## Why Rural Matters 2018-2019 The Time Is Now



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THE RURAL SCHOOL AND COMMUNITY TRUST

A Report of the Rural School and Community Trust

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THE SCHOOL SUPERINTENDENTS ASSOCIATION
With thanks to our longstanding partners at AASA, the School Superintendents Association.


The Rural School and Community Trust is a national nonprofit organization addressing the crucial relationship between good schools and thriving communities. Our mission is to help rural schools and communities grow better together. Working in some of the poorest, most challenging places, the Rural Trust involves young people in learning linked to their communities, improves the quality of teaching and school leadership, and advocates in a variety of ways for appropriate state and federal educational policies, including efforts to ensure equitable and adequate resources for rural schools.

## $\theta$ CollegeBoard

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## Why Rural Matters 2018-2019:

The Time Is Now
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## Executive Summary

Despite greater attention to rural America during and after the 2016 presidential election and bold promises from many national and state leaders, the challenges facing many children and families in rural America still aren't getting the attention they deserve. While some rural schools and places thrive, others continue to face nothing less than an emergency in the education and well-being of children.

The ninth edition of the Rural School and Community Trust's 50-state report on rural education, Why Rural Matters 2018-19: The Time Is Now, shows that nearly 7.5 million public school students were enrolled in rural school districts during the 2016-17 school year-or nearly one of every seven students across the country.

The number is even larger when counting students who attend rural schools, including rural schools within districts classified as "non-rural." By this measure, more than 9.3 million-or nearly one in five students in the U.S.-attend a rural school. This means that more students in the U.S. attend rural schools than in the nation's 85 largest school districts combined.

Nearly one in six of those rural students lives below the poverty line, one in seven qualifies for special education, and one in nine has changed residence in the previous 12 months.

As always, the data in Why Rural Matters 2018-19 are from public sources: the National Center for Education Statistics (NCES), the U.S. Department of Education, and the U.S. Census Bureau. For this report, rural is defined using the three main rural "locale codes" as determined by the U.S. Census Bureau. (See main report for more details.)

Rural schools and students often seem invisible because many leaders never encounter these communities directly or lack a full understanding of rural America's challenges. The majority of rural students attend school in a state where they make up less than 25 percent of public school enrollment. More than one rural student in four lives in states where rural students constitute less than 15 percent of overall enrollment.

Roughly half of all rural students in the U.S. attend school in just 10 states, including some of the most populous, urban states. Texas has the largest number of rural students, followed by North Carolina, Georgia, Ohio, Tennessee, New York, Pennsylvania, Virginia, Alabama, and Indiana. Texas has more rural students than the 17 states with the fewest rural students combined.

Many rural school districts across the U.S. are very small: The median enrollment for U.S. rural districts is only 494 students, and at least half of rural districts in 23 states enroll less than the median. In Montana, North Dakota, and Vermont, at least 90 percent of rural districts have fewer than 494 students. West Virginia, where a majority of public schools are rural, has no small rural school districts, because all 55 districts are countywide systems. Florida, Maryland, Delaware, Louisiana, North Carolina, and Alabama also have no small rural school districts.

At least half of public schools are rural in 12 states: Montana, South Dakota, Vermont, North Dakota, Maine, Alaska, Oklahoma, Nebraska, Wyoming, New Hampshire, Iowa, and Mississippi. At least one-third of all schools are rural in 14 other states.

More Key Findings From This Edition of Why Rural Matters

- More access needed to AP courses Rural students were much less likely than their peers nationwide to pass Advanced Placement (AP) courses to qualify for college credit: 9.5 percent for rural students, compared with 19 percent for all U.S. high school students, 18.8 percent of urban students, and 24.1 percent of suburban students.
- Rural students lead in dual enrollment Rural high school juniors and seniors across the nation were more likely than all students nationally to take dual enrollment courses in high school for college credit: About 23 percent of rural students earned dual enrollment credit ( 20 percent of males and 26 percent of females). Nationwide, 14.4 percent of all males and 17.8 percent of females took at least one dual enrollment course.
- Achievement is good, but varies In the majority of states with enough rural students to make data available, rural students outscored their non-rural peers on the Nation's Report Card, or NAEP (more details below). Rural student achievement ranged from its lowest in Hawaii (where rural students scored much lower than non-rural students) to its highest in Connecticut, Rhode Island and New Jersey (where rural students scored much higher than non-rural students).
- The rural poverty gap (the difference in NAEP performance between rural students in poverty and rural students not in poverty) was greatest in Maryland, Mississippi, and Washington. The gap was narrowest in Pennsylvania, Arkansas, and Montana.
- Many states provided a disproportionately larger share of school funding for rural districts because of the higher relative costs of running rural schools. Twelve states, however, provided disproportionately less funding to rural districts: Nebraska had the greatest disparity, followed by Vermont, Connecticut, Iowa, Rhode Island, Wisconsin, Michigan, Massachusetts,

California, Ohio, Minnesota, and New Jersey.

- Rural school districts in Delaware, North Carolina, and Oklahoma are the three most racially diverse in the nation, our new rural diversity index shows (more details in the full report).
- Nationwide, the communities surrounding schools in rural districts on average had a household income of 2.68 times the poverty line. Rates were lowest in New Mexico (1.74) and highest in Connecticut (5.13).


## Rural Education in the 50 States

This report uses five "gauges" to describe the condition of rural education in each state:
(1) the Importance of rural education, (2) the Diversity of rural students and their families, (3) the Educational Policy Context impacting rural schools and communities, (4) the Educational Outcomes for rural students, and (5) the College Readiness of students in rural schools. Each gauge includes five equally weighted indicators. The higher ranking of a state, the more important or urgent rural education matters are for that particular state. We combine the five average gauge rankings to determine an overall average ranking, the Rural Education Priority ranking.

Our state rankings should not be interpreted to suggest that rural education in low-priority states does not deserve more attention from policymakers. Every state faces challenges in providing a high-quality education for all children. The highest-priority states are where key factors converge to present the most extreme challenges for rural schooling, suggesting the most urgent and comprehensive needs for policymakers' attention.

There are many faces of rural: from remote Native American lands in the West, to small towns in the Great Plains and Midwest, to the Mississippi Delta and Southern "Black Belt," to Appalachia and New England. And rural can look different in each state: a town of a few
thousand people, or tiny communities several hours or even days from the nearest city, as in parts of Alaska. This report looks at statewide averages, which sometimes disguise the variation in rural contexts and conditions in many states. No state can ignore the important issues facing rural students, their schools, and communities.

Meeting the needs of more than nine million children is a challenge and an obligation that demands and deserves the nation's attention. Fulfilling that obligation requires that all of useducators, policymakers, parents, students, and
employers-work to deepen our understanding of rural education issues, moving beyond simplistic notions about rural schools and their communities.

While Why Rural Matters uses data to draw attention to key areas of need in rural education, we hold a strong sense of optimism that change is possible and that examples of creative and successful efforts to address the issues confronting rural education exist and may serve as inspiration for paths forward.

## Key Changes in This Edition of Why Rural Matters

Rather than only use actual NAEP scores, the Educational Outcomes section now combines overall NAEP performance (rural NAEP performance, and the difference in grade 4 and 8 math and reading achievement) in one indicator. Also, College Readiness for the first time includes the rates of rural juniors and seniors passing at least one AP exam, rather than only course participation-and federal data on the number of males and females who took a dual enrollment course toward college credit in high school.

Why Rural Matters 2018-19 also includes a preview of a new measure of racial diversity in rural areas. Analyses of racial inequities and gaps often focus on urban and suburban locales, yet confronting systemic racism and policies that might re-enforce or eradicate it requires understanding of the important role of place and context, including rural communities and schools.

How racially diverse are America's rural school districts? To answer that question more clearly, we've developed the rural diversity index. This index shows that when randomly choosing two students from a school in a random rural
district, there would be less than a one-inthree chance that the students would identify as being from different racial/ethnic backgrounds. Two students chosen randomly in this way are more likely than not to be of a different race or ethnicity only in Delaware ( $56.8 \%$ are), North Carolina (53.8\%), Oklahoma (52.5\%), and Nevada (50.6\%). District levels vary greatly. The Pocantico Hills, N.Y., school district, with about 7,000 students, has the highest diversity index rating in the nation (67.77). Look for our upcoming report in 2020 that will take a more in-depth look at racial diversity in rural areas.

One additional change: Under the Student and Family Diversity gauge in the past, we've used the percentage of students eligible for free or reduced-price school meals as a proxy for poverty levels in schools. Some rural districts don't report this data point, however, and many entire schools now are eligible for discounted lunches. For this report, we use more precise measures: the poverty level in "rural-school communities" (using new federal data that show the average income of the 25 closest households to each school) and the percentage of rural school-age children living in poverty.

## The Top 10 Highest-Priority States in Rural Education

1. MISSISSIPPI: The nearly 235,000 students who attend school in rural Mississippi should be given the highest priority of rural students anywhere in the nation. With one in two schools classified as rural, and half of the state's students enrolled in rural districts, Mississippi's rural schools tend to have large enrollments in relatively poor communities. Nearly one in four rural students lives below the poverty line, and instructional spending for each rural student is nearly $\$ 2,000$ less than the national average. Teacher pay is equally low. It's no accident that educational outcomes are the second-lowest in the U.S. for rural students. College-readiness measures require urgent attention, with low graduation rates and few rural students entering college with credit from AP or dual enrollment courses.
(tie) 2. NORTH CAROLINA: With more than half a million students enrolled in rural school districts, the state's priority rating has soared from 11th to second nationally, in part because new and more accurate measures of students' College Readiness. The state's rural students are at or below the national median on all five collegereadiness indicators. The state's No. 2 overall ranking is likely more representative than earlier rankings of North Carolina's actual status in rural education-a dire situation that needs urgent attention at the state and community levels. Economic conditions are grave in the state's rural areas, with more than one in five schoolaged children living in poverty and per-pupil instructional spending more than $\$ 1,000$ below the national average. Unlike in most other states, North Carolina's rural students have much lower achievement than non-rural students. The most pronounced area of concern is reading, a subject on the NAEP exam for which the difference between 4th and 8th grade scores is less than that of all but two other states (even though those students are distinct groups, not the same ones moving through school). Schools and districts
are large, but transportation costs are surprisingly low.
(tie) 2. ALABAMA shares the ranking of secondhighest in the nation for its overall rural education needs, with more urgent needs than the majority of states on all five gauges of rural school success. Nearly half of Alabama's schools are in rural areas, and one in three students attends school in a rural district. More than one in five of the state's school-aged rural children lives in poverty, and its communities around rural schools are among the poorest in the country. Rural schools and districts are among the nation's largest, and instructional spending is lower for rural students than in all but five other states. NAEP performance is thirdlowest in the U.S. Even more alarming is the relative lack of students' improvement between grades 4 and 8 in math and reading. Nine out of 10 students from rural districts graduate high school, but fewer have earned any college credit than their rural peers in most states.
2. OKLAHOMA'S priority ranking is its highest in a decade. More than half of the state's public schools serve rural communities, and the nearly 200,000 students in rural districts are among the most diverse in the nation in terms of race, specialized needs, poverty, and residential instability. Only Idaho spends less on instruction for each rural student. Rural teacher salaries are low, even after adjusting for lower wages of other occupations. (Jobs in rural areas don't always pay less than the same jobs in non-rural areas, but they often do.) Overall academic performance is low and students show relatively less improvement between grades 4 and 8 than in most other states. Still, Oklahoma's rural students outscore their non-rural counterparts on NAEP, and the performance gap for students living in poverty is among the narrowest in the nation. Two in three rural upperclassmen take the ACT or SAT each year, but relatively few earn college credit through dual enrollment or AP exams.
3. SOUTH DAKOTA is the third most rural state in the nation, with the vast majority of schools in rural areas and two in five students in rural school districts. Many rural classrooms face the disruption of high mobility rates: One in eight students moved in the previous 12 months. As schools nationwide have increased instructional spending on rural students, South Dakota is one of only seven states to decrease spending for rural students. Achievement for rural students is near the national average overall, but not for rural students living in poverty. Very few rural juniors and seniors have passed an AP exam, and one in six rural South Dakota students fails to graduate from high school.
4. WEST VIRGINIA: A newcomer to the top 10, West Virginia saw an increase of more than 4 percent in the absolute number of rural students in the past three years, trending in the opposite direction from the nation overall. Half of the state's schools are in rural districts, and earnings for households in West Virginia's rural districts are very low-barely more than twice the poverty level on average. Only one in 12 rural students changed residences in the past year, but more than one in six qualified for specialized education (including students with disabilities). West Virginia's statewide consolidation efforts have resulted in large schools and districts, and in burdensome transportation costs for rural districts. Rural teacher salaries are $\$ 4,000$ below the national average, even after adjusting for comparable wages in the rural areas. West Virginia's rural students perform well below the national averages in math and reading tests, and also saw less improvement in performance between grades 4 and 8 than their rural peers in other states. Rural graduation rates in the state are just above the national rural average.
5. GEORGIA: In the past three years, the ruralstudent population in Georgia has swelled by more than 83,000 to a total approaching half a million students. The main reason for this
jump is that several school districts previously classified as "town" or "suburban" are now identified as rural, including the 42,000 -student Henry County school district, 30 miles south of Atlanta. In contrast, districts that were and are rural saw a slight decline in enrollment. Schools in Georgia's rural districts tend to be extremely racially diverse, and poverty is prevalent in rural students' households and communities. Schools and districts are large across the state, and instructional spending for each rural student is well below the U.S. average. Student achievement in rural areas is low (well below the performance in non-rural areas), and the state's achievement gap for rural students in poverty ranks Georgia among the 10 highest-priority states on that measure. More than any other gauge, it's the subpar college-readiness results that make Georgia the seventh most serious situation for rural education in the U.S.
6. SOUTH CAROLINA: Four of every 10 schools in South Carolina are in rural areas, compared to less than three in 10 nationwide. More than one in five of the state's nearly 120,000 rural students lives in poverty, and households in rural school districts earn barely twice the poverty level on average. South Carolina's rural districts have some of the nation's highest rates of enrollment for students of color. Instructional spending and teacher salaries are well below national averages, but transportation costs also are relatively low. Rural students' performance on NAEP math and reading tests were among the lowest in the U.S., and the gaps between South Carolina's rural and non-rural students-and between rural students living in poverty and their other rural peersalso were among the nation's widest. However, average improvement in student achievement is high between grades 4 and 8 in both reading and math. Rural students are on par with their non-rural peers on earning AP credits and participation rates for taking college-entrance exams, but have lower graduation rates and
dual enrollment credit rates than rural students nationally.
7. LOUISIANA: The state's overall priority ranking rose from 16th in the last Why Rural Matters report into the top 10. The state has a rural student population of more 92,000 , and one in seven students attends a rural public schoolwith many in relatively poor communities. More than one in five rural school-aged children live below the poverty line. Most remarkably, only about one in 50 rural high school juniors and seniors passed an AP exam (among the nation's lowest rates). The state's education policy context is worse than only three other states. Student achievement for rural students is urgently low, with a wide achievement gap for rural students living in poverty compared with rural peers not living in poverty. The graduation rate of 86 percent is below the national average.
8. FLORIDA has more than 150,000 students attending schools in rural districts. Nearly one in five of the state's rural school-aged children lives in poverty, and rural schools serve a disproportionately high number of students of color. Florida's rural teachers have extremely low salaries, instructional spending for each rural student is very low, and rural students have high rates of mobility (more than one in eight rural students moved in the past year). Student achievement for rural students isn't terribly low, but achievement levels for $8^{\text {th }}$ graders relative those in other states are considerably lower than for $4^{\text {th }}$ graders, suggesting a lack of improvement (although these scores are from two separate cohorts of students). Florida's rural high school students acquire AP credit at high rates, but rarely take advantage of dual enrollment opportunities. And one in five rural Florida students fails to graduate from high school in four years, one of the lowest rural graduation rates in the nation.

## Additional State Highlights

- While nearly half (12 of 25) of the indicators in Why Rural Matters 2018-19 are new or have changed substantially from previous reports, most of the same states still appear among the overall highest-priority states in the nation.
- Nine of the 12 overall highest-priority states are contiguous and mostly in the Southeast, bordered by five other states that rank among the next highest-priority group. These and other high-priority states generally serve a substantially more diverse student population than other states, requiring leaders and voters to find ways to better meet the needs of a diverse rural student population.
- Only Mississippi ranks among the highestpriority states on all five of our gauges. North Carolina is among the highest-priority states on four of the five gauges. Eight statesAlabama, Oklahoma, West Virginia, South Carolina, Louisiana, Florida, Arizona, and Kentucky-are ranked as high priority on three gauges.
- Importantly, 36 states are among the highestpriority states on at least one gauge, showing that nearly every state has rural education issues that need to be addressed.
- Louisiana, Arkansas, and Kentucky saw their priority rankings rise substantially for this report, showing new urgency for attention to rural education issues in those states. Kentucky and Texas saw their priority scores climb by more than 10 places. Nevada and Utah saw the biggest drops in priority rankings, although these states continue to have considerable needs.
- Kentucky's overall priority ranking rose from 26th to 12th. One in three students attends school in a rural area, making rural students critical to the overall educational health of the state. There are high rates of poverty, residential mobility, and students qualifying for special education. State policy does little to help, with high transportation costs and low levels of instructional spending. Rural students perform
poorly overall on NAEP, but the state ranks as moderately strong on measures of students' college readiness.


## Highlights from Why Rural Matters ${ }^{\text { }}$ Five Gauges

1 - Importance of Rural Education in the State

- The 10 highest-priority states on this gauge, which examines the prevalence of rural schools and districts in a state and related measures: Maine, Vermont, South Dakota, North Dakota, Montana, Oklahoma, Mississippi, North Carolina, New Hampshire, and Iowa.
- While Virginia, New York, Pennsylvania, and Michigan rank below the median on this gauge, these states have sizeable rural student populations that are dwarfed by very large urban and suburban districts, affecting their overall priority ranking.


## 2 - Student and Family Diversity

- The highest-priority states on this measure are Nevada, Arizona, South Carolina, Oklahoma, Florida, Kentucky, North Carolina, Louisiana, and New Mexico, along with Mississippi and Arkansas (tied for 10th).
- On this measure, states range from 10.7 percent in Maine (the least diverse) to 56.8 percent in Delaware (the most diverse).
- Some rural districts have no racial diversity at all: 172 rural districts are mono-racial, while only two non-rural districts in the nation have such a lack of diversity.
- States that rank low on this gauge tend to have higher percentages of rural students passing AP exams, less rural poverty, and more rural student mobility. These correlations stress the need to make AP courses and preparation more widely available to rural students.
- Nationally, the communities around schools in rural districts have an average household income that's 2.68 times that of the poverty level. One in six rural communities have average incomes below 1.85 times the poverty level (the federal threshold for reduced-price
meals). All of rural New Mexico is below this threshold, at 1.74 times the poverty line, and some New Mexican Navajo communities have average incomes of only 70 percent of the poverty line. The next-lowest state is Nevada, and the highest state is Connecticut. There are 21 states with average rural-school community incomes less than half of Connecticut's.
- Only Alabama (8.3 percent) and Texas (9.3 percent) do not offer individualized education plans for at least one in 10 of their rural students-suggesting that some students with disabilities go without the services they need even though such services are required by federal law. State funding for special education is sometimes lacking for rural districts, considering the extensive costs for many districts with small enrollment sizes.
- The states with the lowest levels of rural child poverty: Massachusetts ( 3.5 percent), Connecticut ( 4.5 percent), New Jersey (5.7 percent), and Rhode Island (7.3 percent).
- The states with the highest levels of rural child poverty are in the Southwest (New Mexico: 29.7 percent and Arizona: 23.3 percent) and the Southeast/Appalachian regions (Mississippi: 23.1 percent, Louisiana: 22.9 percent, South Carolina: 21.4 percent, North Carolina: 20.7 percent, Kentucky: 21.6 percent, West Virginia: 21.1 percent).
- Rural student mobility is a major issue in some states. Nationally, just under one in nine rural students changed residence in the previous 12 months, from a high of 18.7 percent in Nevada to a low of 6.6 percent in Connecticut. The top five states on this indicator are Nevada, Arizona, Washington, Colorado, and Idaho. Florida also made the top 10 with a rural mobility rate of 12.9 percent.


## 3 - Educational Policy

- The 10 states that most urgently need educational policy to address rural schools' and students' needs better: Florida, Arizona,

Virginia, Mississippi, Louisiana, Indiana, Ohio, Alabama, Illinois, and Missouri.

- Among the lowest-priority states on this gauge are four in the Great Plains (Wyoming,
Nebraska, Kansas, and Montana), two in the Midwest (Minnesota and Michigan), two in the Northeast (Vermont and New York), two Western states (Washington and California), and Delaware and Alaska. Many of these states are dominated by small schools and districts and have stronger investments in public education overall.
- A national average of $\$ 6,367$ is spent on the teaching and learning of each student in rural districts, ranging from state averages of $\$ 4,118$ in Idaho and \$4,737 in Oklahoma to highs of \$14,380 in Alaska and \$13,226 in New York. An astonishing 33 states on average spend less than half the amount of Alaska on instruction for each rural student. Texas invests relatively low amounts on instruction for each rural student $(\$ 5,386)$.
- Many states in the Midwest/Great Plains regions invest relatively high amounts for each rural student's instruction, but about $\$ 3,500$ less per student than most Northeastern states.
- Transportation costs are very high for many rural schools. On average, rural districts only spend about $\$ 10.81$ on instruction for every dollar they spend on transportation. Alaska spends $\$ 25.89$ on instruction for every dollar spent on transportation, possibly because many rural districts are tiny or remote and have fewer bus routes (but sometimes need airplanes and snow machines!). Texas also has low transportation costs in rural schools, spending $\$ 19.28$ on instruction per transportation dollar. Most states have much steeper transportation costs. The hardesthit states are New Mexico, West Virginia, North Dakota, Indiana, and Louisiana. High transportation costs can shift money away from instruction.
- States supply $\$ 1.23$ on average to rural districts for every $\$ 1$ allocated from local tax revenue.

Rural districts in Nebraska receive only 27 cents of state funding for every dollar of local revenue they raise. In Vermont, rural districts receive \$14 from the state for every local dollar-the highest rate in the nation, and nearly three times the rate of next-highest New Mexico (\$4.44 per local dollar, because of virtually no tax base in some rural sections of the state).

- Alarmingly, in the past three years since the last Why Rural Matters report, 22 states have decreased their state contributions for every local dollar invested in rural schools. Tennessee has seen the greatest drop ( $\$ 1.68$, down from $\$ 2.11$ per local dollar).
- The national average instructional salary for rural school districts was $\$ 69,797$, lower than for "town" (\$72,165), urban (\$73,357), and suburban districts $(\$ 74,153)$, even after adjusting for geographic variation-speaking to the need for more action by policymakers. Many rural districts cannot keep pace with larger districts on salaries, even though they sometimes serve the neediest student populations.
- Even after adjusting for geographic variation, average spending on educators' salaries in rural districts varies widely: Kansas had the nation's lowest average of $\$ 54,454$, and Alaska the highest at $\$ 102,736$. States with the lowest average salaries for rural educators: Kansas, Arkansas, Oklahoma, Florida, Missouri, Mississippi, North Dakota, South Dakota, Colorado, Arizona, Tennessee, and Illinois.
- The states with the highest average rural educator salaries: Alaska, New York, Rhode Island, Connecticut, and Wyoming.


## 4 - Educational Outcomes

- The 10 highest-priority states on this gauge: Alabama, Mississippi, North Carolina, Virginia, Louisiana, South Carolina, Florida, West Virginia, Texas, and New Mexico.
- Improvement in rural student achievement from $4^{\text {th }}$ to $8^{\text {th }}$ grade in math and reading was closely related to school size. States with higher
percentages of small rural schools and districts tended to improve more than others in math and reading. Though modest, these findings are consistent with other studies that have shown the benefits of smaller learning environments.
- The academic performance gap between students in poverty and their peers is well documented. States with the largest rural poverty gap, meaning students from lowerincome rural homes perform the worst relative to other rural students in their state: Maryland, Mississippi, Washington, New Mexico, South Dakota, Utah, South Carolina, Georgia, Colorado, and Idaho. States with the smallest rural poverty gap: Pennsylvania, Arkansas, Montana, Oklahoma, Hawaii, New York, Minnesota, and Delaware.
- Nationwide, rural students narrowly outscore non-rural students on NAEP in reading and math. But states vary: Non-rural students outperformed rural students by the widest margin in Hawaii, more than twice as large as the rural disadvantage in any other state except South Carolina. The rural advantage was largest in Rhode Island, Connecticut, and New Jersey.


## 5 - College Readiness

- The highest-priority states on this gauge: Nevada, Washington, California, Alaska, Rhode Island, West Virginia, Georgia, Arizona, Michigan, and Oklahoma and Montana (tied for 10th).
- Alaska had the nation's lowest rural graduation rate at 72.3 percent. Rates in other states ranged from 76.4 percent in New Mexico to 94.2 percent in Connecticut. States with the highest rural graduation rates are primarily those whose rural students scored well on NAEP exams.
- Only about one in 40 rural high school juniors and seniors or fewer had passed AP exams in six states: North Dakota ( 0.6 percent), Nebraska (1 percent), Nevada (1.1 percent), Kansas (1.3 percent), Louisiana (2.2 percent), and Missouri (2.5 percent).
- More than one in five rural students earned AP credit in Connecticut ( 32.5 percent), Massachusetts (24.0 percent), Maryland (22.9 percent), and New Jersey (22.4 percent).
- Many states that ranked high on AP exam success ranked low for dual enrollment, suggesting that students often choose one over another.
- In 22 states, at least half of juniors and seniors in rural districts had taken the ACT or SAT in the previous year.
Only in Washington, Oregon, California, and Arizona did fewer than one in four rural juniors and seniors take one of the tests.
- Half of Idaho's rural juniors and seniors took dual enrollment courses. Iowa, Indiana, and Kansas had more than 40 percent of students take the courses.
- No rural students in Rhode Island took a dual enrollment course, while fewer than 10 percent of rural juniors and seniors did in Massachusetts, California, New Hampshire, and Nevada.
- Rural females were more likely than their male classmates to take dual enrollment courses: 26.1 percent for females, 20.1 percent for males. Only in Utah were males much more likely than females to take dual enrollment courses ( 42.4 percent compared to 37.5 percent). Females were especially more likely than males to take dual enrollment courses in South Dakota, Kentucky, Delaware, and Missouri.


## Introduction

Why Rural Matters 2018-19 is the ninth in a series of reports analyzing the contexts and conditions of rural education in each of the 50 states and calling attention to the need for policymakers to address rural education issues in their respective states.

While it is the ninth in a series, this report is not simply an updating of data from earlier editions. We release this report in the midst of the 2020 presidential campaign, an election cycle in which issues such as funding for early childhood education and the education of migrant children continue to be pressing issues and "hot button topics" for policymakers, educators, families, and others who care about public education. Within this context, the analyses and data presented in Why Rural Matters 2018-19 are intended to help inform policy discussions on these and other important issues as they manifest in rural settings. Attentive to these aims, the report includes an updated analysis on early childhood education.

In this report, as in those previously, we have deliberately altered the statistical indicators and gauges to call attention to the variability and complexity of rural education with an eye toward the most important issues affecting it. Our intent is not to compare states in terms of their differing rates of progress toward an arbitrary goal. Rather, our intent is (1) to provide information and analyses that highlight the priority policy needs of rural public schools and the communities they serve, and (2) to describe the complexity of rural contexts in ways that can help policymakers better understand the challenges faced by their constituencies and formulate policies that are responsive to those challenges.

In 2016-17 (the school year corresponding to the data used in this report), $7,475,738$ public
school students were enrolled in rural school districts (the unit of analysis for nearly all of the indicators used in the report). That is just over $15 \%$ of the nation's total public school enrollment. However, this number does not include students who attend a rural school within a district that is designated as non-rural. In the same school year, a total of $9,318,822$ students (19.3\%) attended a rural school (i.e., a school designated as rural, whether in a rural or non-rural district). ${ }^{i}$ Meeting the needs of over nine million children is a challenge and an obligation that demands and deserves the nation's attention. Meeting that challenge and fulfilling that obligation require that we examine issues from multiple perspectives in order to develop informed understandings that move beyond simplistic notions about rural schools and their communities.

## The Data

The data used for Why Rural Matters 2018-19 were compiled from information collected and maintained by the National Center for Education Statistics (NCES), the U.S. Department of Education, and the U.S. Census Bureau. All data used here are available from those sources to the general public, and may be downloaded for inspection and analysis. ${ }^{\text {ii }}$

For this report, rural is defined using the 12-item, urban-centric NCES locale code system released in 2006. Rural schools and districts used in this report are those designated with locale codes 41 (rural fringe), 42 (rural distant), or 43 (rural remote). Versions of Why Rural Matters prior to the 2009 version used a combination of schoollevel and district-level data. Improvements in the urban-centric locale code system (specifically, assigning district-level locale based upon the locale where the plurality of students in the district attend school) make it possible for us
to be consistent and use districts as the unit of analysis for the indicators derived from NCES data. This is particularly important because policy decisions impacting rural education (e.g., REAP funding) are made using district-level designations of rural status. Moreover, local policies to address many of the issues discussed in this report tend to be crafted at the district level.

Why Rural Matters 2018-19 includes a feature section that investigates a timely topic as it pertains to rural areas: early childhood education. The early childhood education section updates that of the 2015-16 Why Rural Matters report, reflecting its continuing importance. Supporting early years education offers much promise for improving child outcomes in rural areas, yet young children are often the most adversely impacted both in terms of the challenges they face and the resources made available to them and their families.

Why Rural Matters 2018-19 uses data only for regular public education agencies (local school districts and local school district components of supervisory unions). We exclude charter schoolonly districtsiii and specialized stateand federally-directed education agencies focused primarily on vocational, special, or alternative education.

## Gauging Rural Education in the 50 States

The report offers five gauges to describe the condition of rural education in each state:
(1) the Importance of rural education, (2) the Diversity of rural students and their families, (3) the Educational Policy Context impacting rural schools and facing rural communities across the nation, (4) the Educational Outcomes of rural students, and (5) the College Readiness of students in rural schools in each state. Each gauge includes five equally weighted indicators,
for a total of 25 indicators. Instances where data were not available are denoted with "NA."

The higher the ranking on a gauge, the more important or urgent rural education matters are for that particular state. The gauges and their component indicators are:

## Importance Gauge

- Percent rural schools
- Percent small rural school districts
- Percent rural students
- Number of rural students
- Percent of state education funds to rural districts


## Student and Family Diversity Gauge

- Rural diversity index
- Poverty level in rural school communities
- Percent rural IEP (Individualized Education Plan) students
- Percent of rural school-aged children in poverty
- Percent rural household mobility

Educational Policy Context Gauge

- Rural instructional expenditures per pupil
- Ratio of instructional to transportation expenditures
- Median organizational scale
- State revenue to schools per local dollar
- Adjusted salary expenditures per instructional FTE (Full Time Equivalent)


## Educational Outcomes Gauge

- Rural NAEP improvement
(Grade 4 to Grade 8 math)
- Rural NAEP improvement (Grade 4 to Grade 8 reading)
- Overall rural NAEP performance (Grades 4 and 8, math and reading)
- Rural NAEP poverty disadvantage
- Rural advantage for NAEP performance


## College Readiness Gauge

- Estimated graduation rate in rural districts
- Percent rural juniors and seniors in dual enrollment (males)
- Percent rural juniors and seniors in dual enrollment (females)
- Percent rural juniors and seniors passing at least one AP exam
- Percent rural juniors and seniors taking the ACT or SAT

Some, but not all, of the indicators used in this report are the same as in previous versions. Consequently, year-by-year comparisons of state rankings are potentially misleading. The possibilities for assembling indicators to describe the context, conditions, and outcomes of rural schools and communities are virtually unlimited. We acknowledge the complexity of rural America generally and of 50 individual state systems of public education, and we recognize that perspectives offered by the indicators used here represent only one of many good ways of understanding rural education in the U.S.

For each of the five gauges, we added the state rankings on each indicator and then divided by the number of indicators to produce an average gauge ranking. iv Using that gauge ranking, we organized the states into quartiles that describe their relative position with regard to other states on that particular gauge. For the Importance and Educational Policy Context gauges, the four quartiles are labeled "Notable," "Important," Very Important," and "Crucial." For the Student and Family Diversity, College Readiness, and Educational Outcomes gauges, the four quartiles are labeled "Fair," "Serious," "Critical," and "Urgent." To help identify and quantify relationships between and among indicators, we also conducted bivariate correlation analyses for the indicators within each gauge (results are reported later in this section).

Finally, we combined the five average gauge rankings to determine an overall average ranking, ${ }^{\text {v }}$ which we term the Rural Education Priority ranking.

Certain states have retained a high rural education priority ranking from year to year despite the fact that we use different indicators and gauges. For these states, rural education is clearly both important and in urgent need of attention no matter the gauges used.

One final caution from earlier reports is worth repeating. Because we report state-level data for most indicators, our analyses do not reveal the substantial variation in rural contexts and conditions within many states. Thus, while an indicator represents the average for a particular state, in reality there may be rural regions within the state that differ considerably from the state average. This is especially true for indicators like diversity and poverty status, since demographic characteristics such as these tend to be distributed unevenly across a state, and are often concentrated variously in specific communities within the state. In the case of such indicators, the statewide average may not reflect the reality in any one specific place, with far higher rates in some places and far lower rates in others.

Consider rural Pennsylvania, for instance. With a diversity index of $16.8 \%$, the state ranked $40^{\text {th }}$ in terms of racial diversity. However, Pennsylvania's rural district of East Stroudsburg had a diversity index of $64.0 \%$. Compare this to the state of Delaware - despite having the most rural racial diversity of any state, its index of $56.8 \%$ was still less than that of East Stroudsburg. Take Alaska, which had the lowest graduation rate among rural districts of any state in the U.S. at $72.3 \%$. This conceals the fact that Alaska's rural districts of Unalaska City, Petersburg Borough, and Dillingham City all had graduation rates of 94.0\% (on par with Connecticut's nation-leading rate of $94.2 \%$ in its rural districts). It is our hope in
such cases that the presentation of state-averaged indicators will prompt more refined discussions and lead to better understandings of all rural areas. Moreover, we hope that the indicators and gauges used here can serve as a model for states, districts, and policy-makers to examine the publicly available data themselves and at a grain-size that allows for a more finely-tuned understanding and approach to addressing the true needs of all students in their state.

## Changes to the Gauges in This Edition

In an effort to refine and better reflect our thinking about the contexts and characteristics of rural education, we made some changes from previous reports with regard to the selection and configuration of indicators. As in the last report, the current report includes 25 indicators organized into five gauges. The major differences from the previous report to this one are how we measure diversity, poverty, educational outcomes and college readiness.

The Student and Family Diversity gauge contains three indicator updates. In past reports, we have used the percentage of students eligible for free or reduced-price lunches as a proxy for poverty status. This was no longer a reliable option for two reasons: First, over $10 \%$ of the rural districts did not report this data. Second, recent policy changes have allowed many entire schools to be eligible for discounted lunches, making it hard to estimate the percentage of students in poverty. Because the research literature strongly ties poverty to the nature of one's educational experiences, we felt it important to replace this indicator with a pair of complementary indicators that measure aspects of poverty: poverty level in rural school communities and percent of rural school-aged children in poverty. We also sought out a more inclusive measure of racial diversity than the White/non-White dichotomy we had used in previous reports; this led us to create the rural diversity index. These
three indicators are explained in more detail in the following section.

The Educational Outcomes gauge looks much different from in past reports. Rather than report the actual scores for four or five of the NAEP assessments, we created a more robust set of indicators to examine educational outcomes from multiple perspectives. We combined absolute overall NAEP performance into a single indicator (rural NAEP performance, grade 4 and grade 8, math and reading). Then, recognizing that students come to school districts from very different starting points, we wanted to measure the difference between grade 4 outcomes and grade 8 outcomes. We included one indicator for math (rural NAEP improvement, grade 4 to grade 8 math) and one for reading (rural NAEP improvement, grade 4 to grade 8 reading). We also wanted to gauge how large the educational outcome gap was between rural students in poverty and rural students not in poverty, so we created a fourth indicator (rural NAEP poverty disadvantage). Finally, noticing that rural peers tended to outperform their non-rural peers in most states, we created an indicator to measure this advantage (rural advantage for NAEP performance)-in states where the non-rural students performed better, this indicator has a negative value.

The College Readiness gauge returns after its successful debut in the past report. However, there are a few updates to make it more accurate and actionable. Thanks to the U.S. Department of Education's Civil Rights Data Collection, we were able to obtain the number of males and of females in each school taking a dual enrollment course in order to earn college credit while in high school. This allowed us to estimate the percent rural juniors and seniors in dual enrollment (males) and the percent rural juniors and seniors in dual enrollment (females). Another improvement involves Advanced Placement (AP) course-taking. Based on feedback from the
past report, we include percent rural juniors and seniors passing at least one AP exam, a measure of $A P$ success rather than just participation.

## Notes on Methodology

Readers of Why Rural Matters should consider the following points when reviewing this report.

First, the quartile categories used to describe a state's position on the continuum from 1-50 are arbitrary, and are used merely as a convenient way to group states into smaller units to facilitate discussion of patterns in the results. Thus, there is very little difference between the "Crucial" label assigned to South Carolina based on its ranking of $13^{\text {th }}$ on the Educational Policy Context gauge and the "Very Important" label assigned to Texas based on its ranking of $14^{\text {th }}$ on the same gauge. ${ }^{\text {vi }}$

Second, we use regional terms loosely with the intent of recognizing nuances in regional identities and representing more clearly the contexts within which we discuss specific relationships between individual states and shared geographic and cultural characteristics. For example, a state like Oklahoma may be referred to as a Southern Plains state in some
contexts and as a Southwestern state in others. That is because Oklahoma is part of regional patterns that include Southern Plains states like Kansas and Colorado, but it is also part of regional patterns that include Southwestern states like New Mexico.

Third, the ranking system should not be interpreted to suggest that rural education in low priority states does not deserve attention from policymakers. Indeed, every state faces challenges in providing a high-quality educational experience for all children. The highest priority states are presented as such because they are states where key factors that impact the schooling process converge to present the most extreme challenges to rural schooling, and so suggest the most urgent and most comprehensive need for policymakers' attention. As we mentioned previously, variation within state-level data should be recognized as challenges are considered. Although some states do not appear on the high priority list, variation within those states may identify high need situations, meaning that no state has the luxury of ignoring the important issues facing rural students.

## Results

The data for each state and state rankings for each indicator are presented in the charts and figures on pages 94-143. The results for each indicator are summarized and discussed
below. To provide some context and to aid in making comparisons, national level results are presented in Table 1.

## Table 1. National Rural Statistics

## Importance Gauge

| Percent rural schools | $28.5 \%$ |
| :--- | ---: |
| Percent small rural districts (fewer than 494 students) | $49.9 \%$ |
| Percent rural students | $15.4 \%$ |
| Number of rural students (median = 95,965) | $7,475,738$ |
| Percent state education funds to rural districts | $16.9 \%$ |

## Student and Family Diversity Gauge

Rural diversity index 31.9\%
Poverty level in rural school communities
Percent rural IEP students
(Individualized Education Plan)
Percent of rural school-aged children in poverty
15.4\%

Percent rural household mobility

## College Readiness Gauge

Estimated graduation rate in rural districts
Percent rural juniors and seniors in dual enrollment (males)

Percent rural juniors and seniors in dual enrollment (females)
Percent rural juniors and seniors passing at least one AP exam

Percent rural juniors and seniors taking

## Importance Gauge

 Importance Gauge IndicatorsFor this gauge, we used both absolute and relative measures of the size and scope of rural education to characterize the importance of rural education to the well-being of the state's public education system as a whole. In the following, we have defined each of the indicators in the Importance gauge and summarized state and regional patterns observed in the data. ${ }^{\text {vii }}$

## Educational Policy Context Gauge

Rural instructional expenditures per pupil \$6,367
Ratio of instructional to transportation expenditures $\$ 10.81$
Median organizational scale (divided by 100) 2,275
Ratio of state revenue to local revenue \$1.23
Adjusted salary expenditures per instructional FTE $\$ 69,797$

Educational Outcomes Gauge

| Rural NAEP improvement <br> (Grade 4 to Grade 8 math) | -0.056 |
| :--- | :---: |
| Rural NAEP improvement |  |
| $\quad$ (Grade 4 to Grade 8 reading) | -0.027 |
| Overall rural NAEP performance |  |
| $\quad$ (Grade 4 and 8, math and reading) | 0.022 |
| Rural NAEP poverty disadvantage |  |
| Rural advantage for NAEP performance | -0.559 |

- Percent rural schools is the percent of regular elementary and secondary public schools designated as rural by NCES, regardless of whether they are located in a rural-designated district. The higher the percent of schools, the higher the state ranks on the Importance gauge.

The national average for the percent of rural schools across the states is $28.5 \%$, but states vary considerably from a low of $8.6 \%$ in Rhode

Island to a high of $74.4 \%$ in Montana. Half or more of all public schools are rural in 12 states (in descending order: Montana, South Dakota, Vermont, North Dakota, Maine, Alaska, Oklahoma, Nebraska, Wyoming, New Hampshire, Iowa, and Mississippi) and at least one-third of all schools are rural in 14 other states. In general, states with a high percentage of rural schools are those where sparse populations or challenging terrain make it difficult to transport students to consolidated regional schools in non-rural areas, and those where there has been less push to consolidate or successful resistance to consolidation. Predominantly urban states on the east and west coasts and in the Great Lakes region have the smallest percentages of rural schools.

- Percent small rural school districts is the percent of rural school districts that are below the median enrollment size for all rural school districts in the U.S. (median = 494 students). The higher the percent of districts with enrollments below 494, the higher the state ranks on the Importance gauge.

At least half of all rural districts are smaller than the national rural median in 23 states. In three states (Montana, North Dakota, and Vermont), at least $90 \%$ of the rural districts have fewer than 494 students. States with few or no small rural districts are located primarily in the Southeast and Mid-Atlantic, regions that are characterized by consolidated, county-wide districts. West Virginia, where more than half of all public schools are in rural communities, does not have a single small rural school district because all 55 of the state's school districts are countywide systems. Six other states (Florida, Maryland, Delaware, Louisiana, North Carolina, and Alabama) also have no small rural school districts.

- Percent rural students is a measure of the relative size of the rural student population, and is calculated as the number of public school students enrolled in rural districts, whether
they attend rural schools or not, divided by the total number of public school students in the state. It excludes students attending rural schools that are located in districts that NCES designates as urban, suburban, or town. ${ }^{\text {viii }}$ The higher the percent of rural students, the higher the state ranks on the Importance gauge.

Just over 15\% of all public school students were enrolled in districts classified as rural in the 2016-17 school year. In only two states were more than half of all students enrolled in rural districts: Vermont (54.9\%) and Maine (51.6\%). In seven other states (Mississippi, South Dakota, North Dakota, North Carolina, Alabama, West Virginia, and New Hampshire), over one-third of the students are enrolled in a rural district. In 13 states, rural districts make up less than $10 \%$ of the students in the state.

- Number of rural students is an absolute, as opposed to relative, measure of the size of the rural student population. The figure given for each state represents the total number of students enrolled in public school districts designated as rural by NCES. The higher the enrollment number, the higher the state ranks on the Importance gauge.

Roughly half of all rural students in the U.S. attend school in just 11 states, including some of the nation's most populous and urban states (in order of rural enrollment size: Texas, North Carolina, Georgia, Ohio, Tennessee, New York, Pennsylvania, Virginia, Alabama, Indiana, and Michigan). Texas has more rural students than the combined total of the 17 states with the fewest rural students.

## - Percent state education funds going to rural

 schools represents the proportion of state PK-12 funding that goes to school districts designated by NCES as rural. State funding as defined here includes all state-derived revenues that are used for the day-to-day operations of schools. Thus, capital construction, debt service, and other long-term outlays areexcluded. The higher the percent of state funds going to rural education, the higher (more crucial) the state ranks on the Importance gauge.

It is no surprise that states ranking high on percent rural schools and percent rural students also rank high on this indicator (i.e., the larger the proportion of rural schools and rural students, the larger the proportion of funding that goes to them). Many states provide a disproportionately larger amount of funding to rural districts to account for challenges such as teacher recruitment and retention, among other needs. However, the following 12 states provide disproportionately less funding to rural districts (beginning with the most disadvantageous to rural districts): Nebraska, Vermont, Connecticut, Iowa, Rhode Island, Wisconsin, Michigan, Massachusetts, California, Ohio, Minnesota, and New Jersey.

## Importance Gauge Rankings

To gauge the importance of rural education to the overall educational system in each state, we averaged each state's ranking on the individual indicators, giving equal weight to each (see Table 2).

Except for Alaska, all of the states classified as either Crucial or Very Important on this gauge are located in one of two contiguous blocks: Northern New England (Vermont, New Hampshire, and Maine) or a large chain of 21 states beginning with Idaho and stretching southeast through the Dakotas, the Midwest, and ending with the Carolinas and the southern states of Alabama, Mississippi, and Georgia (see the Importance Gauge map for a visualization of these regional patterns). Illinois' notable absence from this block is due to the dominating statistical impact of the urban Chicago region.

The six Northern New England and Prairie/ Plains states located within the top six most

## Table 2. Importance Gauge Rankings

How important is it to the overall public education system of the state to address the particular needs of schools serving rural communities? These rankings represent the average of each state's score on five indicators. The higher the average ranking (i.e., the closer to ranking number 1 ), the more central it is to the health of the state's overall education system.

| Crucial | Very <br> Important |  | Important | Notable |  |  |  |
| :--- | ---: | :---: | :--- | :--- | :--- | :--- | :--- |
| ME | 8.8 | AK | 18.0 | VA | 25.4 | CO | 33.0 |
| VT | 9.8 | TN | 18.8 | MI | 25.6 | CA | 33.2 |
| SD | 10.2 | AR | 19.0 | PA | 26.0 | AZ | 33.8 |
| ND | 11.8 | KS | 19.0 | MN | 26.4 | CT | 34.8 |
| MT | 12.0 | MO | 19.0 | NM | 27.0 | MA | 36.2 |
| OK | 12.6 | WV | 19.2 | NY | 27.8 | NJ | 36.4 |
| MS | 14.2 | GA | 20.2 | SC | 29.0 | FL | 39.4 |
| NC | 15.0 | ID | 21.6 | IL | 29.6 | DE | 39.6 |
| NH | 16.0 | IN | 21.8 | OR | 31.6 | MD | 40.0 |
| IA | 16.8 | OH | 22.6 | LA | 32.0 | NV | 41.2 |
| AL | 17.0 | WI | 24.8 | WA | 32.0 | UT | 41.8 |
| KY | 17.6 | TX | 25.2 |  |  | RI | 43.2 |
| NE | 17.8 | WY | 25.2 |  |  | HI | NA |
|  |  |  |  |  |  |  |  |

Note: Numbers are rounded to the nearest tenth.
crucial positions generally score high on all the indicators except number of rural students, on which none of them ranks higher than $15^{\text {th }}(\mathrm{OK})$. Three rank in the bottom quartile. All are states with smaller student enrollments overall, so the total number of rural students is smaller even though the percent of rural students is high.

Over half of all rural students (4.1 million, or $55 \%$ ) are in states ranked in the top quartile for the number of rural students indicator but only three of those states (North Carolina, Mississippi, and Alabama) are among the top quartile in the overall Importance gauge; five others (Tennessee, Indiana, Texas, Ohio, and Georgia) are in the second quartile.

Four of the 13 states with the largest rural student populations rank below the median
on the overall Importance gauge. These four states - Virginia, New York, Pennsylvania, and Michigan- have large urban populations that dwarf even a relatively sizable rural population. They rank low on the Importance gauge despite ranking high on the number of rural students indicator simply because they rank low on almost every other indicator in the gauge. For example, they average a ranking of $29^{\text {th }}$ on the percent rural students indicator and none of them ranks higher than $25^{\text {th }}$ on that indicator (Virginia).

See page 63 for a map showing regional patterns.

## Student and Family Diversity Gauge Student and Family Diversity Gauge Indicators

Each Why Rural Matters edition has examined student diversity in rural education. Achievement gaps associated with economic status, race and ethnicity, resource allocation, special education (IEP, or Individualized Education Plan) status and transience (i.e., residential stability) are widely discussed in the research literature and acknowledged in educational policy. In the Student and Family Diversity gauge, we compared rural student and family characteristics across the 50 states on terms that policymakers often define as relevant to state and national education goals. In this section, we define each of the indicators in the Student and Family Diversity gauge and summarize state and regional patterns observed in the data.

- Rural diversity index is a measure of racial heterogeneity at the school level. Specifically, if you were to randomly choose a school in a rural district, and then choose two students at random from within that school, the rural diversity index is the percent chance that these two students would be of a different race. The higher the rural diversity index, the higher the ranking on the Student and Family Diversity gauge.

In previous reports, we measured the percentage of non-White rural students in each state. This newly-developed indicator offers advantages over the former method. First, rather than lumping all non-White racial groups into a single category, this indicator accounts for differences between each of the seven NCES race codes, reflecting a much more robust and accurate sense of what is meant by "diversity." Second, this indicator better measures the level of desegregation by defining diversity at the school level rather than the district level. Under the former method, a state having large populations of White and Black students who attended separate schools would be rated as highly diverse. To score high on this indicator, the rural students throughout the state must not only be of different racial groups, but there must be significant racial diversity at the school level.

How racially heterogeneous are America's rural districts? If you were to randomly choose two students from a school in a random rural district, there would be a $31.9 \%$ chance that the students would identify as different racial groups. The range in rural diversity index among states is very large-from $10.7 \%$ in Maine to $56.8 \%$ in Delaware, where two randomly chosen students are more likely than not to be of different racial groups. This "more likely than not" situation also occurs in North Carolina (53.8\%), Oklahoma (52.5\%), and Nevada (50.6\%). At the district level, some of the values are much higher; of the 7,000+ rural districts in the U.S., Pocantico Hills (NY) has the distinction of having the highest diversity index with $67.7 \%$. There are also many districts with lower values. In fact, 172 rural districts have a diversity index of $0.0 \%$, meaning that every school in those districts is monoracial; this is true of only two non-rural districts. Having a low diversity index does not necessarily mean that a school is primarily White. For instance, Tornillo ISD in Texas has a diversity index of $0.4 \%$. Of the district's 1,133 students, all but two identify as Hispanic.

States with a rural diversity index above $33 \%$ are in a nearly contiguous block starting from the Pacific Coast states and extending down across the southern half of the U.S. to the Atlantic Coast, where the block reaches as far north as New Jersey (see the indicator map page 74 for a visualization of this block). The two notable exceptions within this geographic block are Utah (27.2\%) and New Mexico (26.7\%).

## - Poverty level in rural school communities is

 a measure of the economic level of the school communities in rural districts. For each school, the National Center for Education Statistics collected data using the American Community Survey on the 25 nearest households with school-aged children. A weighted average of these households' incomes was then reported as a percentage of the poverty line. ${ }^{\text {ix }}$ The lower the percentage, the greater the level of poverty of the school communities, and the higher the state ranks on the Student and Family Diversity gauge.Nationally, the communities around schools in rural districts have an average household income 2.68 times ( $268 \%$ ) that of the poverty line. Although only 1 in 200 rural school communities has an average income below the poverty line, 1 in 6 has an average income below $185 \%$ of the poverty line (which is the federal cutoff for reduced price meals). In fact, the entire state of New Mexico is below this threshold with a rural school community average of $174 \%$ of the poverty line. This is the state average-some rural New Mexican Navajo school communities have average incomes of only $70 \%$ of the poverty line.

Other than New Mexico as an outlier, values on this indicator range from 205\% (Nevada) up to 513\% (Connecticut). There are 21 states with average rural school community incomes less than half that of Connecticut's. States with relatively low-income rural school communities are concentrated in the Southwest and the

Deep South, along with a handful in the Pacific Northwest and Appalachia.

## - Percent rural IEP students represents

the percent of rural students who have an Individualized Education Plan (IEP) indicating that they qualify for special education services. The higher the percent of IEP students, the higher the state ranks on the Student and Family Diversity gauge.

Students with IEPs require additional services only partly supported by supplemental federal funds, placing additional responsibilities on state and local funds. Except for Alabama (8.3\%) and Texas (9.3\%), every state offers IEPs for at least one in 10 of their rural students. Seven states offer special education services for more than one in six rural students: Pennsylvania (18.9\%), New Jersey (18.9\%), Oklahoma (17.8\%), Maine (17.3\%), Indiana (17.2\%), West Virginia (17.2\%), and Massachusetts (16.8\%).

## - Percent of rural school-aged children in poverty represents the percent of rural

 children between the ages of 5 and 17 living in a household with an income below the poverty line. The higher the poverty rate, the higher the state ranks on the Student and Family Diversity gauge.Poverty is consistently correlated with most educational outcomes, so it is essential that this report include some measures of poverty. Unfortunately, recent shifts in how discounted meal eligibility is reported make this a less reliable measure of poverty than it once was. Thus, in this report, we introduce two new measures of poverty: poverty level in rural school communities and percent of rural school-aged children in poverty. Each has its limitations, but they work together to describe the degree of poverty within each state. The main limitation of percent of rural school-aged children in poverty is that it does not differentiate between children who are attending public school and those who
are not. Some children in this age group may be attending private schools, home schools, or other alternative school settings, and others may not be attending school at all (either because they haven't started yet, have already finished, or have dropped out). Still, by measuring the percent of rural children living in poverty in each state, we hope to approximate the poverty levels within the rural school districts of each state. This indicator is new, and should not be compared directly to the discounted meal eligibility percentage of previous reports. Discounted meal options are available to students whose families earn below $185 \%$ of the poverty line; the current indicator measures more intense poverty by only counting households below the actual poverty line.

The four states with the lowest levels of rural child poverty are all located in the Northeast: Massachusetts (3.5\%), Connecticut (4.5\%), New Jersey (5.7\%), and Rhode Island (7.3\%). States with the highest levels of rural child poverty are located in the Southwest (New Mexico: 29.7\%, Arizona: 23.3\%) and the Mid-South/Southeast/ Appalachian regions (Mississippi: 23.1\%, Louisiana: $22.9 \%$, South Carolina: $21.4 \%$, North Carolina: 20.7, Kentucky: 21.6\%, West Virginia: 21.1\%). Except for Florida ( $11^{\text {th }}$ in child poverty and $26^{\text {th }}$ in school community poverty), each of the states ranking in the highest quartile of rural child poverty also ranks among the 15 states with the lowest income rural school communities. Six of the states with the highest rural child poverty rates also rank in the highest quartile on the racial diversity index (Arizona, Louisiana, South Carolina, North Carolina, Florida, and Oklahoma).

- Percent rural student mobility represents the percent of households with school-age children who changed residences within the previous 12 months, per U.S. Census figures. Mobility disrupts consistency in teaching and learning and has been associated with lower academic achievement in the research literature. The higher the mobility rate, the
higher the state ranks on the Student and Family Diversity gauge.

Nationally, just under one in nine rural students has changed residence in the past 12 months, ranging from a low of $6.6 \%$ in Connecticut to a high of $18.7 \%$ in Nevada. Western states rank highest on this indicator, with Nevada, Arizona, Washington, Colorado, and Idaho making up the top five. In all, nine of the top 10 highest-mobility states are west of the Mississippi River (the exception is Florida, with a rural mobility rate of $12.9 \%$ ). Among the continental states in the least-mobile quartile, only Iowa (9.1\%), New Mexico (8.5\%), and Wisconsin (7.9\%) are west of the Mississippi.

## Student and Family Diversity Gauge Rankings

To gauge the diversity of rural students and families in each state, we averaged each state's ranking on the individual indicators, giving equal weight to each indicator (see Table 3).

States in the top quartile (i.e., the highest priority quartile, labeled urgent) on the Student and Family Diversity gauge are mostly clustered in the Southeast, the Southwest, and the West Coast (Kentucky is the lone exception). Among the indicators, percent of rural schoolaged children most closely parallels the overall gauge ranking, with eight of the 13 top-quartile states for the gauge also scoring in the top quartile for that indicator. By contrast, only two of the states in the highest priority quartile also placed in the top quartile in terms of the percent of rural students who qualify for special education services (i.e., students with IEPs). See page 64 for a map showing regional patterns.

To investigate the relationships among the different indicators, we ran bivariate correlation analyses among the rankings for these five indicators. Not surprisingly, the strongest correlation ( $r=-.75$ ) was between our two measures of poverty. The next strongest were a negative correlation ( $r=-.49$ ) between poverty

## Table 3. Student and Family Diversity Rankings

How important is it to the overall public education system of the state to address the needs of diverse populations in schools serving rural communities? These rankings represent the average of each state's score on five indicators. The higher the average ranking (i.e., the closer to ranking number 1), the more important it is for policymakers to address diversity issues in rural communities in their state.

| Urgent | Critical | Serious |  | Fair |  |  |  |
| :--- | ---: | :--- | :--- | :--- | :--- | :--- | :--- |
| NV | 9.0 | AK | 19.6 | TX | 24.0 | MD | 33.4 |
| AZ | 9.2 | WA | 20.2 | DE | 25.2 | NE | 34.4 |
| SC | 9.6 | SD | 20.4 | VA | 26.2 | VT | 34.8 |
| OK | 10.2 | ID | 20.6 | MT | 27.6 | WI | 35.0 |
| FL | 13.2 | MO | 20.8 | NY | 27.8 | NH | 36.2 |
| KY | 14.0 | CA | 21.0 | MN | 28.6 | MA | 36.4 |
| NC | 16.0 | UT | 21.6 | WY | 28.8 | ND | 38.0 |
| LA | 16.6 | CO | 21.8 | ME | 29.0 | RI | 38.8 |
| NM | 17.6 | WV | 22.4 | NJ | 29.2 | CT | 39.4 |
| MS | 18.4 | AL | 22.8 | MI | 29.2 | IA | 41.2 |
| AR | 18.4 | TN | 23.0 | IN | 29.8 | HI | NA |
| OR | 18.6 | KS | 23.2 | IL | 31.0 |  |  |
| GA | 19.2 |  |  |  |  |  |  |

Note: Numbers are rounded to the nearest tenth.
level in rural school communities and percent rural student mobility, as well as a positive correlation ( $r=.41$ ) between rural diversity index and percent rural student mobility. In other words, states with more rural students changing residences were also more likely to have poorer rural school communities and more racial diversity.

We also investigated the relationship between our diversity indicators and the indicators in the other gauges. The strongest, by far, was the positive relationship between states with wealthier rural school communities and the percent of rural juniors and seniors passing at least one AP exam $(r=.76)$. AP exam pass rates also correlated relatively strongly with percent of rural school-aged children in poverty ( $r=-.42$ ) and percent rural student mobility $(r=-.43)$.

In other words, states with higher percentages of rural students passing AP exams tended to have less rural poverty and more rural mobility. Together, these correlations underscore the need to make AP coursework, and appropriate preparation, available to students who face barriers of poverty and geographic instability.

See page 64 for a map showing regional patterns.

## Educational Policy Context Gauge Educational Policy Context Gauge Indicators

 For this gauge, we used indicators that describe characteristics of the public schooling system that are the result of policy decisions. Moreover, we focused attention on policy decisions that are highlighted in educational research as influencing student achievement and other measures of student well-being. Illustrating variations in state policy contexts thus can be interpreted to suggest, in relative terms, the extent to which current policies are helping or hindering rural schools and students. In this section, we define each of the indicators in the Educational Policy Context gauge and summarize state and regional patterns observed in the data. Hawaii is excluded from this gauge because its organization as a statewide district makes analysis impossible. On each indicator, the higher the ranking (closer to 1), the greater the concern that the policy context is not optimal for rural education.- Rural instructional expenditures per pupil represents the state's total current expenditures for instruction in rural public school districts divided by the total number of students enrolled in those same districts. ${ }^{\mathrm{x}}$ The lower the rural per-pupil expenditures, the higher the state ranks on the Educational Policy Context gauge and the greater the concern about rural education policy.

This indicator allows us to make comparisons among states with regard to the amount of money spent per pupil on teaching and learning in rural schools. The national average of $\$ 6,367$ per rural
pupil is much closer to the low end of the range ( $\$ 4,118$ in Idaho and $\$ 4,737$ in Oklahoma) than to the high end ( $\$ 14,380$ in Alaska and $\$ 13,226$ in New York). ${ }^{\text {xi }}$ In addition to Idaho and Oklahoma, 31 other states spend less than half of the amount that Alaska spends per pupil for instruction in its rural school districts.

The highest spending states are either states with low-enrolled rural districts (Alaska, Wyoming, New Hampshire, and Nebraska), or Northeastern and Mid-Atlantic urban states with a relatively small absolute number of rural students (New York, Connecticut, New Jersey, Rhode Island, and Massachusetts).

There is a weak positive correlation between the instructional spending per pupil indicator and most of the indicators on the Educational Outcomes gauge (ranging from $r=.11$ to $r=.23$ )—all but the two indicators measuring improvement. It seems logical that states that spend more money on instruction demonstrate better educational outcomes. Less logical is the negative correlation between instructional spending and four of the five College Readiness indicators (ranging from $r=-.16$ to $r=-.03$ ). The lone exception is the correlation with the percent of rural juniors and seniors passing at least one AP exam ( $r=.43$ ). This might indicate the presence of funding that is already being directed to areas where students historically have been underprepared for college. Alaska is a prime example of this, having both the lowest rural graduation rate in the U.S. and the highest amount of instructional spending per pupil.

## - Ratio of instructional expenditures to transportation expenditures is a measure

 of how many dollars are spent on teaching and learning for every one dollar spent on transporting pupils. The lower the ratio, the more money that is being channeled toward transportation and away from teaching and learning, and the higher the ranking on this indicator.Variations in pupil transportation costs are affected by unavoidable issues related to geography and terrain, but they also result from policies and practices related to the size and location of schools and school districts, personnel, and the length of students' bus rides. This indicator is an important factor in the educational policy context because extraordinary transportation costs are a burden that shifts money away from programs and resources that directly impact student learning.

On average, rural school districts nationally spend about $\$ 10.81$ on instruction for every dollar spent on transportation, but there is considerable variation among states. At the high end, Alaska is an outlier, having the opportunity to spend $\$ 25.89$ on instruction for every dollar that must go towards transportation. ${ }^{\text {xi }}$ Texas also has a favorable situation, spending $\$ 19.28$ on instruction per transportation dollar. Most states have much steeper transportation costs; 17 states spend less than half this amount, with the hardest hit states showing no regional patterns: New Mexico (\$6.17), West Virginia (\$6.48), North Dakota (\$7.55), Indiana (\$7.91), and Louisiana (\$7.94). In fact, comparisons of states with similar geographies and terrains reveal substantial differences. South Dakota, for example, spends over $\$ 3$ more on instruction per transportation dollar than its neighbor North Dakota and Vermont spends almost twice as much on instruction per transportation dollar (\$15.54) as its neighbor New York (\$8.82).

- Median organization scale is a measure that is intended to capture the combined effects of school and district size. We computed the organizational scale for each rural school by multiplying the total school enrollment by the total district enrollment. For simplification in reporting, we then divided the result by 100 . The figure reported for each state is the median for the organizational scale figure for every rural school in the state. The larger the organizational scale, the higher the state
scores (the greater the level of concern) on the Educational Policy Context gauge.

School and district size exert influence over schooling and schooling outcomes both individually and in combination with one another. Specifically, larger school and district size has been linked with undesirable schooling outcomes-particularly among impoverished students and those with learning disabilities. ${ }^{\text {xii }}$ Further, larger districts exacerbate the negative influence of large school size and vice versa. By including this indicator, we are seeking to provide a relative measure of the scale of operations for rural education in each state.

Large organizational scale is concentrated in the Southeast and contiguous areas in the Mid-Atlantic and Central Appalachia where countywide districts and regional high schools are the norm (Maryland, North Carolina, Georgia, Florida, Virginia, Tennessee, Alabama, Delaware, South Carolina, Louisiana, Mississippi, West Virginia, and Kentucky). Every state in the top quartile on this indicator is located east of the Mississippi River. The lowest-ranking states are mostly in the Great Plains and the West, where the norm is small, independent districts serving distinct communities.

- Ratio of state revenue to local revenue in rural districts is a measure of dependence on local fiscal capacity and an indirect measure of the extent to which state revenue is a significant factor in equalizing revenue per pupil across communities of varying levels of wealth and poverty. A low ratio means a relatively small amount of state aid and an increased likelihood of inequitable funding. The lower the ratio, the higher the state scores on the indicator.

This indicator needs to be read with a great deal of caution because it does not take into account whether state or local revenue is adequate to support schools. A high ratio of state to local revenue may mean the funding system is equitable only in that it provides inadequate
funding levels everywhere. A low ratio is a clearer signal that the school funding system relies too much on local fiscal capacity and, whether minimally adequate or not, is very likely inequitable. These data relate only to the proportion of revenue from state versus local sources in the rural districts of a state. Including the non-rural districts would likely alter the numbers considerably, in part because the industrial and commercial property tax base per pupil is usually lower in rural areas. In addition, much of the agricultural or forest land values in rural areas are withheld from the school tax base or their revenue yields are reduced by various forms of abatements and preferential assessments.

The national average ratio of state to local revenue in rural school districts is 1.23 , meaning state government supplies $\$ 1.23$ in funding to rural districts for every $\$ 1.00$ allocated from local tax revenues. Nebraska has the lowest ratio with rural districts receiving only $\$ 0.27$ of state funding for every dollar of local revenue they receive. The next three lowest states are clustered in the Northeastern U.S.: Rhode Island (\$0.31), Connecticut (\$0.45), and New Hampshire ( $\$ 0.51$ ). The situation is drastically different for their geographic neighbor, Vermont, where rural districts receive $\$ 14.00$ from the state for every dollar raised locally-the highest ratio in the nation. ${ }^{\text {xiv }}$ This is almost three times the funding ratio of the next highest state, New Mexico (\$4.44). In the past three years since Why Rural Matters 2015-16 was released, 22 states have decreased in their ratio of state to local revenue; of these, Tennessee has seen the greatest decrease ( $\$ 1.68$, compared to $\$ 2.11$ in Why Rural Matters 2015-16).

The highest-ranking states on this indicator (specifically, the states with the lowest level of state aid relative to local revenue) mostly fall into two distinct groups: Northeastern states with relatively low levels of rural poverty and high levels of rural property valuation (Rhode Island, Connecticut, New Hampshire, New Jersey,

Massachusetts, and Maine); and Midwestern/ Great Plains states with low to moderate levels of rural poverty and a largely agricultural property tax base in rural areas (Nebraska, South Dakota, Illinois, and Wisconsin). The first group includes many states that spend relatively high levels per pupil in their rural schools. All are among the highest-spending quartile for the rural instructional expenditure per pupil indicator. The second group spends, on average, $\$ 3,500$ less per pupil in their rural schools (about $\$ 6,800$ compared to around $\$ 10,300$ for the first group). Texas is a geographic exception but is similar to the second group in its lower instructional spending per pupil $(\$ 5,386)$.

## - Adjusted salary expenditures per instructional

FTE is used here as a proxy for average teacher salaries. For each rural district, the total dollar amount spent on instructional salaries is multiplied by the NCES's Comparable Wage Index for Teachers ${ }^{\mathrm{kv}}$ for that district, and then divided by the total number of instructional staff members. The lower the adjusted rural salary expenditure per FTE (or full-time equivalent, a measure that accounts for staff who only work part-time or who are assigned to more than one school), the higher the state's ranking on the Educational Policy Context gauge and the more urgent the concern for the condition of rural education.

In most states, rural school districts are simply at a competitive disadvantage in the market for teachers. ${ }^{\text {xvi }}$ There are many factors in this challenge, but lower teacher salaries is certainly among them. For this edition of Why Rural Matters, we adjusted teacher salaries based on the Comparable Wage Index For Teachers (CWIFT), created by the NCES. xvii This index helps adjust for geographic variations in teacher salaries by looking at Census data on salaries for other occupations in each district. For example, take Vashon Island, a school district in rural Washington. Although the average teacher salary in the district is $\$ 70,643$, non-teacher
occupations in that district earn $14.7 \%$ more than their peers in the same non-teacher occupations nationwide, yielding an adjusted teacher salary of $\$ 61,590$ after accounting for this premium. Meanwhile, teachers in Pellston Public Schools in rural Michigan earn an average of $\$ 55,008$, but after adjusting for the $14.9 \%$ wage discount seen in other occupations, teachers earn the equivalent of $\$ 64,639-\$ 3,000$ more than the adjusted amount of the Vashon Island teachers. There are limitations to this methodology (e.g., challenges with modeling for communities with the attraction of a low cost of living but other disamenities that make it difficult to attract teachers), but it does help compare the rural districts across the U.S. from a more equivalent perspective.

Adjusted salary expenditure per instructional FTE in rural districts ranges from \$54,454 in Kansas to $\$ 102,736$ in Alaska, with a national average in rural districts of $\$ 69,797$. Compare this to the average salary expenditure per instructional FTE in town districts $(\$ 72,165)$, urban districts ( $\$ 73,357$ ), and suburban districts $(\$ 74,153)$. Although we have reported these disparities before, the fact that they remain present even after adjusting for geographic variation in wages is especially noteworthy-and speaks to the need for action by policymakers.

States with the lowest adjusted rural salary expenditures according to this indicator are primarily in the Southeast, the Southwest, and the Midwest/Great Plains (in order from lowest salary: Kansas, Arkansas, Oklahoma, Florida, Missouri, Mississippi, North Dakota, South Dakota, Colorado, Arizona, Tennessee, and Illinois). States with the highest adjusted rural salary expenditures are located primarily in the Northeast, the West, and the Mid-Atlantic (in ascending order from lowest salary in the group: New Jersey, New Hampshire, Delaware, California, Pennsylvania, Nevada, Massachusetts, Wyoming, Connecticut, Rhode Island, New York, and Alaska).

The indicators that correlate most strongly with adjusted salary expenditures per instructional FTE are rural diversity index $(r=.39)$ and rural NAEP poverty disadvantage ( $r=-.39$ ). Although these are still only moderately strong correlations, they suggest that states with greater racial diversity and a narrower poverty gap among rural districts, on average, tend to provide higher salaries for their rural teachers.

## Educational Policy Context Gauge Rankings

To gauge the extent to which the educational policy context is favorable or unfavorable for rural schools, we averaged each state's ranking on the individual indicators, giving equal weight to each (see Table 4).

The indicators that contribute most to the crucial ranking of the states in the top quartile for this gauge are median organizational scale (eight of 13 are in the top quartile on this indicator); rural instructional expenditures per pupil (six of 13); and ratio of instructional to transportation expenditure (five of 13). The 13 Crucial states vary most in their ranking on the ratio of instructional to transportation expenditures indicator, ranging from number two West Virginia to number 43 Tennessee, with an average ranking of 18 . Only two states in the top quartile for the gauge (Missouri and Illinois) rank within the most crucial quartile on the indicator state dollars per local dollars. These are states where school funding systems depend relatively more on local tax bases than state revenue.

| How crucial is it for policymakers to address the policy context of their state as it relates to the specific needs of schools serving rural communities? These rankings represent the average of each state's score on five indicators. The higher the average ranking (i.e., the closer to ranking number 1 ), the more important it is for policymakers to address rural educational issues within that state. |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Crucial |  | ry <br> tant | Imp | tant | No | ble |
| FL 11.6 | TX | 20.8 | WI | 24.5 | MI | 28.8 |
| AZ 15.2 | SD | 21.0 | ND | 24.8 | NY | 29.0 |
| VA 16.0 | GA | 21.0 | NC | 24.8 | MN | 30.4 |
| MS 16.2 | AR | 21.4 | OR | 25.0 | KS | 30.8 |
| LA 16.2 | ID | 21.4 | NV | 25.0 | DE | 30.8 |
| IN 17.0 | KY | 21.4 | RI | 25.4 | MT | 31.5 |
| OH 17.3 | MD | 21.6 | MA | 26.0 | WA | 31.6 |
| AL 17.4 | PA | 22.6 | NJ | 26.2 | CA | 32.0 |
| IL 18.6 | ME | 22.8 | NM | 27.4 | NE | 33.5 |
| MO 19.0 | OK | 23.4 | IA | 28.0 | WY | 34.4 |
| WV 19.8 | CO | 23.6 | NH | 28.2 | VT | 41.4 |
| TN 20.0 |  | 24.0 |  | 28.2 | AK |  |
| SC 20.4 |  |  |  |  |  |  |

Note: Numbers are rounded to the nearest tenth.

At the bottom of this gauge are four Great Plains states (Wyoming, Nebraska, Kansas, and Montana); two Midwestern states (Minnesota and Michigan); two Northeastern states (Vermont and New York); two Western states (Washington and California); and Delaware and Alaska. In general, these are states with relatively small schools and districts, and stronger investments in public education overall.

See page 65 for a map showing regional patterns.

## Educational Outcomes Gauge Educational Outcomes Gauge Indicators

 This gauge includes indicators describing student academic performance on national assessments. In this section, we define the indicators in the Educational Outcomes gauge and summarize state and regional patterns observed in the data. In past reports, we ranked states' scores on each of the tests. Due to high levels of correlation between the various tests, we decided to adjust our approach to look at several complementary perspectives on performance on theNational Assessment of Educational Progress (NAEP). NAEP is administered and compiled by the U.S. Department of Education and offers assessment data for state-by-state comparisons, including comparisons of rural school districts as a sub-group within states. The lower the average score on each of these five indicators, the higher the ranking (the greater the concern) on the Educational Outcomes gauge.

The results from the two NAEP improvement indicators are similar enough that we discuss them here together.

## - Rural NAEP improvement (Grade 4 to Grade 8 math/reading). Standardized scores

 ( $z$-scores) based on the national mean and standard deviation were calculated for the rural students of each state on the Grade 4 math (reading) test and on the Grade 8 math (reading) test. The difference of the two $z$-scores was then used as a measure of standardized improvement in math (reading).In past reports, we have ranked states by their absolute performance on the NAEP in various grade levels and subject areas. Although this is valuable information (and we continue to include it as a composite indicator), it is also helpful to analyze differences between $4^{\text {th }}$ grade performance and $8^{\text {th }}$ grade performance within a state. In theory, changes in relative performance between $4^{\text {th }}$ and $8^{\text {th }}$ grade provide a rough estimate of how a state's middle grades are functioning relative to those of other states. However, substantial caution must be exercised. The reader should remember that the students taking these $4^{\text {th }}$ grade assessments are not the same students as the ones taking the $8^{\text {th }}$ grade assessments (i.e., this is not longitudinal data). The schools chosen for the NAEP are not necessarily representative of all schools in the state, nor does a particular class of $4^{\text {th }}$ (or $8^{\text {th }}$ ) grade students necessarily represent the performance of other classes of students while in $4^{\text {th }}\left(\right.$ or $\left.8^{\text {th }}\right)$ grade from that same school. ${ }^{\text {xvii }}$

Four states (Alabama, Louisiana, Mississippi, and West Virginia) ranked in the most critical quartile on both absolute NAEP performance and the two NAEP improvement indicators. The $4^{\text {th }}$ grade rural students in these states scored relatively poorly on the NAEP tests, and the $8^{\text {th }}$ grade rural students performed even worse relative to their $8^{\text {th }}$ grade rural peers in other states. This drop in relative scores is also seen in some of the states that performed well overall on the NAEP. For example, Connecticut, New Jersey, and Indiana all scored among the top quartile on overall NAEP performance, but were also in the most urgent quartile due to their relative lack of math improvement from $4^{\text {th }}$ to $8^{\text {th }}$ grade (and had similar results in reading).

Several states performed well overall and showed strong improvement on the NAEP assessments. Of states ranking within the highest-scoring quartile on overall NAEP performance, New Hampshire, Ohio, and Rhode Island were in the most improved quartile for math, and Utah, Maryland, and Pennsylvania were in the most improved quartile for reading.

The two indicators that best predicted math and reading improvement were those related to school size. States with a greater percent of small rural school districts tended to improve at higher rates than their peers on both math ( $r=.26$ ) and reading ( $r=.21$ ) assessments. Similarly, states with a larger median organizational scale (i.e., more populated schools and districts) tended to improve less than their peers on both math ( $r=-.34$ ) and reading ( $r=-.30$ ) assessments. Though modest, these findings are consistent with other studies that have shown the benefits of smaller classrooms, schools, and districts. Small correlations were also seen with percent of rural school-aged children in poverty ( $r=-0.10$ for math improvement; $r=-0.23$ for reading improvement) and with adjusted salaries expenditures per instructional FTE
( $r=0.12$ for math improvement; $r=0.23$ for reading improvement).

- Overall rural NAEP performance (Grades 4 and 8, math and reading). Standardized scores ( $z$-scores) based on the national mean and standard deviation were calculated for the rural students in each state on the Grade 4 math test, the Grade 8 math test, the Grade 4 reading test, the Grade 8 reading test. The average of the four $z$-scores was then used as a measure of overall NAEP performance.

This indicator is essentially the combination of the entire Educational Outcomes gauge of previous reports. Unlike the first two indicators on the gauge, which measure relative change, this indicator measures the absolute performance of the state's rural students on the four tests. Moreover, whereas the improvement indicators showed no clear regional trends among the urgent states, overall performance closely matched the regional trends of rural poverty (compare the maps of our two poverty indicators with the map of overall NAEP performance). Nine of the states in the top quartile on this indicator scored in the poorest quartile of the poverty level in rural school communities indicator (New Mexico, Nevada, South Carolina, Arizona, Louisiana, Arkansas, Mississippi, West Virginia, and Alabama), and eight of these (all but Nevada) scored in the poorest quartile of percent of rural school-aged children in poverty. The heavy overlap of the most urgent quartiles on poverty and NAEP performance suggests a positive correlation between inadequate funding and poor academic performance.

## - Rural NAEP poverty disadvantage.

Standardized scores ( $z$-scores) based on the national mean and standard deviation were calculated and averaged for the rural students in poverty on the four NAEP assessments.
A similar average of standardized scores was calculated for the remainder of the rural students. The latter average was then subtracted from the former to create a measure of the
academic poverty gap among the rural students of each state.

The academic performance gap between students in poverty and their peers has been well documented in the education research literature. ${ }^{\text {xix }}$ This gap is present in rural areas as well, but is narrower in some states than in others. The average rural poverty gap nationwide is -0.559 , meaning that rural students in poverty, on average, score just over half of a standard deviation below their rural peers who are not in poverty on the NAEP assessments. While this gap is as broad as -0.765 in rural Maryland and as narrow as -0.367 in rural Pennsylvania, the fact that it occurs in every state reminds us of the inequities within the public education system and calls upon policymakers and others to redouble efforts to ensure that all children are provided with a high quality education. Recent research suggests that direct financial investment in lowincome districts can have positive short-term and long-term impact on their level of educational success. ${ }^{\mathrm{xx}}$ The states with the smallest rural poverty gap (starting with the smallest gap) were Pennsylvania, Arkansas, Montana, Oklahoma, Hawaii, New York, Minnesota, and Delaware. States with the largest rural poverty gap (starting with the largest gap) were Maryland, Mississippi, Washington, New Mexico, South Dakota, Utah, South Carolina, and Georgia.

Clear geographic trends are not immediately obvious on this indicator. States with a greater percent of rural school-aged children in poverty were not necessarily more likely to have a larger poverty gap. In fact, the correlation between percent of rural school-aged children in poverty and a smaller poverty gap was $r=0.13$.

## - Rural advantage for NAEP performance.

Standardized scores ( $z$-scores) based on the national mean and standard deviation were calculated and averaged for the rural students on the four NAEP assessments. A similar average of standardized scores was calculated for the non-rural students in the state. The
latter average was then subtracted from the former to create a measure of the rural advantage (or disadvantage, if negative) for that state.

Nationwide, rural students outscore non-rural students on the core NAEP assessments by a narrow margin of 0.018 standard deviations. In a majority of the states for which we have NAEP data ( 28 of the 48 states, or $58 \%$ ), rural students outscored their non-rural peers. For this reason, we refer to this indicator as a rural advantage. By using the term "advantage," we are merely referring to the difference between the average score of rural students and the average score of their peers. We are not implying a particular privilege experienced by rural students in that state, although the research literature does describe several educational strengths that tend to be characteristic of rural communities. ${ }^{\text {xxi }}$

In some states, such as Rhode Island (0.383), Connecticut (0.284), and New Jersey (0.258), the rural advantage was quite large. In other states, the non-rural students outperformed the rural students, although in no state did this occur as much as it did in Hawaii. The rural disadvantage in Hawaii (-0.329) was more than twice as large as the rural disadvantage in any other state except for South Carolina ( -0.188 ). However, even Hawaii's rural disadvantage was less than the weakest poverty disadvantage (Pennsylvania, -0.367).

## Educational Outcomes Gauge Rankings

To gauge the educational outcomes associated with rural schools in each state, we averaged each state's ranking on the five indicators, giving equal weight to each (see Table 5).

Of the states falling into our two highest-priority quartiles (Urgent and Critical) on this gauge, 16 are clustered together in a solid geographic block. Starting in the west with New Mexico, this block extends east across Oklahoma, Missouri, Kentucky, West Virginia, Virginia, and includes every state southeast of this line. Fourteen states
in this block (all except Texas and Virginia) also rank within the two highest-priority quartiles on the Student and Family Diversity gauge. States whose rural areas contain the most socioeconomic, geographic, racial, and learning diversity are the states that have the most need for effective education policies and practices.

Which indicators contribute most to the ranking of the highest-priority quartile on Educational Outcomes? Because the two improvement indicators are closely linked, they essentially have twice the strength and so it is no surprise that eight of the top-quartile states also rank in the top quartile on these indicators. Perhaps more surprising is the gauge's close link with rural NAEP poverty disadvantage (seven states) and rural advantage for NAEP performance (seven states).

Over the past three reports, the same 12 states consistently appeared in the top-priority quartile of our Educational Outcomes gauge, mostly because it was dominated by absolute NAEP performance. ${ }^{\text {xxi }}$ Our goal in adding several new perspectives into our Educational Outcomes gauge was to highlight specific ways in which states have room for improvement, even if their overall NAEP averages are reasonably high. If we accomplished this goal, we would expect to see new states appearing in the top quartile on this gauge. The final indicator, overall rural NAEP performance (Grades 4 and 8, math and reading), provided a concise picture of the overall NAEP averages we focused on in previous reports. This indicator shared only six states in common with the gauge in the top quartile (Alabama, Mississippi, Louisiana, South Carolina, West Virginia, and New Mexico). These same six states are among the 12 that appeared consistently in the top-priority quartile in previous reports. The other seven top-priority states appear in the quartile for the first time in at least a decade. The new indicators highlight areas of concern related to relative lack of math improvement in the middle grades (Florida, Virginia, Texas, and Idaho), reading improvement (Florida, North

## Table 5. Educational Outcomes Gauge Rankings

Given the educational outcomes in each state, how urgent is it that policymakers take steps to address the specific needs of schools serving rural communities?
These rankings represent the average of each state's score on five indicators. The higher the average ranking (i.e., the closer to ranking number 1 ), the more important it is for policymakers to address rural educational issues within that state.

| Urgent |  | Critical |  | Serious | Fair |  |  |
| :--- | ---: | :--- | :--- | :--- | :--- | :--- | :--- |
| AL | 5.6 | AR | 19.0 | NE | 24.8 | AZ | 30.5 |
| MS | 11.6 | OR | 19.0 | IN | 25.0 | MD | 30.6 |
| NC | 12.8 | GA | 20.6 | WY | 25.4 | WI | 30.6 |
| VA | 14.0 | MI | 21.8 | DE | 25.6 | KS | 30.8 |
| LA | 14.2 | OK | 22.6 | ME | 25.6 | IL | 33.0 |
| SC | 15.0 | ND | 22.8 | WA | 26.0 | OH | 34.2 |
| FL | 15.6 | NY | 23.2 | UT | 27.4 | NH | 34.6 |
| WV | 15.6 | MO | 23.6 | IA | 27.4 | MT | 35.2 |
| TX | 16.2 | HI | 23.6 | NV | 27.5 | MA | 35.8 |
| NM | 16.4 | TN | 24.0 | NJ | 28.3 | RI | 38.3 |
| ID | 16.8 | MN | 24.0 | CT | 28.5 | PA | 39.6 |
| KY | 18.6 | CA | 24.3 | CO | 29.4 | AK | NA |
| SD | 18.8 |  |  |  |  | VT | NA |
|  |  |  |  |  |  |  |  |

Note: Numbers are rounded to the nearest tenth.

Carolina, Virginia, and Kentucky), the rural poverty gap (South Dakota, Idaho, and Texas), and the rural-non-rural gap (South Dakota, North Carolina, Idaho, and Virginia). More broadly, 34 of the 48 states for which data were available ranked in the highest-priority quartile on at least one of the Educational Outcomes indicators.

See page 66 for a map showing regional patterns.

## College Readiness Gauge College Readiness Gauge Indicators

This gauge includes indicators related to how well high schools in rural districts are preparing students for college entrance and success. In this section, we define the indicators in the College

Readiness gauge and summarize state and regional patterns observed in the data.

## - Estimated graduation rate in rural districts.

Rural high school graduation rate is measured using the Regulatory Four-Year Adjusted Cohort Graduation Rates (ACGR). The lower the rural graduation rate, the higher the state ranks on the College Readiness gauge and the more serious the concern for the policy environment.

The ACGR is defined by the U.S. Department of Education as "the number of students who graduate in four years with a regular high school diploma divided by the number of students who form the adjusted cohort for the graduating class." This measure adjusts for students who transfer in and out of a district. All school districts are now required to report data in a way so that the ACGR can be calculated. However, in order to protect the confidentiality of students at small schools, some graduation rates are reported as ranges instead of a single value. We used single values where available and used statistical techniques ${ }^{\text {xiii }}$ where only a range was reported in order to estimate the graduation rates for every state except Utah, Wyoming, and Hawaii. Data were not available for these states.

On average nationwide, the estimated rural high school graduation rate is $88.7 \%$. Although this is four percentage points above the published national average for all locales, it is not unreasonable, because the rural graduation rate has traditionally been on par with the suburban graduation rate and well above the graduation rate for urban school districts. Rural Alaska is a statistical outlier with a graduation rate of $72.3 \%$. Rural graduation rates in other states range from 76.4\% (New Mexico) to 94.2\% (Connecticut). Among the states in the most urgent quartile for graduation rate, only South Dakota and Mississippi rank in the top quartile on the Importance gauge, but seven rank in the top quartile on the Student Diversity gauge (Arizona, Florida, Mississippi, Nevada,

New Mexico, Oregon, and South Carolina). States with the highest rural graduation rates are primarily those whose rural students score well on the NAEP tests. However, because this report's Educational Outcomes Gauge included measures of improvement and equity in addition to absolute performance, only three of the states in the highest quartile for graduation rate are also in the highest-scoring quartile on the Educational Outcomes gauge.

- Percent rural juniors and seniors in dual
enrollment (males/females) represents the total number of male (female) students from rural districts who were enrolled in at least one dual enrollment course, divided by the total number of male (female) juniors and seniors in rural districts. ${ }^{\text {xxiv }}$ A higher rate of rural students in dual enrollment suggests a higher level of preparedness for college. The lower the state's percentage, the higher the state scores on the indicator.

The results from the two dual enrollment indicators are similar enough that we discuss them here together. Although the correlation between the two is high ( $r=.96$ ), the percent of rural female juniors and seniors taking dual enrollment coursework was consistently higher than the percent of males (20.1\% for males, compared to $26.1 \%$ for females). The only state in which males took dual enrollment coursework at a noticeably higher rate than females was Utah ( $42.4 \%$ of males and $37.5 \%$ of females). Compare this to the four states where females took dual enrollment coursework at a much higher rate than males: South Dakota (19.4\% males, 30.0\% females), Kentucky ( $18.5 \%$ males, $30.1 \%$ females), Delaware ( $17.4 \%$ males, $29.4 \%$ females), and Missouri ( $25.0 \%$ males, $38.7 \%$ females).

Dual enrollment is clearly more prevalent in certain states than in others as a college preparation route. According to our data, none of the rural students in Rhode Island were taking a dual enrollment course, whereas half of Idaho's rural juniors and seniors were. In four states
other than Rhode Island, fewer than $10 \%$ of the rural juniors and seniors were taking a dual enrollment course: Massachusetts, California, New Hampshire, and Nevada. In contrast, three states other than Idaho were taking dual enrollment coursework at over four times that rate (over 40\%): Iowa, Indiana, and Kansas.

Of the 23 other indicators in our report, the one that most strongly predicted a state's participation rates for dual enrollment was rural NAEP poverty disadvantage ( $r=-.42$ for males, $r=-.35$ for females). The narrower a state's rural poverty gap, the lower the percentage of students taking dual enrollment tended to be.

> - Percent of rural juniors and seniors passing at least one AP exam represents the total number of students from rural districts who had scored at least a 3 on at least one Advanced Placement (AP) course, divided by the total number of juniors and seniors in rural districts. ${ }^{x v v}$ A higher rate of rural students passing AP exams suggests a higher level of preparedness for college. The lower the state's percentage, the higher the state scores on the indicator.

The AP syllabus provides a de facto curriculum standard designed to be at the college level. Research has found that exposure to this material while in high school is associated with a higher first-year GPA in college. ${ }^{\text {xxvi }}$ Moreover, students who are able to pass an AP exam enter college with some existing credit, thus shortening their time to graduation. As with dual enrollment, states varied widely in the percent of rural juniors and seniors passing an AP exam. In six states, passing an AP exam was so rare that no more than one in 40 rural juniors and seniors accomplished the challenge: North Dakota (0.6\%), Nebraska (1.0\%), Nevada (1.1\%), Kansas (1.3\%), Louisiana (2.2\%), and Missouri (2.5\%). Twelve of the 13 states in the lowest quartile for receiving AP credit are located west of the Mississippi River-only Mississippi (3.8\%) is located to the east. Passing an AP exam is much more common among rural students in
the Northeast, with more than one in five rural students earning AP credit in Connecticut (32.5\%), Massachusetts (24.0\%), Maryland (22.9\%), and New Jersey (22.4\%).

Many states that ranked well on AP exam success ranked poorly on the dual enrollment indicators, suggesting that schools may tend to promote one over the other. Of the states in the quartile with high percentages of students passing an AP exam, six were also in the quartile with the lowest percentage of students in dual enrollment: Massachusetts, Florida (males only), New Hampshire, Maine, Rhode Island, and Georgia. Only New York was in the highest-percentage quartile for all three college credit indicators. Two states (Nevada and Oklahoma) were in the lowest-percentage quartile for all three college credit indicators.

We were curious as to which of our other indicators would best predict a state's preference between dual enrollment and AP credit. The strongest predictor, by far, was poverty level in rural school communities ( $r=.76$ ) - the wealthier the rural school communities within a state, the greater the percentage of rural students passing AP exams. In contrast, the wealth of rural school communities was negatively correlated with dual enrollment ( $r=-.16$ for males, $r=-.22$ for females). These findings are consistent with research that has raised questions about equitable access to AP coursework and preparation. Access to both dual enrollment and AP coursework should continue to be at the forefront of rural school discussions about college readiness.

- Percent of rural juniors and seniors who took the ACT or SAT represents the total number of students from rural districts who took either the ACT or the SAT in the previous year, divided by the total number of juniors and seniors in rural districts. xxvii A higher rate of rural students taking ACT or SAT could suggest a higher level of preparedness for college. The lower the state's percentage, the higher the state scores on the indicator.

The ACT and the SAT are the two most commonly used tests across the U.S. for admissions into college, and particularly 4 -year colleges. ${ }^{\text {xxvii }}$ Historically, students in the Coastal states and Texas have tended to prefer the SAT and students in the Midwest and Great Plains states have been more likely to take the ACT, although this geographic division grows weaker every year. Some districts, and the entire state of Kentucky, require all students to take one of these two tests. Because it is still voluntary in most places, however, it serves as a marker of the portion of a state's rural students who have interest in attending a 4 -year college. ${ }^{x x i x}$ In 22 states, over half of the rural upperclassmen took the ACT or SAT in the previous year, and in only four states (Washington, Oregon, California, and Arizona) did fewer than one in four rural upperclassmen take one of the two tests. Incidentally, the correlation between ACT/SAT test-taking rates and AP course-passing rates is extremely weak ( $r=.00$ ), and the correlation between ACT/SAT test-taking rates and the percent of rural males who took dual enrollment courses is negative ( $r=-.03$ ), suggesting that these indicators are measuring different aspects of college readiness.

## College Readiness Gauge Rankings

To gauge the college readiness of the students attending rural districts in each state, we averaged each state's ranking on the five indicators, giving equal weight to each (see Table 6).

Based on the five indicators used in this gauge, the majority of states where rural students appear to be least prepared for college are not clustered geographically. Aside from the cluster of California, Nevada, and Arizona, none of the highest-priority states on this gauge even border each other. On each of the other four gauges, there is a contiguous group of at least six highpriority states. This may be due to the nature of college preparation strategies that vary widely from state to state rather than following regional patterns.

The link between the College Readiness gauge and the Educational Outcomes gauge is not particularly strong (three of the states that score in the least-prepared quartile of the College Readiness gauge also show up in the lowestscoring quartile of the Educational Outcomes gauge). In other words, the two gauges appear to be measuring different components of the educational system. The College Readiness gauge is much more closely linked with the Student and Family Diversity gauge. Six states appear in the highest-priority quartile of both gauges (Nevada, Georgia, Arizona, Oklahoma, Mississippi, and North Carolina).

See page 67 for a map showing regional patterns.

| Table 6. College Readiness Gauge Rankings |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Given the levels of college readiness among rural students in each state, how urgent is it that policymakers take steps to address the specific needs of schools serving rural communities? These rankings represent the average of each state's score on five indicators. The higher the average ranking (i.e., the closer to ranking number 1), the more important it is for policymakers to address rural educational issues within that state. |  |  |  |  |  |  |
| Urgent | Cr | cal | Se | Us |  |  |
| NV 10.2 | OR | 19.8 | NM | 25.0 | DE | 31.2 |
| WA 12.0 | AL | 20.0 | NH | 25.4 | TN | 31.4 |
| CA 13.8 | ME | 20.0 | IL | 25.8 | OH | 32.8 |
| AK 14.8 | SD | 20.0 | NE | 27.0 | WY | 33.0 |
| RI 16.4 | ND | 20.0 | MD | 27.6 | MO | 33.4 |
| WV 17.4 | SC | 21.6 | KS | 28.2 | ID | 34.8 |
| GA 17.6 | MN | 21.6 | TX | 29.0 | IN | 35.2 |
| AZ 17.6 | PA | 21.6 | VA | 29.0 | KY | 35.6 |
| $\begin{array}{ll}\text { MI } & 17.8\end{array}$ | LA | 22.2 | AR | 29.8 | UT | 36.3 |
| OK 18.4 | MA | 22.2 | IA | 30.0 | WI | 36.4 |
| MT 18.4 | FL | 22.6 | NY | 30.4 | NJ | 36.8 |
| MS 18.8 |  | 24.2 |  |  | CT | 38.4 |
| NC 19.2 |  |  |  |  |  | NA |

Note: Numbers are rounded to the nearest tenth.

## Rural Education Priority Gauge

Finally, we averaged the cumulative rankings on the five gauges (Importance, Student and Family Diversity, Educational Policy Context, Educational Outcomes, and College Readiness) to create priority rankings that reflect the overall status of rural education in each state. The rankings for the Rural Education Priority gauge are presented in Table 7.

Although almost half ( 12 out of 25) of the indicators in Why Rural Matters 2018-19 have been substantially changed from or were not included in previous Why Rural Matters reports, most of the same states continue to appear in the highest priority ("Leading") quartile. In fact, of the 13 states ranked in the Leading quartile for this report, only three (Louisiana, Arkansas, and Kentucky) did not appear in the Leading quartile in Why Rural Matters 2015-16 and only one (South Dakota) was not ranked in the toppriority quartile in Why Rural Matters 2013-14.

Kentucky and Texas both climbed more than 10 places in priority ranking from the previous report to this one. In the other direction, Nevada and Utah saw the biggest drops in priority. We reiterate, however, that this report is not designed to be a scoreboard where an increase in priority means that something bad must have happened in the rural areas of that state over the past several years (and vice versa). It simply means that the rural areas of that state have more pressing concerns relevant to the indicators measured in this current report.

Nine of the 12 states in the Leading quartile of overall rural education priority are located in a continuous region located mostly in the Southeast; this block is bordered by five other states that all fall into the second-highest ("Major") priority quartile. Such a clearly demarcated geographical block of high priority states suggests regional challenges that transcend state lines. These challenges may be very different than those facing South Dakota (Leading) and North Dakota (Major).

## Table 7. Rural Education Priority Gauge Rankings

Rankings here represent the combined average ranking for each state on the five gauges (Importance, Student and Family Diversity, Educational Policy Context, Educational Outcomes, and College Readiness). The higher the average ranking (i.e., the closer to ranking number 1), the greater the need for policymakers to address rural education issues within that state.

| Leading | Major |  | Significant | Notable |  |  |  |
| :--- | ---: | :--- | ---: | :--- | :--- | :--- | :--- |
| MS | 7.0 | VA | 19.0 | WA | 25.6 | NY | 31.6 |
| AL | 11.6 | ME | 20.0 | CA | 26.2 | NH | 32.2 |
| NC | 11.6 | AK | 20.3 | MT | 26.4 | IA | 32.4 |
| OK | 12.2 | OR | 20.8 | IN | 27.0 | UT | 34.2 |
| SD | 12.4 | MO | 21.4 | MN | 28.6 | WY | 34.6 |
| WV | 13.0 | TX | 21.4 | CO | 29.0 | MD | 35.2 |
| GA | 14.2 | ID | 21.8 | VT | 29.3 | RI | 35.8 |
| SC | 14.8 | ND | 22.2 | IL | 30.2 | WI | 35.8 |
| LA | 15.0 | NM | 22.2 | OH | 30.2 | DE | 36.0 |
| FL | 16.2 | NV | 22.4 | KS | 31.0 | MA | 37.4 |
| AZ | 17.8 | TN | 22.6 | NE | 31.2 | NJ | 38.6 |
| AR | 18.4 | MI | 25.2 | PA | 31.2 | CT | 42.0 |
| KY | 18.4 |  |  |  |  | HI | NA |
|  |  |  |  |  |  |  |  |

Note: Numbers are rounded to the nearest tenth.
Mississippi is the only of the highest-ranking states on the Rural Education Priority gauge that ranks in the top quartile on all five underlying gauges. One of the highest-ranking states (North Carolina) ranks in the top quartile on four of the five underlying gauges. Eight (Alabama, Oklahoma, West Virginia, South Carolina, Louisiana, Florida, Arizona, and Kentucky) rank in the top quartile on three gauges. Two (South Dakota and Georgia) rank in the top quartile on two gauges, and the remaining high-priority state (Arkansas) ranks in the top quartile on only one gauge. Rankings on the Student and Family Diversity gauge most closely parallel the rankings on the Rural Education Priority gauge, with 10 of the states (all but West Virginia, Alabama, and South Dakota) in the Leading quartile on the Rural Education Priority gauge also placing in the top quartile on the Student and Family

Diversity gauge. Nine of the Leading quartile states on the Rural Education Priority gauge placed in the top quartile on the Educational Outcomes gauge; seven placed in the top quartile on the Educational Policy Context gauge; six on the College Readiness gauge and six also on the Educational Policy Context gauge.

In the Notable (bottom) quartile on the Rural Education Policy Priority gauge, no state ranked in the bottom quartile on all five (or even four) of the underlying gauges, and 36 of the states were in the highest-priority quartile on at least one of the gauges. This underscores the point that every state has rural education issues that need to be addressed. Here, too, the Student and Family Diversity gauge most closely parallels rankings on the Rural Education Priority gauge. Seven states ranking in the Notable quartile on the Rural Education Priority gauge also ranked in the bottom quartile on the Student and Family Diversity gauge. The message here is unmistakable: states that have the greatest need for attention from policymakers-based upon the five gauges as a whole, which represent both demographic givens and contexts created and maintained through policy decisions-serve a substantially more diverse student population than lower priority states. Clearly, these states (and others) must look closely at issues related to diversity and must find ways to better meet the needs of a diverse rural student population.

As in past reports, there were a few cases where states ranked very high or very low on one gauge but consistently the opposite on other gauges. Two examples: Florida ranked $44^{\text {th }}$ on Importance but $5^{\text {th }}$ on Student and Family Diversity, $1^{\text {st }}$ on Educational Policy Context, and $7^{\text {th }}$ on Educational Outcomes. Rhode Island, on the other hand, ranked $5^{\text {th }}$ on the College Readiness gauge but $47^{\text {th }}$ on Student and Family Diversity, $47^{\text {th }}$ on Educational Outcomes, and $49^{\text {th }}$ on Importance. So in Florida, rural students represent only a small proportion of the total public school enrollment
in what is the nation's $3^{\text {rd }}$-most populous state, but they have high needs, attend schools hampered by an unfavorable policy context, and perform poorly on outcome measures. In Rhode Island, rural students represent an even smaller proportion of the state's total public school enrollment, have low needs and high performance on outcome measures, but rate poorly on measures of college readiness.

## Conclusions and Implications

Over 7 million students are enrolled in rural school districts, just over 15 percent of all public school students in the United States. Nearly one sixth of those rural students live below the poverty line, one in seven qualifies for special education services, and one in nine has changed residence in the previous 12 months.

The results published in this report should make it increasingly difficult for policymakers to ignore the challenges faced by rural schools and the students they serve, or what those challenges mean to state and national goals of improving achievement and narrowing achievement gaps between advantaged and disadvantaged groups.

Still, the invisibility of rural education persists in many states. Many rural students are largely invisible to state policymakers because they live
in states where education policy is dominated by highly visible urban problems. In 17 states, at least one-fourth of all public school students are enrolled in rural school districts. On the other hand, more than half of all rural students live in just 11 states. Four states (Alabama, Tennessee, Georgia, and North Carolina) are in both of these categories (i.e., in a state with large proportional and absolute rural student enrollments). The majority of rural students attend school in a state where they constitute less than $25 \%$ of the public school enrollment, and more than one in four are in states where they constitute less than $15 \%$.

## The Bottom Line

Rural schools and communities continue to face substantial challenges with high rates of poverty, diversity, and students with special needs. As job markets shift, local districts must reevaluate what it means to prepare students for postsecondary opportunities. These challenges, while widespread, are most intense in the Southeast, Southwest, and parts of Appalachia. Moreover, they are trends that have proven consistent throughout the report series and irrespective of changes in the specific indicators used. At the same time, the new set of indicators used in this report highlight specific ways in which every state has room to improve the quality of education for its rural students.

# Rural Early Childhood Development and Education: Issues and Opportunities 

Although the political climate in the United States is far from harmonious, the need for increased access to high-quality early and elementary learning opportunities is one issue that frequently elicits bipartisan support. Stakeholders from all areas agree that highquality early childhood education is essential in helping children successfully navigate the American education system. With bipartisan support, early childhood education and early care initiatives are receiving heightened attention in national education agendas. Research about the importance of early childhood education continues to emerge, creating a national mandate in support of increased funding for early intervention services and programs. However, despite these positive changes, rural children continue to be underrepresented in both the national conversation and in current research about early childhood education. Child care deserts, access to health care, and increasing rates of adverse childhood experiences continue to impact rural children in disproportionate numbers. Rural young children have less access to educational opportunities than young children in other locales, and rural schools continue to experience challenges in recruiting and retaining highly qualified teachers, particularly in the areas of special education, specialized instruction, and in birth-to-age- 5 settings. Pay disparity for rural teachers, geographic and professional isolation, and lack of access to professional development opportunities are all obstacles to quality education in rural schools. These conditions speak to the necessity of keeping rural young children at the forefront of early childhood policy discussions and decision-making.

Early Childhood may be defined as a period of rapid growth and development from birth to age 8 (grade 3). ${ }^{\text {xxx }}$ Children in this age group are
characterized by their intense curiosity about the world around them, a desire to be actively engaged in their own learning through hands-on and play-based practices, and a need for developmentally appropriate opportunities that encourage independence. Several distinctions may be made within this age range, including a focus on infants and toddlers (birth to age 2), preschool (ages 3-5), and school-aged children (kindergarten to grade 3). In this section of WRM, we bring focus to positive changes in access and programming for rural children and address the need for continued advocacy for rural early childhood education stakeholders and children. The section details several current developments in rural early education across the early childhood spectrum of birth to age 8 , while others specifically relate to children birth to age 5 or school-aged children (kindergarten to grade 3).

## Developments Across the Early Childhood Age Spectrum <br> Recruiting and Retaining Teachers

Recruiting and retaining teachers in early childhood settings has long been a pressing issue in rural areas. ${ }^{\text {xxxi, xxxii, xxxii, xxxiv }}$ Teachers in rural settings report high levels of job satisfaction related to family partnerships, close communities, and supportive staff structures; ${ }^{x x x}$ yet, rural schools continue to report teacher shortages for numerous reasons. These include issues related to inadequate funding, lack of amenities, social and geographic isolation, and limited access to professional development opportunities. ${ }^{\text {xxxi, xxxvii, xxxviii }}$ Shortages in special education, specialized instructional support (e.g., reading intervention), preschool, and infant/ toddler settings are areas of particular need for rural schools ${ }^{\text {xxxix, xl, xi }}$ and illuminate the ongoing need to address equity and access to support
teacher recruitment and retention in rural school settings.

Infant, toddler, and preschool settings represent an area of particular need for recruiting and retaining teachers. Several factors contribute to the lack of high-quality teachers for infants, toddlers, and preschoolers in rural settings. Of concern, infant and toddler (birth to age 2) child care is often provided by individuals without advanced training and/or education in early childhood. When advanced degrees are required, infant and toddler child care is most often provided by individuals with a 2 -year associate's degree in child development without teacher licensure. Teacher licensure acquired through a bachelor's degree granting teacher preparation program typically begins with age 3 (preschool). Despite higher quality learning settings being closely tied to teacher qualifications, only 25 states require a bachelor's degree with licensure for all lead teachers working in preschools. ${ }^{x l i i}$ In nearly half of states, lead teachers may have an associate's degree in child development, and two states (New Mexico and Virginia) require only a high school diploma for lead teachers in non-public preschool settings. ${ }^{\text {liii }}$ To improve the training and expertise of people who work with young children, many have spoken of the need for all educators who work with children birthage 8 to have a bachelor's degree with teacher licensure. ${ }^{\text {xiv, }{ }^{\text {dlv }} \text { Of course, to enact these changes, }}$ competitive salaries for infant, toddler, and preschool teachers would need to be supported, an area where large wage disparities currently exist.

Wages and benefits for preschool teachers are woefully inequitable in comparison with elementary school teachers, with most states allowing licensed preschool teachers to be paid considerably less than licensed teachers in grades K-3. ${ }^{\text {xlvi }}$ In fact, only four states (Hawaii, New Jersey, Oklahoma, and Rhode Island) require that all preschool teachers have starting salaries and
salary schedules that are commensurate with teachers in kindergarten to grade 3 settings. ${ }^{\text {xlvii }}$ Additionally, unless a preschool teacher is employed by a public school system, they are typically unable to participate in collective bargaining. ${ }^{\text {xlvii }}$ Wage conditions and lack of licensure requirements create the perception that birth to age 5 care is unimportant and exacerbate an ever-widening wage gap between birth to age 5 teachers and state-funded/ licensed preschool and elementary settings. Simply put, if earnings and associated benefits for infant, toddler, and preschool classroom teachers are not competitive with elementary school settings, then rural infant, toddler, and preschool settings will continue to be unable to attract and retain highly-trained educators. The lack of education and licensure requirements across birth to age 5 settings makes recruiting and retaining high-quality educators with specific expertise and training in early childhood education difficult and creates further equity issues in rural settings. These conditions have long-lasting ramifications for the development and educational outcomes of children in rural settings.

Several practices throughout rural settings are working to address teacher recruitment and retention needs. The Colorado Center for Rural Education was formed in 2017 to recruit and retain teachers in the state's rural school districts. The Center provides financial incentives for teacher candidates (i.e., preservice teachers): $\$ 4,000$ for teacher candidates to complete a student teaching placement and then teach in the districts after graduation, as well as support for in-service teachers to earn the qualifications to teach concurrent enrollment courses or to become National Board Certified. Minnesota included a provision in recent legislation (HF2749) to address rural teacher recruitment by creating a program to provide grants for licensed teachers who agree to teach in rural regions with teacher shortages. Many other states (e.g., Alaska,

Mississippi, North Dakota, Texas, Maine) provide loan repayment for teachers who choose to teach in rural areas with teacher shortages. ${ }^{\text {xix }}$ Teacher preparation programs in rural areas also create opportunities for teacher candidates to work in rural schools, creating a possible pipeline of highquality new teachers for rural schools. ${ }^{1}$
School-university partnerships like these should continue to be developed and nurtured as a viable way to attract and retain teachers in rural school settings. Although efforts such as these are encouraging, programs that address chronic issues related to recruiting and retaining high-quality teachers in rural areas should be expanded and pursued. Moreover, rural schools face similar challenges in recruiting and retaining high-quality administrators.

## Adverse Childhood Experiences

 Abuse, Neglect, and Trauma. The number of children who experience abuse and/or neglect continues to rise, and childhood trauma is estimated to impact more than two in three children by age 16 . Childhood trauma has long been linked to adult outcomes, including mental health concerns, learning issues, engagement in risk-taking behaviors, susceptibility to disease, and even early death. ${ }^{\text {li, }}$ li, , liii Childhood trauma in rural areas has been challenging to track, as there are few studies that examine adverse childhood experiences specific to locale. ${ }^{\text {liv }}$ A recent report from the National Advisory Committee on Rural Health and Human Services posits that exposure to adverse experiences in rural areas is likely to be higher than in non-rural areas. ${ }^{\text {lv }}$ The Fourth National Incidence Study of Child Abuse and Neglect found that rural children were twice as likely to have experienced abuse and neglect as children in urban settings. ${ }^{\text {lvi }}$ Additionally, opioid and other drug use in rural areas continues to be a huge contributor to adverse childhood experiences. Deaths from drug overdoses are increasing at higher rates in rural areas than in any other locale and are considered by many experts to be at epidemic levels. ${ }^{\text {lvii }}$ For youngchildren who enter the juvenile court system due to abuse or neglect in rural areas, parental drug abuse is often the cause. As adult opioid abuse is linked to adverse childhood experiences, ${ }^{\text {l }}$ viii, lix the need to increase services that address both prevention and response to abuse, neglect, and childhood trauma in rural settings is imperative.

Several federal agencies are tasked with providing support that prevents abuse, neglect, and childhood trauma. These include the Health Resources and Services Administration (HRSA), the Administration for Children and Families (ACF), and the Substance Abuse and Mental Health Services Administration (SAMHSA). These agencies house the Maternal Child and Health Bureau (MCHB), the Child Abuse Prevention and Treatment Act (CAPTA), and the Children's Bureau. Tasked with preventing adverse childhood experiences and trauma for children, these agencies support programs and projects such as the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Program; Child Care and Development Fund; Head Start/ Early Head Start; and the Safe Schools/Healthy Students Initiative. Increasing federal funding for these agencies and their associated programs and projects is an important way to address abuse, neglect, and trauma for children in rural areas.

For young children who have experienced childhood trauma, especially abuse or neglect, several practices are beneficial for increasing positive outcomes. When abuse and neglect of children are reported, removing children from their homes may cause an additional trauma, making placement in foster care a last resort. Practices that allow children to remain in their homes while their parents seek drug treatment (e.g., family drug courts) are associated with better outcomes for children. ${ }^{\text {lx }}$ Children who enter the juvenile court system due to abuse or neglect are guaranteed special legal representation through CAPTA in the form of a Guardian ad Litem (GAL). A GAL may be a
juvenile court's staff attorney or other trained employee or a volunteer known as a Court Appointed Special Advocate (CASA). CASA programs nationwide are growing, including in rural areas, creating an increase in communitybased supportive practices for young children. Nationally, children with CASAs spend $25 \%$ less time in foster care and are less likely to reenter the child welfare system (CASA, 2017). Recent research about a CASA program in a rural area revealed that the CASA program was associated with lower case loads for volunteers, increased time spent with children, and a commitment to staying on a case until it was resolved with permanency. ${ }^{\text {kx }}$ The study also noted a need for additional volunteers in rural settings, particularly people of color, men, and people who are able to work with children with more serious needs (e.g., significant health care needs). Partnerships that capitalize on rural assets and cross educational, community, and federal sectors will be essential in reducing the impact of abuse, neglect, and trauma in rural areas.

Poverty. Data released by the U.S. Census Bureau (2018) reveal that about 12.8 million children lived in poverty in 2017, about 450,000 fewer than in 2016. Despite this positive change, about one in three Americans and one in five (17.5\% of) children ages 5 and under live in poverty. Children aged 5 and younger experience poverty at higher rates than any other age range in the U.S. ${ }^{\text {lxi }}$ Poverty rates for children under age 5 are at or above $25 \%$ in nine states, and only eight states report poverty levels below $10 \%$ for children 5 and under. Black, Hispanic, and American Indian/Native Alaskan children aged 5 and under were three times more likely to live in poverty than white children. ${ }^{\text {kxiii }}$ In general, poverty rates are higher in rural areas than nonrural, and rates of child poverty in rural settings (22.8\%) continue to be higher than in non-rural (17.7\%) settings, although the gap has narrowed in recent years. ${ }^{\text {lxiv }}$

Rural poverty rates vary widely across geographic locales, with high levels of poverty concentrated in the rural south, in rural central Appalachia, the rural southwest, and rural areas of Alaska and Hawaii. For children, extreme poverty (an annual household income of less than half the poverty level) or persistent poverty (counties with 20\% or more of children under age 18 who are living in poverty based on consecutive census polls) are of particular concern. ${ }^{\text {l. }}$, ${ }^{\text {lxvi }}$ Children who grow up in poverty, especially in extreme and persistent poverty, are at greater risk of health, developmental, and learning challenges. For example, children who experience poverty are more likely to face health concerns related to lead exposure in paint and plumbing, food insecurity, and lack of access to health care services. Early health and learning screening services for children in rural regions continue to be inadequate and access to health care services in rural regions continues to decline. ${ }^{\text {kxii }}$ These issues should continue to shape policy conversations and decisions about the development and education of children in rural areas.

## Immigrant and Undocumented Children.

One in four children in the United States lives with at least one immigrant parent. ${ }^{\text {lxviii }}$ An estimated 4.5 million children have U.S. citizenship but have at least one undocumented parent, and another 775,000 children have undocumented status themselves. ${ }^{\text {lxix }}$ As their families respond to employment needs in rural communities (e.g., manufacturing, farming, and meatpacking industries), the number of immigrant and undocumented children living in rural areas continues to grow. Immigrant influx to rural areas has been credited with reversing the decline of rural populations, increasing rural school enrollments, and bringing economic vitality to rural communities. ${ }^{\text {kx }}$ Despite this, immigrant populations have not always been welcomed in rural areas. ${ }^{\text {lxxi }}$ In 1982, Plyler v. Doe guaranteed that all children, regardless of their citizenship status, have the right to a publicly
funded education in the United States. However, recent legislative proposals and practices place the welfare of immigrant and undocumented children at risk for poor health and educational outcomes.

Children from immigrant families face significant anxiety related to deportation (both for themselves and their family members) and family separation. ${ }^{\text {Lxii, }}$ lxiii Additionally, research reveals that mounting fears within immigrant families are resulting in decreased access to nutrition, health care, and educational services for young children. ${ }^{\text {lxxiv }}$ Barriers to accessing needed health and educational services for children include fear of legal consequences (e.g., deportation and family separation), language, and transportation. ${ }^{\text {.xxv }}$ To mitigate these barriers, it is imperative that rural communities work together to welcome immigrant families and children. To benefit the wellbeing of young immigrant children in rural settings, rural communities should work with advocacy agencies to increase access to health and educational services and to provide "know your rights" education. ${ }^{\text {lxxvi }}$ Practices such as these are essential for positive outcomes for young immigrant children and should also be pursued by state and federal stakeholders.

Food Insecurity. Food insecurity, or uncertainty about the source of one's next meal, impacts one in six children in the United States. ${ }^{\text {lxxvii }}$ It may seem logical to assume that access to food in the very areas where it is grown would be easy, yet rural areas face higher rates of food insecurity than non-rural areas. ${ }^{\text {lxxiii, }{ }^{\text {kxix }} \text { As reported by }}$ Feeding America, 2.4 million rural households are food insecure, and $86 \%$ of the counties with the highest rates of child food insecurity are rural. ${ }^{\text {l.xx }}$ Remoteness of rural places creates food deserts, and for families with economic instability, food pantries in rural areas are often far away. If families do not have access to
transportation, reaching available food resources becomes even more problematic. Food insecurity is linked to a variety of health and learning challenges for children, including higher rates of mental health issues and lower educational achievement. ${ }^{\text {lxxxi }}$ As such, increasing access to reliable and healthy food sources in rural areas, especially those in food deserts, is of paramount importance.

Several federal nutrition programs address food insecurity, including the Supplemental Nutrition Assistance Program (SNAP); Women, Infant, and Children (WIC); the School Breakfast Program; and the National School Lunch Program. Yet, when surveyed, only $58 \%$ of families who had experienced food insecurity participated in one of these programs in the previous month, ${ }^{\text {lxxxii }}$ and, for households with transportation barriers in rural food deserts, this assistance may be inaccessible. The School Breakfast Program and the National School Lunch Program are successful at identifying school-aged children who are in need and providing food during the school day, ${ }^{\text {lxxxii, }}$, lxxxiv but access to food after school hours, on weekends, or during breaks from school remains challenging for schools in all locales.

Rural areas often cannot support local grocery stores, and distance from food pantries and other community-based food programs (e.g., community dinners) creates persistent challenges. ${ }^{\text {. } x x x y}$ However, several practices are being utilized successfully in rural areas to increase children's access to reliable and sustainable food sources. The prevalence of farmers markets is increasing in rural areas, making it easier to access fresh produce in areas that cannot sustain a grocery store. ${ }^{\text {.kxxvi }}$ Many Farmers Markets accept SNAP and WIC benefits, and 19 states have adopted the Double Up Food Bucks (funded by the U.S. Department of Agriculture), which matches SNAP participants'
spending at participating farmers markets up to $\$ 20$ per day. ${ }^{\text {lxxxvii }}$ Dollar stores may also increase food access in deserts, yet bring with them controversy for their lack of access to fresh, healthy produce and a continuing threat to locally-owned small grocery stores. Schoollocated food pantries in rural areas are also increasing in number, creating a more accessible place for families to seek food support. ${ }^{\text {lxxxviii }}$ Many rural schools are developing backpack programs that send food home with children for weekends or long holidays, and some rural areas offer summer programming that includes meals at schools, libraries, or other nonprofit entities. Finally, the increase of home and community gardens is demonstrating sustainable means of providing fresh produce for children and families in rural areas. Continued federal and state support for food programs, increasing the number of children whose families access available food supports, and building locallydriven supports in rural areas are all important mechanisms for shrinking the number of children who experience food insecurity in rural areas.

## Update on Young Children (Birth - Age 5) <br> Teen Pregnancy

Across the United States, pregnancies among women ages 15-19 are at an all-time low, ${ }^{\text {lxxxix }}$ yet troubling geographic disparities exist in rural counties where teen birth rates remain higher than the national average. ${ }^{\mathrm{xc}}$ Teenage mothers are more likely to experience poor pregnancy outcomes, poverty, and low educational attainment than mothers who are older, and children of teen mothers are at higher risk of infant mortality, have greater rates of foster care placement, have lower rates of high school graduation, and are more likely to be teen parents themselves. ${ }^{\text {xci }}$ Given these adverse risks, providing access to sexual health education and
reproductive health care services should be a focus in rural areas.

To reduce teen pregnancies, a preponderance of evidence points to the need for access to contraceptive and sexual health education. However, access to quality health care services continues to decline in rural areas, with more than 100 rural hospitals closing between 2005 and 2017. ${ }^{\text {xcii }}$ Publicly funded women's health clinics face defunding in several states, a trend that is linked to a $3.4 \%$ increase in teen pregnancy in Texas. ${ }^{\text {xcii }}$ With a decline in rural health care services comes reduced access to sexual health services, including contraceptives, prenatal, and delivery care. Across rural areas, fewer than half of women live within 30 minutes of a hospital that offers obstetric services, a number that continues to grow as rural hospitals face closure. ${ }^{\text {xciv, }{ }^{\text {xcy }}}$ School-based health care centers offer promise for improving access to reproductive health care for rural teens. However, school-based health care centers are often hampered by restrictions regarding access to contraceptives, and only $37 \%$ of school-based health care centers offer contraceptives on-site. ${ }^{\text {xcvi, xcvii }}$ These circumstances are contributing factors to the higher rates of teen pregnancies in rural regions. Given declining health care accessibility in rural regions, it is imperative to increase sexual health education and contraceptive availability for rural teens.

## Breastfeeding

Breastfeeding provides a host of benefits for both mothers and babies, is linked to positive child outcomes, and is considered by health officials to be a key strategy for improving maternal and child health. ${ }^{\text {ccvii }}$ The American Academy of Pediatrics recommends that babies be exclusively breastfed for about the first six months of life, at which time complementary solids may be introduced with continued breast milk for the first year of life. ${ }^{\text {xcix }}$ According to the

Breastfeeding Report Card, breastfeeding rates in the United States are increasing (currently, 83.2\% at birth and $57.6 \%$ at six months of age).c Despite this, disparities in breastfeeding rates exist. Infants born to younger mothers, infants who are eligible for and receiving SNAP or WIC benefits, and infants living in rural areas are less likely to receive breast milk. ${ }^{\text {ci }}$ In the most recent data on breastfeeding rates, $71.4 \%$ of infants in non-metropolitan areas are ever breastfed, compared to $83.5 \%$ of infants in metropolitan areas who are ever breastfed. ${ }^{\text {cii }}$

Many barriers to breastfeeding are shared across locales, including concerns about infant weight gain, unsupportive work environments and lack of parental leave, incompatibility of mothers' medications, and lack of family support. ${ }^{\text {ciii }}$ International Board Certified Lactation Consultants (IBCLCs) and/or Certified Lactation Counselors (CLCs) provide breastfeeding education to pregnant women and their families, offer support during crucial newborn breastfeeding experiences, and nurture practices that foster long-term breastfeeding. Yet, access to lactation support, both at hospitals and within communities, is particularly limited in rural regions. ${ }^{\text {civ, cv }}$ As mothers who receive SNAP or WIC services are less likely to breastfeed, offering lactation support through these organizations also provides an important mechanism for increasing breastfeeding education and support for mothers. In rural regions, increasing access to breastfeeding education and expert support holds an important key to increasing initial and continued breastfeeding.

## Early Screening \& Intervention

Early childhood experts are unanimous in their support of early screening and intervention programs to identify and provide support for young children. Early intervention is key in lessening the impact of learning and behavioral
difficulties. However, less than $50 \%$ of children's special needs are identified before children go to school. ${ }^{\text {cvi }}$ First funded in 2010, the Maternal, Infant, and Early Childhood Home Visiting program is administered by the Health Resources and Services Administration and services all 50 states. ${ }^{\text {cvii }}$ The program provides early screening, support, and guidance to at-risk pregnant women and families with children birth to age 5 through home visits from social workers, early childhood educators, and/or nurses by partnering with parents to assess children's needs and connect them with relevant services. Encouragingly, in 2018, the program was allocated $\$ 400$ million per year until 2022, yet after needs assessments conducted by each state, the program is only funded in $22 \%$ of rural counties. ${ }^{\text {cviii }}$ Early screening and intervention programs such as these are paramount to improving child learning and development outcomes in rural regions, and increasing access to such programs should be a priority for rural stakeholders.

## Child Care Deserts

Nearly $60 \%$ of mothers with a child under age three are employed, ${ }^{\text {cix }}$ making access to highquality child care a pressing concern across all locales in the United States. Despite a high level of need, in a recent report of 22 states, researchers found that $51 \%$ of families live in a child care desert defined as, "any census tract with more than 50 children under age 5 that contains either no child care providers or so few options that there are more than three times as many children as licensed child care slots." ${ }^{\text {cx }}$ In rural areas, this number is even higher with $58 \%$ of rural families living in a child care desert. ${ }^{\text {cxi }}$ Decreased access to child care is associated with lower employment rates, and, indeed, child care deserts are more often located in low-income rural regions where families are more likely to experience securing child care as a barrier to employment. ${ }^{\text {cxi }}$ Child development during the early years is particularly important, and high-
quality, stimulating environments for young children are essential for optimal growth and development. As such, child care deserts may have long-lasting educational and developmental impacts on young children.

For the youngest children, infants and toddlers, access to licensed child care settings is especially needed in rural areas. cxiii Attracting and retaining infant-toddler teachers is an issue across locales (see Recruiting and Retaining Teachers). It is exacerbated by requirements for low childteacher ratios that makes child care for infants and toddlers expensive. ${ }^{\text {xiv }}$ Given these concerns, many families rely on unlicensed providers or cobble together child care arrangements that are unreliable. ${ }^{\text {cxv }}$ This highlights a pressing need for ongoing advocacy to support the funding of licensed infant-toddler education programs and centers, especially in rural areas where the need is particularly great. Hearteningly, legislation titled the Child Care Workforce and Facilities Act of 2019 was introduced in the House with bipartisan support in March 2019 to address rural child care deserts. ${ }^{\text {cxvi }}$ This legislation would provide grants to support the education, training, and retention of early childhood educators, as well as building, renovating, and expanding child care facilities in rural areas with child care deserts. ${ }^{\text {cxvii }}$ Passage of this legislation would provide essential progress in addressing access to reliable and high-quality child care experiences for young children in rural child care deserts.

## Preschool Access and Resources

As quality preschool experiences are associated with greater learning gains during school and beyond, cxvii, cxix the need for increased participation in preschool is a topic that garners widespread recognition across bipartisan lines. However, enrollment in state-funded preschool continues to experience little year-to-year growth, and federal support of preschool does not provide the support needed to serve all
children. Researchers from The National Institute of Early Education Research (NIEER) caution that, "At the current pace, it would take states nearly 20 years to serve just half of all 4 -yearolds in preschool" (p. 5). . ${ }^{\text {cx }}$ With both Alaska and Kentucky receiving Preschool Development Grants specifically aimed at increasing preschool enrollment in rural areas, some progress in preschool implementation may be observed. ${ }^{\text {cxi }}$ Additionally, Utah implemented a kindergarten readiness program that prioritizes rural children. ${ }^{\text {cxxii }}$ These developments provide models for rural stakeholders in other states.

Pay for preschool teachers and access to compensated professional development opportunities remain consistently below that of elementary teachers in public school systems. ${ }^{\text {cxiii }}$ As salaries and access to professional development are already inadequate in rural schools, this creates another barrier for rural children and educators.

While a focus on preschool enrollment is important, creating and sustaining quality preschool programs is equally important. In the most recent State of Preschool report, ${ }^{\text {cxxiv }}$ only three states (Alabama, Michigan, and Rhode Island) met all 10 of NIEER's benchmarks for preschool quality standards. Only half of states require that all lead preschool teachers have bachelor's degrees with licensure. ${ }^{\text {cxv }}$ To improve access to preschool and the quality of children's preschool experiences, stakeholders must fully invest in strategies that expand preschool enrollment and quality, increase the number of states that require bachelor's degrees with licensure for preschool teachers, and provide preschool teachers with equitable pay and access to professional development.

## The Changing Face of Early Years Education

With states now requiring kindergarten readiness testing and some using the data in their state
accountability reporting, testing continues to alter the state of early years education. Young children need access to research-based learning environments that utilize developmentally appropriate practices to nurture children's learning through integrated, play-based, and justice-oriented practices. Although some assessments are useful in providing early screening for identification of special needs and for early childhood program development, kindergarten readiness assessments place an onus on preschools to develop and deliver curriculum that prepares children to perform well on assessments. Encouragingly, the development of Early Learning Guidelines has been a focus in early childhood practice, and guidelines now exist in all 50 states. ${ }^{\text {cxxi }}$ Yet, standard practices for defining and measuring kindergarten readiness do not exist, and assessment practices vary greatly across states. ${ }^{\text {cxxvii }}$ Of particular concern, these assessment-driven goals are often at odds with the social, emotional, and mental maturity that child development experts believe young children should be experiencing in early learning environments.

Readiness assessments also need to be responsive to the diverse cultural, ethnic, and linguistic backgrounds that children bring to learning experiences. To ensure the efficacy of kindergarten readiness practices, stakeholders must be sure that readiness assessments are utilized to enhance early learning practices, including improving parent-school relationships and providing effective screening of special needs. Of critical importance, kindergarten readiness assessments should remain one of many tools for creating high-quality learning experiences for young children and should not be the sole drivers of child-centered curricular decision-making.

## Update on School Aged Young Children (Ages 5-8) Loss of Social Studies \& Science Instruction

Despite widespread recognition that knowledge of social studies and science is essential to the development of a well-informed and active citizenry, instructional time for both content areas continues to decrease nationwide and is woefully inadequate in today's K-3 classrooms. cxxviii, cxxix, cxxx Rural areas are resplendent with access to natural environments that can provide place-based learning experiences with strong connections to social studies and science content; yet, rural schools often lack the resources to access them and rural school teachers have limited opportunities for professional development in social studies and science. ${ }^{\text {cxxi, cxxxii }}$ Additionally, access to high-quality informal (out-of-school) learning experiences in rural areas is often limited in early childhood settings. ${ }^{\text {cxxiii, cxxxiv }}$ Approaches for addressing and closing opportunity gaps in rural areas are emerging, but considerably more work to identify strategies through research-based practices is needed. ${ }^{\text {cxxv }}$

Mounting accountability pressures that emphasize reading and math are often cited as the cause of reduced instructional time for science and social studies. However, the loss of state mandated testing in social studies in many states also influences teachers' instructional decision-making, resulting in decreased instructional time for social studies. ${ }^{\text {cxxxvi }}$ Some research suggests that when teachers perceive having autonomy over allocation of instructional time, more time is devoted to social studies content and instruction. ${ }^{\text {cxxvii }}$ Additionally, teachers' perceptions of positive support for social studies instruction from building leadership is associated with stronger emphasis on social studies instruction. ${ }^{\text {cxxxviii }}$ Other research suggests that time for social studies may be increased by externally controlling teachers'
schedules so that time is specifically designated for social studies instruction. ${ }^{\text {cxxix }}$

Finding ways to embrace an integrated approach shows great promise for increasing instructional time. For example, research suggests that integration of social studies and science content with English-Language Arts is positively correlated to more social studies and science content instruction. ${ }^{\text {cxl, cxli, cxlii }}$ In science disciplines, a STEAM (STEM + Arts/Humanities) approach provides authentic experiences with STEM content that may be connected to placebased science and social studies instruction. Finally, increasing access to informal learning opportunities may also provide support of STEM/STEAM and social studies experiences for rural elementary children. cxliii

## Every Student Succeeds Act

The Every Student Succeeds Act (ESSA; P.L. 114-95) became law in 2015, reauthorizing the 50-year-old Elementary and Secondary Education Act (ESEA) and replacing the No Child Left Behind (NCLB) Act of 2002. Since the release of the last version of Why Rural Matters, state and local educational agencies have been working to implement all components of ESSA. During the 2019-20 school year, nearly all states will fully implement ESSA accountability systems, and all states are expected to be fully implementing their school improvement plans by the 2020-21 school year. ${ }^{\text {cxiv }}$

Encouragingly for funding of rural schools, the Rural Education Achievement Fund (REAP) was reauthorized by ESSA. ${ }^{\text {cxlv }}$ Implementation of ESSA in rural schools represents some interesting findings. In an ESSA implementation analysis conducted by the First Five Years Fund (FFYF), cxlvi researchers reported several findings related to rural school ESSA implementation. All but two states reported in their planned activities an intent to increase the continuity of learning
from early childhood education programs to kindergarten. Thirty-one states reported plans to use their Title II funding for professional development to increase the ability of principals to support teachers in meeting the needs of children under the age of eight. Unfortunately, no states cited a specific plan to focus their spending on early learning in rural schools, and only Alabama and Oklahoma chose to create a plan to assist in the transition from preschool to kindergarten.

ESSA requires states to engage community stakeholders; yet, only $1 / 3$ of states addressed community stakeholders in their implementation plans. ${ }^{\text {cxlvi }}$ As strong community engagement represents a strength of rural schools, this presents a possible equity issue for rural communities. Finally, ESSA requires schools to choose research-based programs that strongly exemplify evidence-based practices. Some researchers ${ }^{\text {cxlvii }}$ question the standardized application of evidence-based practice in rural schools, saying, "Programs with 'strong' evidence may fail to translate into the intended outcomes for students in rural contexts" (p. 36). As such, rural school characteristics must be considered when adopting programs and practices that comply with ESSA requirements in rural schools.

## Inclusive School Settings

The Individuals with Disabilities Education Act guarantees children with disabilities a free appropriate public education and makes provisions for that education to happen in a child's Least Restrictive Environment (LRE). cxlix Given the shortage of special education teachers in rural schools, educators must often turn to innovative strategies to ensure that students with special needs receive the support they need. ${ }^{\text {cl }}$ At the forefront of this discussion is the use of technology to provide support in rural schools. One group of researchers describes the positive impact of providing immediate instructional
coaching through webcam and bug-in-ear technology in a rural Kentucky school. ${ }^{\text {cli }}$ This technology allows an instructional coach to provide real time feedback using a webcam and ear bud, or, alternatively, to provide feedback that the instructional coach and teacher can review during an online conferencing session at a later time. Since webcam and bug-in-ear feedback is often conducted remotely, this is a promising way to increase professional development for rural teachers. One researcher describes how a rural school-university partnership was particularly effective in preparing teacher candidates to both work in inclusive classrooms and in sparking interest in working in rural schools. clii Partnerships such as this provide a useful model for preparing teacher candidates to pursue teaching in inclusive rural settings.

Teacher pay is a pressing concern that impacts the hiring and retention of special education teachers in rural areas. Incentive programs that pay teachers an additional stipend for teaching in a rural school have been tried in many states but have been largely ineffective. ${ }^{\text {clii }}$ Some researchers recommend alternative incentive programs to improve recruitment and retention of special education teachers in rural areas, including strategies to foster a sense of community appreciation and support for affordable housing for new teachers in rural areas. ${ }^{\text {cliv }}$ Developing best practices should remain a focus for rural special education stakeholders, and, given the unique nature of individual rural settings, particular attention should be given to placespecific strategies.

## Justice-Oriented Curricular Practices

In recent years, educators in all settings have watched as hate speech and violence directed toward marginalized populations have increased, creating a mandate to utilize justice-oriented curricular practices that begin in the early years. Teachers often express concerns related to
addressing critical content with their students, yet research reveals that children are both capable of and eager to engage in discussions about challenging topics. ${ }^{\text {clv, clvi }}$ Of particular concern, a study about rural teacher candidates' dispositions about critical pedagogy found that rural teacher candidates were resistant to justice-oriented curricular practices. ${ }^{\text {clvi }}$ Common educator concerns about addressing critical content with children include fear of parent backlash, administrative disapproval, and uncertainty about how to present or discuss justice-oriented topics with their students. ${ }^{\text {clvii }}$ To identify themselves in the curriculum and to recognize and address injustice around them, children in rural areas need exposure to critical, justicefocused curricula. School administrators and teachers also need to be prepared to utilize curricular practices with this focus.

Several practices for utilizing justice-focused curricula are particularly relevant for educators in rural settings. Children arrive in teachers' classrooms with a multitude of experiences and from diverse backgrounds. Yet, in American classrooms, too often children do not see their experiences reflected in classroom practices. Additionally, rural settings are historically stereotyped in the media and in children's literature in ways that present deficit perspectives. ${ }^{\text {clix, clx }}$ Some researchers argue that a focus on culturally-relevant, place-based teacher preparation strategies is essential for preparing and recruiting educators to work in rural schools, and posit that, in rural settings, one way to embrace culturally-relevant pedagogy is to utilize place-based practices. ${ }^{\text {clxi }}$

Culturally-relevant and place-based curricula may also be implemented through critical literacy. Critical literacy is a term that has been around for $30+$ years and is part of the sociocultural perspective on education. clxii Grounded in principles of democracy and
justice, critical literacy encourages students to examine the role of power in social constructs and popular media and to consider actions that they can take to promote justice. ${ }^{\text {clxiii, clxiv }}$ Critical children's literature, especially literature that examines the intersection of critical content (e.g., race, ethnicity, poverty, gender, exceptionalities, and/or sexuality), has an essential place in rural schools. Yet, teachers may feel discomfort in addressing these topics in their classrooms. ${ }^{\text {ckv }}$ As such, in rural elementary schools, professional development for utilizing justice-based curricular practices is needed, and teacher preparation programs in rural settings should be making
justice-focused pedagogy a foundational focus of educator preparation practices.

## Relevant Early Childhood Research Resources

As in previous iterations of Why Rural Matters, we provide a list of applicable early childhood resources that are relevant to early childhood education stakeholders. These resources highlight journals, research centers, organizations, and selected longitudinal research studies that report initiatives, programs, and advocacy work to support early childhood education.

## Select Scholarly Journals

| Journal Name | Description |
| :--- | :--- |
| Child Development Perspectives | A multidisciplinary journal from The Society <br> for Research in Child Development that <br> focuses on the psychological development of <br> young children. |
| Child Welfare Journal | A bi-monthly journal from the Child Welfare <br> League of America that focuses its research <br> and findings on child maltreatment and on <br> the best practices and methods for developing <br> compassionate child welfare programs <br> for professionals. |
| Contemporary Issues in Early Childhood | An international journal that focuses on issues <br> for young children from birth through age eight <br> and their families. |
| Dimensions of Early Childhood | A journal from the Southern Early Childhood <br> Association with articles that aim to increase the <br> knowledge base of early childhood educators and <br> families with children from birth to age eight by <br> engaging with relevant and current issues. |
| Early Child Development and Care | A multidisciplinary journal that serves early <br> care professionals who seek to publish work <br> related to research, planning, education, and <br> care of infants and young children. |

Early Childhood Education Journal<br>Early Childhood Research \& Practice

Early Childhood Research Quarterly

Early Education and Development

Early Years: An International
Research Journal

Infant Mental Health Journal

A journal that analyzes issues, trends, policies, and practices for early childhood education from birth through age eight.

A bilingual journal in English and Spanish that focuses on early childhood care and education, with emphasis on classroom dynamics, curriculum, ethics, and parent participation.

A journal that focuses on early childhood development and education (birth to eight years old) that offers analysis of educational policy, childcare, and professional development for early childhood educators and children's psychological well-being.

A journal created in order to bridge the gap between research and practice for preschool, daycare, and those who offer specialized care for young children in early childhood programs and their families.

A multicultural and multidisciplinary journal from the Association for Professional Development in Early Years that brings together many perspectives on early childhood education and research dealing with pedagogy, family diversity, and educational policy.

A publication from the World Association for Infant Mental Health that deals with the social, emotional, and psychological development of infants and targets issues that place infants at risk for healthy development and overall family development.

An interdisciplinary journal created in order to provide groundbreaking intervention strategies for children perceived to be at risk for developmental delay or disorders from birth to age 5.

An international journal that focuses on children with special needs from birth to age 8.
$\left.\begin{array}{|ll}\text { International Journal of Early Years Education } & \begin{array}{l}\text { A journal that serves as an international forum } \\ \text { for comparative research studies and new } \\ \text { initiatives that aim to further the knowledge } \\ \text { base of those who work in early childhood } \\ \text { education world-wide. }\end{array} \\ \hline \text { Journal of Early Childhood Research } & \begin{array}{l}\text { A tri-annual journal that focuses on young } \\ \text { children's health, pediatrics, and psychological } \\ \text { issues coupled with articles on teaching } \\ \text { strategies and early childhood education. }\end{array} \\ \hline \text { Journal of Early Childhood Teacher Education } & \begin{array}{l}\text { A journal produced by the National Association } \\ \text { for Early Childhood Teacher Education that is } \\ \text { for the dissemination of research and practice } \\ \text { for early childhood education. }\end{array} \\ \text { Journal of Early Intervention } & \begin{array}{l}\text { A journal that aims to offer intervention } \\ \text { strategies for infants, toddlers, and young } \\ \text { children at risk for developmental disorders } \\ \text { and disabilities and special needs. }\end{array} \\ \text { Journal of Research in Childhood Education } & \begin{array}{l}\text { A publication of the Association for Childhood } \\ \text { Education International, this journal features } \\ \text { research driven articles about the education of } \\ \text { children from infancy to early adolescence. }\end{array} \\ \text { Zero to Three Journal } & \begin{array}{l}\text { A bimonthly publication from the National } \\ \text { Center for Infants, Toddlers, and Families } \\ \text { created to provide up-to-date best practices } \\ \text { for those who work with children under } \\ \text { preschool age. }\end{array} \\ \text { Young Children } \\ \text { Tor infants, toddlers, and preschoolers who may } \\ \text { fevelop disabilities or other disorders for }\end{array}\right\}$

## Center Name <br> Description

Center on the Developing Child at Harvard University

The center supports research in three areas, including Science, Intervention Strategies, and Learning Communities. The Center supports scientific research with the goal of improving educational outcomes for young children.

Child Welfare Information Gateway
With the goal of connecting child welfare professionals to relevant resources, this organization is a data hub for information dedicated to reducing the impact of adverse childhood experiences.

Council for Exceptional Children (CEC),<br>Division for Early Childhood

The CEC's Division of Early Childhood focuses on young children (birth through age 8) who have or are at risk for developmental delays and disabilities.

## Crane Center for Early Childhood <br> Research and Policy

An Ohio State University research center that conducts empirical research focused on improving children's learning and development in the home, school, and community.

The Institute supports research focused on medical advances that improve health for children and their families.

This organization seeks positive developmental and educational outcomes for young children, birth to age 5, by investing in research and high quality early care and educational experiences.

The foundation supports early childhood research by providing research grants in three categories: PreK-3rd grade education, Young scholars program, and Child well-being index.

A 50-year-old center located within the University of North Carolina at Chapel Hill that conducts interdisciplinary research with the mission of improving the lives and educational outcomes of children and their families.

National Association for the Education of Young Children (NAEYC)

The research branch of the U.S. Department of Education, IES provides scientific evidence on education practice and policy and seeks to share this information in formats that are useful and accessible to education stakeholders.

This organization is dedicated to improving the developmental and educational outcomes of young children, birth to age eight. Early care facilities may receive national accreditation through NAEYC.

The organization is the national accreditor for Child Advocacy Centers and provides advocacy for children who have experienced maltreatment.

National Institute for Early Education Research (NIEER)

Operated within Rutgers University, NIEER conducts and communicates early childhood education research that that supports highquality, effective educational experiences for all young children.

Internationally recognized as an advocate for vulnerable children worldwide, Save the Children works to address adverse childhood experiences such as hunger, homelessness, sickness, and access to educational opportunities.

This center at the University of Chicago conducts research on cognition, action, and perception in the early years of life. Research focus includes space, number, and language development.

Zero to Three

This organization's mission is to support families and the development of infants and toddlers from birth to age three.

## Select Longitudinal Studies

Bureau of Labor Statistics -
National Longitudinal Survey of Children and Young Adults
This study follows the biological children of women who were enrolled in the National Longitudinal Survey of 1979. Mothers of the original cohort were born from 1957-64. Assessments of their children began in 1988 and continue be administered biennially. The Children and Young Adults portion of the study has interviewed 11,512 children who are the children of mothers in the original study. Among many things, the research collects birth and demographic data, cognitive ability, developmental information, behavioral concerns, information about home environments, details about child-parent interactions, and attitudes about schooling. The nature of the research allows connections between maternal-family behaviors and attitudes to be linked to child development and educational outcomes.

National Center for Education Statistics (NCES) Early Childhood Longitudinal Study
This program includes three longitudinal studies, including the Birth Cohort (ECLS-B), Kindergarten Class of 1998-99 (ECLS-K), and Kindergarten Class of 2010-11 (ECLS-K:2011). ECLS-B followed approximately 14,000 children born in 2001 from birth to kindergarten entry. The original Kindergarten Class study (ECLS-K) collected data from the same children at five times from kindergarten to eighth grade. Finally, ECLS-K:2011 collected data on approximately 22,000 children from diverse backgrounds from kindergarten through fifth grade. The Early Childhood Longitudinal Study program illuminates the importance of providing quality early care and educational experiences for developing school readiness, offers insight on the relationships between schools, families, and educational agencies that support children, and provides longitudinal data on children's experiences and growth during the school years.

## Final Thoughts

Without question, child outcomes are impacted by access to health care, educational opportunities, and high-quality learning environments. Stakeholders must keep these issues at the forefront of policy-making decisions regarding the development and education of young children. Some progress in improving child outcomes in rural areas has been noted in this report. In particular, growth of both Court Appointed Special Advocates/Guardian Ad Litem and school-located food programs are working to address adverse childhood experiences for rural children. Implementation of the Every Child Succeeds Act (ESSA) has occurred in all states, and some states report specific initiatives aimed at early childhood education. Finally, new technology is allowing rural teachers to receive instructional feedback remotely, creating new opportunities for professional development. These are heartening developments that may be used to further work throughout rural regions.

Despite examples of progress, rural children continue to experience significant challenges. We urge policymakers to shine a light on these ongoing issues and to pursue strategies that mitigate them. Rural children experience higher incidences of abuse, neglect, and trauma than other locales, have less access to educational opportunities, and are more likely to be living in poverty than children in non-rural settings. Rural children and their families often have limited access to health care, and rural areas are more likely to have problematic child care deserts. Retaining and recruiting teachers remains a pressing concern for most rural schools. Important suggestions for addressing this concern include requiring bachelor's degrees and pay equity for all preschool teachers and increasing funding for high-quality teachers in infant and toddler settings. Additionally, as a nation, we must advocate for initiatives that increase rural preschool enrollment numbers, encourage justice-oriented practices in rural classrooms, and work together to address current immigration policies that place some of

America's most vulnerable children at higher risk for poor child outcomes. Given these challenges, it is imperative that policies, practices, and funding are directed specifically to rural young children. Society as a whole benefits when
resources and advocacy efforts are directed toward the development and education of young children, and nearly 7 million of America's young children are growing up in rural areas. ${ }^{\text {clxvi }}$

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${ }^{i}$ The locale codes for a school district and for a school (campus or building) may be very different despite being next door to each other physically. A district may not be designated "rural" even though the school (campus or building) is. The locale code for the district is determined by where a plurality of the district's students attend school, whereas the school locale code is based on the mailing address of the school building. For example, West Virginia has county-wide school districts. Hancock County Schools, located in the panhandle, is designated "City: Small (13)" and is located in New Cumberland, WV. Weir High School, located in Weirton, WV (just 23 miles from the Pittsburgh, PA airport) and in the Hancock County School district is also designated "City: Small (13)." Yet Oak Glen High School, in New Cumberland, WV is designated "Rural: Fringe (41)" and is approximately 29 miles from the Pittsburgh, PA airport.
${ }^{\text {ii }}$ The NAEP results shown in the Educational Outcomes gauge can be found on the Nation's Report Card site (http://nces. ed.gov/nationsreportcard/), Census data on rural areas can be found on the American Community Survey site (https:// www.census.gov/programs-surveys/acs/), graduation data can be found on the Department of Education's EDFacts site (http://www2.ed.gov/about/inits/ed/edfacts/index.html), data on AP coursetaking and ACT/SAT test taking can be found on the Civil Rights Data Collection site (http://ocrdata.ed.gov/) and the rest of the data can be found on the Elementary/ Secondary information system site (http://nces.ed.gov/ccd/elsi/default.aspx?agree=0). These links were stable as of June 29, 2019.
${ }^{\text {iii }}$ Although we exclude districts with only charter schools, we do include districts that include charter schools or vocational schools alongside regular schools.
${ }^{\text {iv }}$ Gauge rankings are not calculated for states that have fewer than three of the five indicator rankings present. These instances are denoted with an asterisk and a clarifying note
${ }^{v}$ Priority rankings are not calculated for states that have fewer than four of the five indicator rankings present. These instances are denoted with an asterisk and a clarifying note.
${ }^{\text {vi }}$ Due to limitations with the mapping software, a state that is on the borderline between two gauge ranking categories may appear in one category on the state pages and in the other category on the gauge maps.
vii Hawaii is excluded from most of the indicators throughout this report because its organization as a single statewide district makes district-level data unavailable for rural communities.
viii The majority of this report is conducted at the district level, and so school inclusion or exclusion is based on the NCES locale classification of the entire district.
${ }^{\text {ix }}$ Documentation and further explanation about the School Neighborhood Poverty index can be accessed on the National Center for Education Statistics' section for Education Demographic and Geographic Estimates: https://nces.ed.gov/ programs/edge/Economic/NeighborhoodPoverty
${ }^{x}$ In calculating rural instructional expenditures per pupil, we used the most recent financial data (2014-15) and the most recent enrollment data (2016-17). A separate estimate could be obtained using 2014-15 data for both variables. We ran the data both ways and the impact on state rankings was negligible. Contact the lead author for the same-year calculations and rankings.
${ }^{\text {xi }}$ This indicator is not adjusted for geographic cost, which in the case of Alaska is significant. However, the teacher salary indicator is adjusted by the Comparable Wage Index For Teachers.
xii It is quite possible that the numbers for Alaska will change substantially in the near future due to major budget cuts that have been made recently.
xiii See, for example, Jimerson's (2006) synthesis on the opportunities afforded by small school size (https://eric.ed.gov/?id =ED497985). Gershenson and Langbein (2015) found no overall effect based on school size, but did find that larger schools were particularly disadvantageous for socioeconomically disadvantaged students and students with learning disabilities.
${ }^{\text {xiv }}$ Vermont's ratio of $\$ 14.00$ is dramatically higher than all other states (New Mexico is second highest at \$4.42). The extreme value is most possibly an artifact of the way data is reported relative to Vermont's state funding system, but other data and analyses suggest that state arguably has the most equitable system of school funding in the nation (thus, although the value might be exaggerated, the ranking is most likely correct).
${ }^{\text {xv }}$ Documentation and further explanation about the Comparable Wage Index For Teachers (CWIFT) can be accessed on the National Center for Education Statistics' section for Education Demographic and Geographic Estimates: https://nces. ed.gov/programs/edge/Economic/TeacherWage
${ }^{\text {xvi }}$ An issue long emphasized by the Rural Trust and others; see https://files.eric.ed.gov/fulltext/ED474248.pdf
xvii Documentation and further explanation about the Comparable Wage Index For Teachers (CWIFT) can be accessed on the National Center for Education Statistics' section for Education Demographic and Geographic Estimates: https://nces. ed.gov/programs/edge/Economic/TeacherWage
xviii Moreover, from a statistical perspective, these improvement indicators are prone to a distortion factor known as regression to the mean. The states which are at the bottom of the 4th grade performance ranking have more room to improve than do the states which are at the top.
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${ }^{\text {xxi }}$ See, for example, Jimerson's (2006) synthesis on the opportunities afforded by small school size (https://eric. ed.gov/?id=ED497985). Also, Johnson and Howley's (2015) discussion of assets associated with rural schools (https:// peabody.vanderbilt.edu/faculty/pje/pje_volume_90_issue_2_2015/johnson_howley.php).
xxii The 13th state, California, experienced some sampling irregularities that yielded a high standard error. Even with this added variability, it was in or near the top-priority quartile on Educational Outcomes in all three reports.
xxiii Whenever a range was provided, a point estimate was created by averaging graduation rates from every school that had a point estimate within that range. For example, if a school reported a graduation rate of $75-79 \%$, we took the average rate for all schools in the U.S. that had provided an exact rate between $75 \%$ and $79 \%$. Certainly, some of these point estimates were too high and others were too low, but our hypothesis was that these would roughly cancel each other out. We tested our hypothesis by using this method to calculate an average graduation rate for all locales for each state and comparing these averages with the known parameters released by the Department of Education. On average, our estimates were within one or two percentage points of the actual rates. In other words, there is still likely to be some error in our rates, but they appear to be the best possible estimates given the available data.
xxiv Districts who did not report AP coursework data were removed from the analysis; there were also rural districts who reported data but did not offer any AP courses-these districts were left in the analysis. The rates on this indicator may be inflated slightly by rural underclassmen passing AP courses.
${ }^{x x v}$ Districts who did not report AP coursework data were removed from the analysis; there were also rural districts who reported data but did not offer any AP courses-these districts were left in the analysis. The rates on this indicator may be inflated slightly by rural underclassmen passing AP courses.
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${ }^{\text {xxvii }}$ Districts who did not report data on taking the ACT/SAT were removed from the analysis; there were also rural districts who reported data but where no students took either test-these districts were left in the analysis. The rates on this indicator may be inflated slightly by rural underclassmen taking the ACT or SAT.
xxvii At the community college level, tests such as COMPASS and ACCUPLACER are also widely used. This indicator is a better proxy for 4 -year college readiness.
${ }^{\text {xxix }}$ It should be noted that there is a movement nationwide among postsecondary institutions to remove the ACT or SAT requirement for incoming students. These are known as "test optional" policies. https://www.nacacnet.org/globalassets/ documents/publications/research/defining-access-report-2018.pdf
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Percent Rural Schools
The number of public schools located in places classified as rural by the U.S. Census Bureau, expressed as a percentage of all public schools in the state.

Percent Small Rural Districts
The number of rural public school districts with an enrollment size below the national median for rural districts (494 students), expressed as a percentage
of the total number of public school districts in the state.


## Percent Rural Students

The number of students attending public schools located in districts classified as rural by the U.S. Census Bureau, expressed as a percentage of all public school students in the state.

Number of Rural Students

8,754









 9,897
$\qquad$




Rural Diversity Index
Given a randomly-chosen public school located in a rural district (weighted by school enrollment), and two randomly-chosen students within the school, this is the chance that the students will be of different races.


## Poverty Level in Rural School Communities

A "school community" is defined as the 25 closest Census-identified households with school-aged children to each school within a rural district. Percents represent the weighted incomes of these 25 households relative to their poverty line as determined by the Department of Health and Human Services.
(


$-3.29$

Percent Rural IEP (Individualized Education Plan) Students
The total number of students who are enrolled in rural districts and receive special education services, expressed as a percentage of all students enrolled in rural districts.
Source: U.S. Department of National Center for Education Common Core of Data, Public
School Universe, 2016-2017
 \%8

Percent Rural Household Mobility
The percentage of rural households with school-aged children who changed residences within the previous 12 months, per U.S. Census figures.
 American Community Survey, 2017 (1-year estimates)

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 Natio
Rural Instructional Expenditures per Pupil
Total current expenditures for instruction in rural school districts, divided by the total number of students enrolled in those school districts. dxvii



Ratio of Instructional to Transportation Expenditures
Ratio of total current expenditures for regular education instruction in rural districts to total current expenditures for pupil transportation in rural districts.


Source: U.S. Department of Education,
National Center for Education Statistics,


## $6.17 \square 25.89$


15.54


$\$ 25.89$

## Median Organizational Scale

The state median for the organizational scale indicator obtained by multiplying school enrollment by district enrollment. (Note: For simplification, the indicators were divided by 100.)

Common Core of Data, Public School Universe, 2016-2017

## $51 \square 79,133$



10K



号

State Revenue to Schools per Local Dollar
The number of dollars received by rural districts from state funds for each dollar generated by local funds.

Adjusted Rural Salary Expenditures per Instructional FTE
Total current expenditures for instructional salaries, divided by the total number of instructional full-time equivalent staff members, multiplied by the National Center for Education Statistics' respective Comparable Wage Index for Teachers for each rural district


## Rural NAEP Improvement (Grade 4 to Grade 8 Math)

The standardized score of the rural students in each state on the 8th grade National Assessment of Educational Progress math test minus the
standardized score of the rural students on the 4th grade NAEP math test. (Note: Means and standard deviations based on national-level data.)




 $\square^{-0.02}$



0.416


0



## Rural NAEP Improvement（Grade 4 to Grade 8 Reading）

The standardized score of the rural students in each state on the 8th grade National Assessment of Educational Progress reading test minus the


0.35

| 0.05 | 0.1 | 0.15 |
| :--- | :--- | :--- |




0.15
$-0.1$
0

O



15

$\stackrel{N}{0}$
0.25
$\stackrel{1}{1}$
$\div$
0.25
$-0.3$



Rural NAEP Poverty Disadvantage
The average standardized score for four National Assessment of Educational Progress tests (4th and 8th grade, math and reading) for rural students in poverty in a state
minus the same average for the state's rural students not in poverty. (Note: Standardized z-scores based on national mean and standard deviation for each test.)

0
$1 \cdot 0^{-}$
$-0.2$

Rural NAEP Poverty Disadvantage

Source: U.S. Department of
Education,
National Center for Education
Statistics,
National Assessment of
Educational Progress, 2017


## Rural Advantage for NAEP Performance

The average standardized score for four National Assessment of Educational Progress tests (4th and 8th grade, math and reading) for rural students in a state minus the same average for nonrural students in the state. (Note: Standardized $z$-scores based on national mean and standard deviation for each test.)

 National Assessment of Educational Progress, 2017
 -0.02
-0.02
-0.01
$\begin{array}{r}0.05 \\ -\quad-0.02 \\ \hline \text { - }\end{array}$




 $\boldsymbol{I}_{-0.01}^{-0.01}$


$-0.329 \square 0.383$
Estimated Graduation Rate of Rural Districts
The number of graduating seniors in rural school districts divided by the total number of students who started with the cohort four years earlier, adjusted
for transfer students.*


$88 \% \quad 90 \% \quad 94 \% \quad 96 \%$



\%98



states with many small rural districts. Refer to the narrative for a complete description of the methodology used to produce these

N

 $0.1 \%$
$0.1 \%$
Percent of Rural Juniors and Seniors in Dual Enrollment (Males)
The number of male high school juniors and seniors in rural districts who have enrolled in at least one dual enrollment (high school/post-secondary) course, expressed as a percentage of all male high school juniors and seniors enrolled in rural districts.


30\%


를

5\%

○ㅇ
 Z
Percent of Rural Juniors and Seniors in Dual Enrollment (Females)
The number of female high school juniors and seniors in rural districts who have enrolled in at least one dual enrollment (high school/post-secondary) course, expressed as a percentage of all female high school juniors and seniors enrolled in rural districts.

Percent of Rural Juniors and Seniors Passing an AP Exam
The number of high school juniors and seniors in rural districts who earned a score of 3,4 , or 5 on at least one AP exam, expressed as a percentage of all high school juniors and seniors enrolled in rural districts.



ALABAMA - Alabama is the nation's second highest priority rural state, with greater needs than the majority of states on all five gauges. Nearly half of Alabama's schools are located in rural areas, and one in three students attends school in a rural district. Over one in five of the state's school-aged rural children live in poverty, and the rural school communities are among the poorest in the country. Rural schools and districts are among the nation's largest, and instructional spending is lower than in all but five other states. NAEP performance is the third lowest in the U.S., but even more concerning is the relative lack of improvement in math and reading between grades 4 and 8 . Nine out of 10 students from rural districts graduate high school, but fewer have earned any college credit than their rural peers in
 most states.





AL

| GAUGE 4: Fair \| Serious | Critical | Urgent |
| :---: | :---: | :---: |
| Educational |  | 1 |
| Outcomes | AL | Rank* |
| Rural NAEP improvement (Grade 4 to Grade 8 math) | -0.286 | 2 |
| Rural NAEP improvement (Grade 4 to Grade 8 reading) | -0.129 | 7 |
| Rural NAEP performance (Grade 4 and Grade 8, math and reading) | -0.290 | 3 |
| Rural NAEP poverty disadvantage | -0.613 | 11 |
| Rural advantage for NAEP performance | -0.115 | 5 |


| GAUGE 5: Fair \| Serious | Critical | Urgent |
| :---: | :---: | :---: |
| College Readiness | 15 |  |
|  | AL | Rank* |
| Estimated graduation rate in rural districts | 90.1\% | 30 |
| Percent rural Juniors and Seniors in dual enrollment (males) | 10.7\% | 11 |
| Percent rural Juniors and Seniors in dual enrollment (females) | 12.5\% | 7 |
| Percent rural Juniors and Seniors passing at least one AP exam | 4.7\% | 15 |
| Percent rural Juniors and Seniors who took the ACT or SAT | 56.6\% | 37 |



* A rank of 1 is most crucial or most urgent.
**See full report for a detailed definition of each indicator.

ALASKA = Nearly six in 10 Alaska schools and a quarter of all students attending public schools are in a rural school district. Despite a relatively low percentage of students receiving special education services, Alaska's rural student population is more diverse than their counterparts in other states in terms of racial background, students in poverty, and geographic mobility. Even with rural instructional expenditures and salary expenditures that are among the highest in the U.S., Alaska is our fourth highest priority state with regard to college readiness indicators (including the nation's lowest graduation rate for rural students overall).

| GAUGE 1: Notable | Important | Very Important | Crucial |
| :---: | :---: | :---: | :---: |
|  |  | 14 |  |
| Importance |  | AK | Rank* |
| Percent rural schools |  | 59.3\% | 6 |
| Percent small rural districts |  | 71.4\% | 10 |
| Percent rural students |  | 25.1\% | 17 |
| Number of rural students |  | 33,237 | 44 |
| Percent state education funds to rural districts |  | 34.2\% | 13 |

Percent rural schools


Percent rural mobility


| GAUGE 2: Fair | Serious | Critical | Urgent |  |
| :---: | :---: | :---: | :---: | :---: |
| Student and Family Diversity |  | 14 |  |  |
|  |  |  | AK | Rank* |
| Rural diversity index |  |  | 31.7\% | 20 |
| Poverty level in rural school communities |  |  | 256\% | 21 |
| Percent rural IEP students |  |  | 14.2\% | 29 |
| Percent of rural school-aged children in poverty |  |  | 15.6\% | 20 |
| Percent rural mobility |  |  | 12.7\% | 8 |


| GAUGE 3: | Notable | Important |  |
| :--- | :---: | :---: | :---: |



| GAUGE 4: Fair Serious | Critical | Urgent |
| :---: | :---: | :---: |
| Educational |  | NA |
| Outcomes | AK | Rank* |
| Rural NAEP improvement (Grade 4 to Grade 8 math) | NA | NA |
| Rural NAEP improvement (Grade 4 to Grade 8 reading) | NA | NA |
| Rural NAEP performance (Grade 4 and Grade 8, math and reading) | NA | NA |
| Rural NAEP poverty disadvantage | NA | NA |
| Rural advantage for NAEP performance | NA | NA |


| GAUGE 5: Fair \| Serious | Critical | Urgent |
| :---: | :---: | :---: |
| College |  | 4 |
| Readiness | AK | Rank* |
| Estimated graduation rate in rural districts | 72.3\% | 1 |
| Percent rural Juniors and Seniors in dual enrollment (males) | 16.3\% | 21 |
| Percent rural Juniors and Seniors in dual enrollment (females) | 22.0\% | 18 |
| Percent rural Juniors and Seniors passing at least one AP exam | 4.7\% | 15 |
| Percent rural Juniors and Seniors who took the ACT or SAT | 46.2\% | 19 |

[^0]ARIZONA - Arizona's 51,000 rural students represent a small proportion of all public students in the state, but they are the nation's second most diverse student population. Rural school communities are poor, rural schoolaged children are poorer than in any state but New Mexico, and their families change residences at higher rates than in any state but Nevada. Spending on instruction is the nation's fifth lowest at nearly $\$ 1,500$ per pupil below the national average. Educational outcomes of rural students are low, especially relative to non-rural students in the state, although improvement from grades 4 to 8 in both math and reading is greater than in almost any other state. A fair amount of Arizona's rural students graduate with dual enrollment credit, but the state ranks far below the national median on all

PRIORITY RANKING
11 other measures of college readiness.


| GAUGE 3: Notable \| Important | Very Important | Crucial |
| :---: | :---: | :---: |
| Educational |  | 2 |
| Policy Context | AZ | Rank* |
| Rural instructional expenditures per pupil | \$4,917 | 5 |
| Ratio of instructional to transportation expenditures | \$8.01 | 7 |
| Median organizational scale ( x 100 ) | 712 | 40 |
| State revenue to schools per local dollar | \$0.88 | 14 |
| Rural adjusted salary expenditures per instructional FTE | \$61,890 | 10 |

Rural adjusted salary expenditures per instructional FTE


Rural NAEP performace
(Grade 4 and Grade 8, math and reading)



Estimated graduation rate in rural districts


* A rank of 1 is most crucial or most urgent.
**See full report for a detailed definition of each indicator.
96 | Why Rural Matters 2018-2019

ARKANSAS - Nearly 150,000 students (over three in 10) attend school in one of Arkansas's rural districts. This student population is characterized by high levels of residential instability and poverty, and only $\$ 5,500$ per pupil is designated for these students' instruction. Adjusted teacher salaries are $\$ 14,000$ below the national average; only Kansas pays their rural teachers less. Arkansas' rural students score low on standardized math and reading assessments, both in absolute terms as well as relative improvement between 4th and 8th grade, but the poverty achievement gap is narrower than in most states. Given these financial and educational struggles, it is noteworthy that 12 Arkansas's rural students score near or above the national median on all five of our measures of college readiness.

| GAUGE 1: Notable | Important | Very Important $\mid$ Crucial |  |
| :---: | :---: | :---: | :---: |
|  |  | 16 |  |
| Importance |  | AR | Rank* |
| Percent rural schools |  | 46.4\% | 14 |
| Percent small rural districts |  | 20.0\% | 33 |
| Percent rural students |  | 30.7\% | 13 |
| Number of rural students |  | 146,974 | 21 |
| Percent state education funds to rural districts |  | 32.0\% | 14 |

Percent rural schools


Percent of rural school-aged children in poverty

| GAUGE 2: Fair | Serious | Critical | Urgent |
| :---: | :---: | :---: | :---: |
| Student and Family Diversity |  | 10 |  |
|  |  | AR | Rank* |
| Rural diversity index |  | 29.0\% | 22 |
| Poverty level in rural school communities |  | 225\% | 10 |
| Percent rural IEP students |  | 13.3\% | 35 |
| Percent of rural school-aged children in poverty |  | 19.5\% | 10 |
| Percent rural mobility |  | 11.5\% | 15 |

Rural adjusted salary expenditures per instructional FTE


Rural NAEP performace
(Grade 4 and Grade 8, math and reading)


| GAUGE 4: Fair \| Serious | Critical | Urgent |
| :---: | :---: | :---: |
| Educational Outcomes | 14 |  |
|  | AR | Rank* |
| Rural NAEP improvement (Grade 4 to Grade 8 math) | -0.132 | 12 |
| Rural NAEP improvement (Grade 4 to Grade 8 reading) | -0.064 | 14 |
| Rural NAEP performance (Grade 4 and Grade 8, math and reading) | -0.173 | 10 |
| Rural NAEP poverty disadvantage | -0.457 | 40 |
| Rural advantage for NAEP performance | -0.012 | 19 |


| GAUGE 5: | Fair | Serious | Critical | Urgent |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| College |  |  |  |  |  |

[^1]Percent rural Juniors and Seniors who took the ACT or SAT


AR


US

CALIFORNIA - California has one of the nation's lowest percentages of rural schools and students, but one of the highest percentages of small rural districts and the 14th largest absolute rural student enrollment. The state's rural districts have some of the most racially diverse schools in the nation, and one in eight students has changed residences in the past year. Per pupil instructional spending in rural school districts is nearly $\$ 1,000$ less than the national average, and rural NAEP performance is consistently among the nation's lowest. On a positive note, there is much academic improvement relative to other states between 4th and 8th grade. College readiness indicators are a

PRIORITY
RANKING
27 mixed bag, with two measures that are above the national median (graduation rate and rural AP exam pass rates) and three others among the lowest in the U.S. (dual enrollment coursework for both males and females and rural ACT/ SAT participation rate).


| GAUGE 2: Fair | Serious | Critical | Urgent |  |
| :---: | :---: | :---: | :---: | :---: |
| Student and <br> Family Diversity |  |  |  |  |
|  |  |  | CA | Rank* |
| Rural diversity index |  |  | 44.5\% | 11 |
| Poverty level in rural school communities |  |  | 264\% | 23 |
| Percent rural IEP students |  |  | 11.2\% | 45 |
| Percent of rural school-aged children in poverty |  |  | 17.8\% | 16 |
| Percent rural mobility |  |  | 12.3\% | 10 |


| GAUGE 3: |  | Notable |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Educational Policy Context |  |  |  |  |
| Rural instructional expenditures per pupil |  |  |  |  |
| Ratio of instructional to transportation expenditur |  |  |  |  |
| Median organizational scale (x 100) |  |  |  |  |
| State revenue to schools per local dollar |  |  |  |  |
| Rural adjusted salary expenditures per instruction |  |  |  |  |
| Rural advantage for NAEP performace |  |  |  |  |
| CA | $-0.146$ | 0.018 |  |  |
| us |  |  |  |  |
|  | -0.25 | 0 | 0.25 | 0.5 |


| GAUGE 4: Fair \| Serious | Critical | Urgent |
| :---: | :---: | :---: |
| Educational $\square 25$ | 25 |  |
| Outcomes | CA | Rank* |
| Rural NAEP improvement (Grade 4 to Grade 8 math) | 0.139 | 42 |
| Rural NAEP improvement (Grade 4 to Grade 8 reading) | 0.183 | 46 |
| Rural NAEP performance (Grade 4 and Grade 8, math and reading) | -0.268 | 5 |
| Rural NAEP poverty disadvantage | NA | NA |
| Rural advantage for NAEP performance | -0.146 | 4 |


| GAUGE 5: Fair \| Serious | Critical | Urgent |  |
| :---: | :---: | :---: | :---: |
| College |  |  | 3 |
| Readiness |  | CA | Rank* |
| Estimated graduation rate in rural districts |  | 89.5\% | 28 |
| Percent rural Juniors and Seniors in dual enrollment (males) |  | 4.3\% | 3 |
| Percent rural Juniors and Seniors in dual enrollment (females) |  | 5.7\% | 3 |
| Percent rural Juniors and Seniors passing at least one AP exam |  | 10.0\% | 32 |
| Percent rural Juniors and Seniors who took the ACT or SAT |  | 21.4\% | 3 |



* A rank of 1 is most crucial or most urgent.
**See full report for a detailed definition of each indicator.
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COLORADO - Colorado schools and districts are smaller than in most other states, with three out of four rural districts enrolling fewer students than the national median for rural districts. Colorado's 50,000 rural students tend to have racially diverse classrooms with high rates of student mobility (i.e., households changing residences). Although schools and districts are small and transportation is relatively inexpensive, the rural education policy context is also characterized by low teacher salaries, low per pupil instructional spending, and inequitable funding. Most of Colorado's educational outcomes are strong, with the exception of one of the largest academic gaps in the nation between the rural poor and the rest of the rural students. The state's rural students are on par with their peers 31 on most measures of college readiness aside from their low high school graduation rate.

| GAUGE 1: Notable | Important | Very Important | Crucial |
| :---: | :---: | :---: | :---: |
| 38 |  |  |  |
| Importance |  |  | CO | Rank* |
| Percent rural schools |  | 24.0\% | 35 |
| Percent small rural districts |  | 74.5\% | 7 |
| Percent rural students |  | 5.8\% | 43 |
| Number of rural students |  | 50,945 | 38 |
| Percent state education funds to rural districts |  | 6.6\% | 42 |

Percent small rural districts


Percent of rural school-aged
children in poverty




| GAUGE 5: Fair Serious | Critical | Urgent |
| :---: | :---: | :---: |
| 25 |  |  |
| Readiness | CO | Rank* |
| Estimated graduation rate in rural districts | 84.9\% | 10 |
| Percent rural Juniors and Seniors in dual enrollment (males) | 22.3\% | 31 |
| Percent rural Juniors and Seniors in dual enrollment (females) | 31.6\% | 36 |
| Percent rural Juniors and Seniors passing at least one AP exam | 5.9\% | 22 |
| Percent rural Juniors and Seniors who took the ACT or SAT | 46.9\% | 22 |



* A rank of 1 is most crucial or most urgent.
**See full report for a detailed definition of each indicator.

CONNECT/CUT - Connecticut's rural districts constitute only one in seven of the state's schools and serve just under 55,000 students. Rural household mobility is lower than in any other state, and only Massachusetts has a lower rate of poverty among its rural school-aged children. Teacher salaries and instructional expenditures are very high, but state funding support relative to local support is weak. NAEP performance among rural Connecticut students is among the nation's highest, but gains between grades 4 and 8 are not as strong as in the rural portions of most other states. Rural college readiness measures are also consistently strong, with the highest AP exam pass rate of any state in the U.S.

| GAUGE 1: Notable | Important | Very Important | Crucial |
| :---: | :---: | :---: | :---: |
| 41 |  |  |  |
| Importance |  | CT | Rank* |
| Percent rural schools |  | 14.1\% | 45 |
| Percent small rural districts |  | 50.8\% | 21 |
| Percent rural students |  | 11.0\% | 36 |
| Number of rural students |  | 54,996 | 35 |
| Percent state education funds to rural districts |  | 9.2\% | 37 |



Poverty level in rural school communities


| GAUGE 2: | Fair | Serious | Critical |  |
| :--- | :---: | :---: | :---: | :---: |




${ }^{*}$ A rank of 1 is most crucial or most urgent.
**See full report for a detailed definition of each indicator.

DELAMARE - Delaware is one of the least rural states in the country, but the 16,000+ students who do attend school in a rural district do so with the most racially diverse set of peers of any state in the U.S. Despite low child poverty rates, high teacher salaries, and above-average instructional spending, Delaware's rural schools tend to be located in communities that are poorer than average. NAEP scores are high overall, but the gains in math and reading between grades 4 and 8 are less than what rural students see nationwide. Delaware's college readiness measures are all near or above the national median, with notably strong rates of ACT/SAT participation among

| GAUGE 1: Notable | Important | Very Important | Crucial |
| :---: | :---: | :---: | :---: |
| 45 |  |  |  |
| Importance |  | DE | Rank* |
| Percent rural schools |  | 16.6\% | 42 |
| Percent small rural districts |  | 0.0\% | 43 |
| Percent rural students |  | 13.6\% | 33 |
| Number of rural students |  | 16,557 | 47 |
| Percent state education funds to rural districts |  | 15.7\% | 33 |

Percent rural schools



| GAUGE 2: | Fair | Serious | Critical |
| :--- | :---: | :---: | :---: |



Rural NAEP improvement (Grade 4 to Grade 8 reading)


| GAUGE 4: | Fair | Serious | Critical |
| :--- | :---: | :---: | :---: |


| GAUGE 5: | Fair | Serious | Critical |  |
| :--- | :---: | :---: | :---: | :---: |

[^2]FLORIDA - Though not one of the most rural states, Florida still has over 150,000 students attending schools in rural districts. Nearly one in five of Florida's school-aged rural children lives in poverty, and the rural schools are among the most racially diverse of any state in the nation. Florida's rural teachers face challenging conditions, with extremely low salaries, low levels of instructional expenditures, and classrooms that are in a constant state of transition given that more than one in eight students has moved residences in the past year. The urgent situation regarding educational outcomes does not center around overall scores, but rather the fact that, in both math and reading, Florida's rural students' performance falls dramatically between grade 4 and grade 8 relative to rural students throughout the U.S. In the high school years, students acquire AP credit at high rates, but rarely take advantage of dual enrollment opportunities, and one in five rural Florida students fails to graduate from high school in four years.



Estimated graduation rate in rural districts


* A rank of 1 is most crucial or most urgent.
**See full report for a detailed definition of each indicator.
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GEORGIA - Over the past three years, the rural student population in Georgia has swelled by nearly 90,000 students to a total approaching half a million students (although this is mostly due to the reclassification of district locales). Rural schools tend to be extremely racially diverse, and poverty is prevalent among students' households and school communities. Schools and districts are large, and instructional spending per pupil is well below the U.S. average. NAEP performance in rural areas is low (well below the performance in non-rural areas), and the wide academic poverty gap in Georgia's rural schools ranks it among the lowest 10 states in the nation. But more than any other gauge, it is the dire college readiness rankings that drive Georgia's overall priority ranking as the seventh most serious situation for rural education in the U.S.


| GAUGE 2: Fair | Serious | Critical | Urgent |
| :---: | :---: | :---: | :---: |
| Student and Family Diversity | 13 |  |  |
|  |  | GA | Rank* |
| Rural diversity index |  | 49.5\% | 5 |
| Poverty level in rural school communities |  | 237\% | 15 |
| Percent rural IEP students |  | 12.8\% | 39 |
| Percent of rural school-aged children in poverty |  | 18.1\% | 14 |
| Percent rural mobility |  | 10.8\% | 23 |


| GAUGE 3: Notable \| Important | Very Important | Crucial |
| :---: | :---: | :---: |
| Educational Policy Context | 15 |  |
|  | GA | Rank* |
| Rural instructional expenditures per pupil | \$5,681 | 18 |
| Ratio of instructional to transportation expenditures | \$12.17 | 36 |
| Median organizational scale (x 100) | 36,326 | 3 |
| State revenue to schools per local dollar | \$1.31 | 25 |
| Rural adjusted salary expenditures per instructional FTE | \$71,035 | 23 |



Rural NAEP poverty disadvantage


| GAUGE 4: Fair \| Serious | Critical | Urgent |
| :---: | :---: | :---: |
| Educational Outcomes | 16 |  |
|  | GA | Rank* |
| Rural NAEP improvement (Grade 4 to Grade 8 math) | 0.154 | 45 |
| Rural NAEP improvement (Grade 4 to Grade 8 reading) | 0.007 | 23 |
| Rural NAEP performance (Grade 4 and Grade 8, math and reading) | -0.072 | 13 |
| Rural NAEP poverty disadvantage | -0.627 | 8 |
| Rural advantage for NAEP performance | -0.063 | 14 |


| GAUGE 5: Fair \| Serious | Critical | Urgent |
| :---: | :---: | :---: |
| College Readiness |  | 7 |
|  | GA | Rank* |
| Estimated graduation rate in rural districts | 85.9\% | 14 |
| Percent rural Juniors and Seniors in dual enrollment (males) | 9.4\% | 9 |
| Percent rural Juniors and Seniors in dual enrollment (females) | 14.9\% | 11 |
| Percent rural Juniors and Seniors passing at least one AP exam | 12.4\% | 38 |
| Percent rural Juniors and Seniors who took the ACT or SAT | 41.2\% | 16 |

Percent rural Juniors and Seniors in dual enrollment (males)


## * A rank of 1 is most crucial or most urgent.

**See full report for a detailed definition of each indicator.

HAWA】 - Because Hawaii comprises a single school district (which is not categorized as rural), there is no data available on our district-level indicators. However, the information that is available on the other indicators is presented below. Nearly one in six of Hawaii's schools are located in rural areas and $18 \%$ of school-aged children NA

| GAUGE 1: Notable | Important | Very Important | Crucial |
| :---: | :---: | :---: | :---: |
|  |  |  | NA |
| Importance |  | HI | Rank* |
| Percent rural schools |  | 15.2\% | 44 |
| Percent small rural districts |  | NA | NA |
| Percent rural students |  | NA | NA |
| Number of rural students |  | NA | NA |
| Percent state education funds to rural districts |  | NA | NA |

Percent rural schools


Percent of rural school-aged
children in poverty


| GAUGE 2: | Fair | Serious | Critical |
| :--- | :---: | :---: | :---: |
|  | Urgent |  |  |
| Student and <br> Family Diversity |  | NA |  |
| Rural diversity index | NA | Rank* |  |
| Poverty level in rural school communities | NA | NA |  |
| Percent rural IEP students | NA | NA |  |
| Percent of rural school-aged children in poverty | $18.0 \%$ | 15 |  |
| Percent rural mobility | NA | NA |  |




| GAUGE 5: Fair Serious | Critical | Urgent |
| :---: | :---: | :---: |
| College |  | NA |
| Readiness | HI | Rank* |
| Estimated graduation rate in rural districts | NA | NA |
| Percent rural Juniors and Seniors in dual enrollment (males) | NA | NA |
| Percent rural Juniors and Seniors in dual enrollment (females) | NA | NA |
| Percent rural Juniors and Seniors passing at least one AP exam | NA | NA |
| Percent rural Juniors and Seniors who took the ACT or SAT | NA | NA |

* A rank of 1 is most crucial or most urgent.
**See full report for a detailed definition of each indicator.

IDAHO - Four in 10 of Idaho's public schools are located in rural communities, and nearly one in four students attend a school located in a rural district. These rural districts are a mixed bag in terms of the diversity of their student population; rural school communities tend to be poor and a large number of students' families are in residential transition, but relatively few students qualify for specialized educational instruction. Although funding is relatively equitable, teacher salaries are low. Not only is instructional spending per rural pupil the lowest in the nation, but over the past three years, the per pupil spending has decreased by $\$ 200$ while at the same time increasing by $\$ 300$ across

PRIORITY
RANKING
20 the rest of the nation. Idaho is in an urgent situation in terms of educational outcomes, ranking among the lowest 10 states on three of our five indicators. Nearly one in six students in the rural districts fails to graduate, although a relatively large portion of the student population earns college credits before graduating high school.


| GAUGE 2: Fair | Serious | Critical | Urgent |  |
| :---: | :---: | :---: | :---: | :---: |
| Student and |  | 17 |  |  |
| Family Diversity |  |  | ID | Rank* |
| Rural diversity index |  |  | 31.1\% | 21 |
| Poverty level in rural school communities |  |  | 215\% | 7 |
| Percent rural IEP students |  |  | 10.6\% | 46 |
| Percent of rural school-aged children in poverty |  |  | 13.9\% | 24 |
| Percent rural mobility |  |  | 13.2\% | 5 |


| GAUGE 3: Notable Important | Very Important \| | Crucial |
| :---: | :---: | :---: |
| Educational Policy Context | 17 |  |
|  | ID | Rank* |
| Rural instructional expenditures per pupil | \$4,118 | 1 |
| Ratio of instructional to transportation expenditures | \$10.18 | 21 |
| Median organizational scale (x 100) | 1,572 | 27 |
| State revenue to schools per local dollar | \$2.96 | 45 |
| Rural adjusted salary expenditures per instructional FTE | \$63,293 | 13 |

Rural instructional expenditures per pupil


Rural NAEP improvement (Grade 4 to Grade 8 math)


| GAUGE 4: Fair \| Serious | Critical | Urgent |
| :---: | :---: | :---: |
| Educational Outcomes | 11 |  |
|  | ID | Rank* |
| Rural NAEP improvement (Grade 4 to Grade 8 math) | -0.173 | 9 |
| Rural NAEP improvement (Grade 4 to Grade 8 reading) | 0.075 | 35 |
| Rural NAEP performance (Grade 4 and Grade 8, math and reading) | 0.002 | 21 |
| Rural NAEP poverty disadvantage | -0.617 | 10 |
| Rural advantage for NAEP performance | -0.083 | 9 |


| GAUGE 5: | Fair | Serious | Critical | । | Urgent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| College Readiness | 43 |  |  |  |  |
|  |  |  |  | ID | Rank* |
| Estimated graduation rate in rural districts |  |  |  | 85.5\% | 13 |
| Percent rural Juniors and Seniors in dual enrollment (males) |  |  |  | 46.3\% | 49 |
| Percent rural Juniors and Seniors in dual enrollment (females) |  |  |  | 54.5\% | 49 |
| Percent rural Juniors and Seniors passing at least one AP exam |  |  |  | 5.6\% | 21 |
| Percent rural Juniors and Seniors who took the ACT or SAT |  |  |  | 61.7\% | 42 |

Estimated graduation rate in rural districts


ID


## * A rank of 1 is most crucial or most urgent.

**See full report for a detailed definition of each indicator.
\|LㄴNO|S - One in five of Illinois' schools is located in a rural area, but students in rural districts make up only one in eleven public school students in the state. The state's rural student population is characterized by low racial diversity, low poverty rates, and stable residences; there is however a high rate of students qualifying for individualized education services. It is crucial that Illinois' rural education policy context receives attention with high transportation costs, inequitable funding, and adjusted teacher salaries that are $\$ 7,000$ lower than the national average for rural districts. Aside from a poverty gap slightly wider than the national median for rural districts, educational outcomes are in good shape relative to the rest of the country. Nine in 10 Illinois students who begin 33 high school in a rural district graduate within four years.



## State revenue to schools per local dollar



IL

Rural NAEP improvement (Grade 4 to Grade 8 math)

| GAUGE 4: | Fair | Serious | Critical |  |  | Urgent |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Educational | 42 |  |  |  |  |  |
| Outcomes |  | IL | Rank* |  |  |  |
| Rural NAEP improvement (Grade 4 to Grade 8 math) | 0.149 | 43 |  |  |  |  |
| Rural NAEP improvement (Grade 4 to Grade 8 reading) | 0.045 | 31 |  |  |  |  |
| Rural NAEP performance (Grade 4 and Grade 8, math and reading) | 0.092 | 29 |  |  |  |  |
| Rural NAEP poverty disadvantage | -0.548 | 23 |  |  |  |  |
| Rural advantage for NAEP performance | 0.104 | 39 |  |  |  |  |


| GAUGE 5: | Fair | Serious | Critical | Urgent |
| :--- | :---: | :---: | :---: | :---: |
| College | 29 |  |  |  |
| Readiness |  | IL | Rank* |  |
| Estimated graduation rate in rural districts | $89.2 \%$ | 26 |  |  |
| Percent rural Juniors and Seniors in dual enrollment (males) | $28.8 \%$ | 40 |  |  |
| Percent rural Juniors and Seniors in dual enrollment (females) | $31.6 \%$ | 36 |  |  |
| Percent rural Juniors and Seniors passing at least one AP exam | $5.5 \%$ | 20 |  |  |
| Percent rural Juniors and Seniors who took the ACT or SAT | $36.2 \%$ | 7 |  |  |

Percent rural Juniors and Seniors who took the ACT or SAT


IL


US

* A rank of 1 is most crucial or most urgent.
**See full report for a detailed definition of each indicator.
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IND|ANA - Indiana has one of the nation's top 10 largest absolute rural student populations with nearly one quarter of a million students enrolled in schools located in a rural district. These schools tend to be racially homogenous and located in school communities where household incomes surpass the national average. One in six rural students qualifies for specialized education services, but only one in 12 has changed residences within the past year. Transportation costs are high relative to per pupil instructional expenditures, which are among the lowest in the nation. Rural NAEP performance is strong overall, but the increase between grade 4 and grade 8 performance is not as pronounced as in other states. Only four in 10 of Indiana's rural juniors and seniors take the ACT or SAT each year, but they rank well otherwise on our measures of college readiness.

| GAUGE 1: Notable | Important | Very Important | Crucial |
| :---: | :---: | :---: | :---: |
|  |  | 22 |  |
| Importance |  | IN | Rank* |
| Percent rural schools |  | 36.9\% | 23 |
| Percent small rural districts |  | 3.3\% | 39 |
| Percent rural students |  | 24.6\% | 18 |
| Number of rural students |  | 247,413 | 10 |
| Percent state education funds to rural districts |  | 24.7\% | 19 |


|  | Number of rural students |  |
| :---: | :---: | :---: |
| IN |  | 247,413 |
| median | 95,965 |  |




Rural NAEP improvement (Grade 4 to Grade 8 math)


| GAUGE 4: Fair Serious | Critical | Urgent |
| :---: | :---: | :---: |
| 27 |  |  |
| Outcomes | IN | Rank* |
| Rural NAEP improvement (Grade 4 to Grade 8 math) | -0.142 | 11 |
| Rural NAEP improvement (Grade 4 to Grade 8 reading) | -0.019 | 16 |
| Rural NAEP performance (Grade 4 and Grade 8, math and reading) | 0.214 | 40 |
| Rural NAEP poverty disadvantage | -0.511 | 32 |
| Rural advantage for NAEP performance | 0.052 | 26 |


Percent rural Juniors and Seniors who took the ACT or SAT


IN

[^3]10WA - Half of Iowa's schools are located in rural districts, and these schools serve nearly one in three of the state's public school students. Iowa's rural students and families are less diverse than the national median. Funding is relatively inequitable, but instructional expenditures and teacher salaries are on par with the rest of the country's rural districts. The most alarming indicator for rural education in this state is the academic performance gap between the state's rural poor and their non-poor rural peers - a gap which is larger in Iowa than in the majority of the other states. In preparing for college, Iowa's rural students are much more likely to take dual enrollment courses than their rural counterparts in other states, but less likely to pass at least one AP exam.

| GAUGE 1: Notable | Important | Very Important $\mid$ Crucial |  |
| :---: | :---: | :---: | :---: |
|  |  | 10 |  |
| Importance |  | IA | Rank* |
| Percent rural schools |  | 50.3\% | 11 |
| Percent small rural districts |  | 37.3\% | 28 |
| Percent rural students |  | 32.3\% | 11 |
| Number of rural students |  | \$164,831 | 18 |
| Percent state education funds to rural districts |  | 30.6\% | 16 |

Percent rural schools


IA

Percent of rural school-aged children in poverty


IA


US

| GAUGE 2: Fair | Serious | Critical | Urgent |  |
| :---: | :---: | :---: | :---: | :---: |
| Student and 49 |  |  |  |  |
| Family Diversity |  |  |  | IA | Rank* |
| Rural diversity index |  |  | 16.7\% | 41 |
| Poverty level in rural school communities |  |  | 300\% | 39 |
| Percent rural IEP students |  |  | 12.0\% | 43 |
| Percent of rural school-aged children in poverty |  |  | 7.6\% | 46 |
| Percent rural mobility |  |  | 9.1\% | 37 |

State revenue to schools per local dollar


Rural NAEP poverty disadvantage


| GAUGE 4: | Fair | Serious | Critical | Urgent |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Educational <br> Outcomes | 32 |  |  |  |  |
| Rural NAEP improvement (Grade 4 to Grade 8 math) | IA | Rank* |  |  |  |
| Rural NAEP improvement (Grade 4 to Grade 8 reading) | -0.049 | 24 |  |  |  |
| Rural NAEP performance (Grade 4 and Grade 8, math and reading) | 0.085 | 37 |  |  |  |
| Rural NAEP poverty disadvantage | 0.097 | 31 |  |  |  |
| Rural advantage for NAEP performance | -0.564 | 19 |  |  |  |


| GAUGE 5: | Fair | Critical |  |  |
| :--- | :---: | :---: | :---: | :---: |



* A rank of 1 is most crucial or most urgent.
**See full report for a detailed definition of each indicator.

KANSAS - Nearly half of Kansas' schools are situated in a rural area, and over 110,000 students attend school in a rural district. Within these districts, one in six students qualifies for specialized education services and one in nine has changed residences over the past year. Rural students' households and school communities are slightly wealthier than in the rest of the rural U.S., but adjusted teacher salaries are the lowest in the nation. Educational outcomes and measures of college readiness are all near or above the national median, except that fewer than one in 50 juniors and seniors in rural Kansas passes an AP exam.


Percent rural mobility




Rural adjusted salary expenditures per instructional FTE


Rural NAEP improvement (Grade 4 to Grade 8 math)



Percent rural Juniors and Seniors passing at least one AP exam


* A rank of 1 is most crucial or most urgent.
${ }^{* *}$ See full report for a detailed definition of each indicator.

KENTUCKY - With one in three of Kentucky's students attending school in a rural area, we rate the state's rural population as being of crucial importance to the overall educational health of the state. Rural enrollments are characterized by high rates of poverty, racial homogeneity, residential mobility, and students qualifying for special education services. The educational policy context does little to help, with large schools and districts, high transportation costs, and low levels of instructional spending; however, teacher salaries are reasonable compared to wages of other professions in rural areas. Educational outcomes paint an urgent picture for the rural districts, with

PRIORITY
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12 students not only performing poorly overall on the NAEP assessments, but also showing less improvement between grades 4 and 8 than their rural peers in other states. Despite these concerns, the state ranks as moderately strong on measures of college readiness.




* A rank of 1 is most crucial or most urgent.
**See full report for a detailed definition of each indicator.
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LOUISIANA - Louisiana has a rural student population of over 92,000 - one in seven of all students attending a public school. These students attend schools with high levels of racial diversity in relatively poor communities. Over one in five school-aged rural children live in poverty, and the educational policy context is worse in only three other states in the country. Educational outcomes are also urgently low, with a wide poverty gap and poor NAEP performance. Only one in 50 rural juniors and seniors has passed an AP exam, and the graduation rate of $86 \%$ is below the national average.

| GAUGE 1: | Notable | Important | Very Important |  |
| :--- | :---: | :---: | :---: | :---: |

Percent rural students


Rural diversity index


| GAUGE 2: Fair | Serious | Critical | Urgent |  |
| :---: | :---: | :---: | :---: | :---: |
| Student and Family Diversity |  |  | 8 |  |
|  |  |  | LA | Rank* |
| Rural diversity index |  |  | 48.1\% | 7 |
| Poverty level in rural school communities |  |  | 212\% | 5 |
| Percent rural IEP students |  |  | 12.4\% | 41 |
| Percent of rural school-aged children in poverty |  |  | 22.9\% | 4 |
| Percent rural mobility |  |  | 10.6\% | 26 |


| GAUGE 3: Notable \|mportant | Very Important \| | Crucial |
| :---: | :---: | :---: |
| Educational |  | 4 |
| Policy Context | LA | Rank* |
| Rural instructional expenditures per pupil | \$6,327 | 25 |
| Ratio of instructional to transportation expenditures | \$7.94 | 5 |
| Median organizational scale (x 100) | 16,045 | 10 |
| State revenue to schools per local dollar | \$1.34 | 26 |
| Rural adjusted salary expenditures per instructional FTE | \$65,698 | 15 |

Ratio of instructional to transportation expenditures


Rural NAEP improvement (Grade 4 to Grade 8 math)


| GAUGE 4: | Fair | Serious | Critical | Urgent |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Educational <br> Outcomes |  | $\mathbf{5}$ |  |  |  |
| Rural NAEP improvement (Grade 4 to Grade 8 math) | -0.275 | 3 |  |  |  |
| Rural NAEP improvement (Grade 4 to Grade 8 reading) | -0.141 | 4 |  |  |  |
| Rural NAEP performance (Grade 4 and Grade 8, math and reading) | -0.217 | 6 |  |  |  |
| Rural NAEP poverty disadvantage | -0.565 | 18 |  |  |  |
| Rural advantage for NAEP performance | 0.108 | 40 |  |  |  |


| GAUGE 5: Fair Serious | Critical | Urgent |
| :---: | :---: | :---: |
| College | 2 |  |
| Readiness | LA | Rank* |
| Estimated graduation rate in rural districts | 86.0\% | 15 |
| Percent rural Juniors and Seniors in dual enrollment (males) | 22.9\% | 32 |
| Percent rural Juniors and Seniors in dual enrollment (females) | 29.6\% | 31 |
| Percent rural Juniors and Seniors passing at least one AP exam | 2.2\% | 5 |
| Percent rural Juniors and Seniors who took the ACT or SAT | 50.7\% | 28 |

[^4]MAINE - Maine ranks highest in the nation for rural importance, with two of three schools and more than half of its students in rural communities. Seven of 10 rural districts report enrollments below the national median, and no state spends a higher portion of its state education budget on rural districts. Maine serves a large percentage of rural students with special educational needs, and the schools are the most racially homogenous in the country. Relatively high transportation costs and inequitable funding mark the otherwise favorable policy context. Educational outcomes are high compared to the U.S., but low compared to the rest of the New England states. With one in eight rural students failing to graduate from high school and few students earning dual enrollment credit, we rate the state as being in a critical situation in terms of college readiness.

| GAUGE 1: Notable | Important | Very Important | Crucial |
| :---: | :---: | :---: | :---: |
|  |  |  | 1 |
| Importance |  | ME | Rank* |
| Percent rural schools |  | 67.5\% | 5 |
| Percent small rural districts |  | 72.1\% | 9 |
| Percent rural students |  | 51.6\% | 2 |
| Number of rural students |  | 91,944 | 27 |
| Percent state education funds to rural districts |  | 53.0\% | 1 |

Percent rural schools


ME

us




## State revenue to schools per local dollar




| GAUGE 5: Fair Serious | Critical | Urgent |
| :---: | :---: | :---: |
| College Readiness | 15 |  |
|  | ME | Rank* |
| Estimated graduation rate in rural districts | 87.4\% | 19 |
| Percent rural Juniors and Seniors in dual enrollment (males) | 8.0\% | 5 |
| Percent rural Juniors and Seniors in dual enrollment (females) | 12.0\% | 6 |
| Percent rural Juniors and Seniors passing at least one AP exam | 15.4\% | 41 |
| Percent rural Juniors and Seniors who took the ACT or SAT | 50.9\% | 29 |

## * A rank of 1 is most crucial or most urgent. <br> **See full report for a detailed definition of each indicator.

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MARYLAND - Although only one in six schools is located in a rural area, Maryland still has a sizable population of 62,000 rural students. The state's rural schools are so diverse that, if you were to choose two random students from a rural school, there would be almost a $50 \%$ chance that the students would be of different racial/ethnic backgrounds. Most striking in the educational policy context are the extremely large rural schools and districts, larger than anywhere else in the country. Maryland's educational outcomes are favorable overall, but the performance gap between rural students in poverty and those who are not is the widest in the U.S. Only four in 10 of rural high school juniors and seniors take the ACT or SAT each year, and students take dual enrollment coursework at a rate below the national average, but only one in 12 rural students fails to graduate from high school within four years.


Percent rural schools


Rural diversity index


| GAUGE 2: Fair | Serious | Critical | Urgent |  |
| :---: | :---: | :---: | :---: | :---: |
| Student and 40 |  |  |  |  |
| Family Diversity |  |  |  | MD | Rank* |
| Rural diversity index |  |  | 49.0\% | 6 |
| Poverty level in rural school communities |  |  | 391\% | 45 |
| Percent rural IEP students |  |  | 11.4\% | 44 |
| Percent of rural school-aged children in poverty |  |  | 8.3\% | 42 |
| Percent rural mobility |  |  | 10.1\% | 30 |


| GAUGE 3: Notable \| Important | Very Important | Crucial |
| :---: | :---: | :---: |
| Educational | 20 |  |
| Policy Context | MD | Rank* |
| Rural instructional expenditures per pupil | \$7,972 | 39 |
| Ratio of instructional to transportation expenditures | \$9.96 | 19 |
| Median organizational scale (x 100) | 79,133 | 1 |
| State revenue to schools per local dollar | \$1.09 | 19 |
| Rural adjusted salary expenditures per instructional FTE | \$75,221 | 30 |

State revenue to schools per local dollar


Rural NAEP poverty disadvantage



| GAUGE 5: | Fair | Serious | Critica |  | gent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| College Readiness |  | 31 |  | MD | Rank* |
|  |  |  |  |  |  |
| Estimated graduation rate in rural districts |  |  |  | 91.7\% | 35 |
| Percent rural Juniors and Seniors in dual enrollment (males) |  |  |  | 16.8\% | 22 |
| Percent rural Juniors and Seniors in dual enrollment (females) |  |  |  | 24.1\% | 24 |
| Percent rural Juniors and Seniors passing at least one AP exam |  |  |  | 22.9\% | 47 |
| Percent rural Juniors and Seniors who took the ACT or SAT |  |  |  | 39.3\% | 10 |

Percent rural Juniors and Seniors passing at least one AP exam


[^5]MASSACHUSETTS - With over 60 of Massachusetts' regional education service agencies now serving as regular school districts, the state's rural student population is much larger than it has been in the past. Rural school communities are wealthy, and in no state is the poverty rate among school-aged rural children as low as it is here. Aside from overreliance on the local tax base (which can exacerbate financial inequalities), and large schools and districts, the policy context is favorable. The state ranks among the best five states in terms of educational outcomes, and is mixed on measures of college readiness; the graduation rate is high and one in four rural high school juniors and seniors has received AP credit, but few enter college with credit from dual enrollment courses.

| GAUGE 2: Fair | Serious | Critical | Urgent |  |
| :---: | :---: | :---: | :---: | :---: |
| Student and 45 |  |  |  |  |
| Family Diversity |  |  | MA | Rank* |
| Rural diversity index |  |  | 21.0\% | 30 |
| Poverty level in rural school communities |  |  | 492\% | 48 |
| Percent rural IEP students |  |  | 16.8\% | 7 |
| Percent of rural school-aged children in poverty |  |  | 3.5\% | 50 |
| Percent rural mobility |  |  | 7.9\% | 47 |




## State revenue to schools per local dollar





* A rank of 1 is most crucial or most urgent.
**See full report for a detailed definition of each indicator.
114 | Why Rural Matters 2018-2019

MICHIGAN = Nearly one quarter of a million students attend school in Michigan's rural districts. These districts enroll a student population with below average levels of poverty, diversity, and special educational needs. Transportation costs are low, and state funding is relatively equitable, but instructional spending is still hundreds of dollars per pupil below the U.S. average. Michigan's rural students are on par with the rest of the rural U.S. on NAEP assessments overall, but do not show quite as much improvement between grades 4 and 8 . College readiness is a concern, with few students taking advantage of dual enrollment and a rural graduation rate well below the
U.S. average.

| GAUGE 1: | Important | Very Important ${ }^{\text {\| }}$ Crucial |  |  | Number of rural students |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 28 |  |  |  |  |  |
| Importance |  | MI | Rank* |  |  |  |
| Percent rural schools |  | 29.4\% | 31 | MI |  | 245,401 |
| Percent small rural districts |  | 33.8\% | 30 |  |  |  |
| Percent rural students |  | 18.4\% | 27 | US median | 95,965 |  |
| Number of rural students |  | 245,401 | 11 |  | - |  |
| Percent state education funds to rural districts |  | 18.0\% | 29 |  |  |  |




| GAUGE 3: Notable Important | Very Important $\downarrow$ Crucial |  |
| :---: | :---: | :---: |
| Educational 38 |  |  |
| Policy Context | MI | Rank* |
| Rural instructional expenditures per pupil | \$6,136 | 22 |
| Ratio of instructional to transportation expenditures | \$12.59 | 39 |
| Median organizational scale (x 100) | 3,019 | 21 |
| State revenue to schools per local dollar | \$1.75 | 35 |
| Rural adjusted salary expenditures per instructional FTE | \$74,476 | 27 |



| GAUGE 5: Fair \| Serious | Critical | Urgent |
| :---: | :---: | :---: |
| College | 9 |  |
| Readiness | MI | Rank* |
| Estimated graduation rate in rural districts | 85.0\% | 11 |
| Percent rural Juniors and Seniors in dual enrollment (males) | 11.7\% | 12 |
| Percent rural Juniors and Seniors in dual enrollment (females) | 16.6\% | 12 |
| Percent rural Juniors and Seniors passing at least one AP exam | 8.9\% | 30 |
| Percent rural Juniors and Seniors who took the ACT or SAT | 47.2\% | 24 | in rural districts



[^6]MINNESOTA - One in three public schools in Minnesota is located in a rural area, serving a rural student population of close to 150,000 (more than one in six of the state's public school students). Measures of student and family diversity are all at or below national averages, except for the percentage of rural students qualifying for special education. The educational policy context is generally favorable, but educational outcomes and measures of college readiness are mixed; overall NAEP scores rank Minnesota's rural students in the highest quartile and the poverty performance gap is relatively small, but relatively little improvement is seen between grades 4 and 8 , and fewer than one in 20 of rural high school juniors and seniors has earned AP credit.

| GAUGE 1: | Notable | Important | Very Important |  |
| :--- | :---: | :---: | :---: | :---: |




Ratio of instructional to transportation expenditures


Rural NAEP improvement (Grade 4 to Grade 8 reading)


| GAUGE 4: | Fair | Serious | Critical |  |
| :--- | :---: | :---: | :---: | :---: |


| GAUGE 5: Fair \| Serious | Critical | Urgent |  |
| :---: | :---: | :---: | :---: |
| College | 19 |  |  |
| Readiness |  | MN | Rank* |
| Estimated graduation rate in rural districts |  | 88.0\% | 21 |
| Percent rural Juniors and Seniors in dual enrollment (males) |  | 18.6\% | 26 |
| Percent rural Juniors and Seniors in dual enrollment (females) |  | 26.0\% | 25 |
| Percent rural Juniors and Seniors passing at least one AP exam |  | 4.7\% | 15 |
| Percent rural Juniors and Seniors who took the ACT or SAT |  | 46.3\% | 21 |

Percent rural Juniors and Seniors passing at least one AP exam


* A rank of 1 is most crucial or most urgent.
**See full report for a detailed definition of each indicator.
116 | Why Rural Matters 2018-2019

MISSISSIPP\| = With one in two schools classified as rural, and half of the state's student population attending school in a rural district, Mississippi ranks as the seventh most rural state. Moreover, our analysis suggests that the nearly 235,000 students who attend school in rural Mississippi should be given the highest priority of rural students anywhere in the nation. These students attend schools that tend to serve high numbers of students from historically underserved racial/ethnic groups, and are located in relatively poor communities. Rather than compensating for the fact that nearly one in four rural students lives in poverty, instructional spending on these students is almost $\$ 2,000$ less than the national average, and teacher pay is equally low. Educational outcomes are the second lowest in the U.S., and the college readiness measures require urgent attention, with low graduation rates and few rural students entering college with credit from AP or dual enrollment coursework.
GAUGE 1:


| Importance | MS | Rank* |
| :---: | :---: | :---: |
| Percent rural schools | 50.1\% | 12 |
| Percent small rural districts | 2.4\% | 41 |
| Percent rural students | 48.6\% | 3 |
| Number of rural students | 234,375 | 12 |
| Percent state education funds to rural districts | 49.9\% | 3 |

Percent of rural school-aged children in poverty


| GAUGE 2: Fair | Serious | Critical | Urgent |
| :---: | :---: | :---: | :---: |
| Student and Family Diversity |  | 10 |  |
|  |  | MS | Rank* |
| Rural diversity index |  | 39.5\% | 14 |
| Poverty level in rural school communities |  | 227\% | 11 |
| Percent rural IEP students |  | 14.4\% | 24 |
| Percent of rural school-aged children in poverty |  | 23.1\% | 3 |
| Percent rural mobility |  | 8.9\% | 40 |

PRIORITY
RANKING


| GAUGE 5: Fair \| Serious | Critical | Urgent |
| :---: | :---: | :---: |
| College Readiness | 12 |  |
|  | MS | Rank* |
| Estimated graduation rate in rural districts | 84.4\% | 8 |
| Percent rural Juniors and Seniors in dual enrollment (males) | 12.4\% | 16 |
| Percent rural Juniors and Seniors in dual enrollment (females) | 20.8\% | 16 |
| Percent rural Juniors and Seniors passing at least one AP exam | 3.8\% | 10 |
| Percent rural Juniors and Seniors who took the ACT or SAT | 63.0\% | 44 |

Estimated graduation rate in rural districts


[^7]MISSOURI - The majority of Missouri's nearly 200,000 rural students attend school in relatively small districts. These districts tend to be racially homogenous with high numbers of students in poverty and one in nine students changing primary residences in the past year. The educational policy context is one of the 10 most unfavorable in the U.S., with inequitable funding, high transportation costs, inadequate instructional spending, and the fifth lowest adjusted rural teacher salaries in the nation. Perhaps unsurprising given such policies, four of five educational outcomes in rural Missouri are at or below the national median. In terms of college readiness, however, the state ranks among the top 10 most prepared states on our indicators.

PRIORITY
RANKING

| GAUGE 1: Notable | Important | Very Important | Crucial |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Importance |  | MO | Rank* |
| Percent rural schools |  | 43.4\% | 17 |
| Percent small rural districts |  | 63.4\% | 16 |
| Percent rural students |  | 20.9\% | 24 |
| Number of rural students |  | 186,231 | 16 |
| Percent state education funds to rural districts |  | 24.2\% | 22 |



Poverty level in rural school communities


| GAUGE 2: Fair | Serious | Critical | Urgent |  |
| :---: | :---: | :---: | :---: | :---: |
| Student and |  | 18 |  |  |
| Family Diversity |  |  | MO | Rank* |
| Rural diversity index |  |  | 14.2\% | 43 |
| Poverty level in rural school communities |  |  | 220\% | 9 |
| Percent rural IEP students |  |  | 14.4\% | 24 |
| Percent of rural school-aged children in poverty |  |  | 18.2\% | 13 |
| Percent rural mobility |  |  | 11.5\% | 15 |





* A rank of 1 is most crucial or most urgent.
**See full report for a detailed definition of each indicator.
118 | Why Rural Matters 2018-2019

MONTANA - Three out of four of Montana's schools are located in a rural area, and Montana's 48,000 rural students attend schools in districts that encompass vast land areas with few students. Only one in eight of Montana's rural students qualifies for specialized education services, and other areas of racial and socioeconomic diversity hover around the U.S. median. The educational policy context is generally favorable, and the state ranks at or better than the U.S. median on all five educational outcomes. However, aside from high ACT/SAT test-taking rates, Montana's rural students face challenges in areas of college readiness; one in seven fails to graduate, and of those who do graduate, few enter college with credit from AP exams or dual enrollment coursework.


Poverty level in rural school communities


| GAUGE 2: | Fair | Serious | Critical |  |
| :--- | :---: | :---: | :---: | :---: |



Ratio of instructional to transportation expenditures

Rural NAEP improvement (Grade 4 to Grade 8 reading)


| GAUGE 4: Fair \| Serious | | Critical | Urgent |
| :---: | :---: | :---: |
| Educational Outcomes |  |  |
|  | MT | Rank* |
| Rural NAEP improvement (Grade 4 to Grade 8 math) | 0.131 | 40 |
| Rural NAEP improvement (Grade 4 to Grade 8 reading) | 0.129 | 44 |
| Rural NAEP performance (Grade 4 and Grade 8, math and reading) | 0.072 | 28 |
| Rural NAEP poverty disadvantage | -0.464 | 39 |
| Rural advantage for NAEP performance | 0.022 | 25 |

Percent rural Juniors and Seniors in dual enrollment (females)


* A rank of 1 is most crucial or most urgent.
**See full report for a detailed definition of each indicator.

NEBRASKA - Most of Nebraska's nearly 75,000 rural students attend school in small districts. Despite $23.4 \%$ of the state's students attending a rural district, only $18.9 \%$ of the state's funds are directed to these districts; nowhere in the U.S. is the funding gap as large as this. Moreover, for every $\$ 4$ raised in local revenue, the rural districts receive a mere $\$ 1$ from the state-also the most inequitable distribution in the nation. Nebraska's rural students are characterized by low levels of racial diversity, average numbers of students qualifying for special education services, and students who are not likely to change residences. Educational outcomes hover mostly around the national average, as do measures of college readiness, with the exception being that only one in 100 36 rural juniors and seniors has earned AP credit.


Percent rural schools

Percent of rural school-aged children in poverty



## State revenue to schools per local dollar



Rural NAEP improvement (Grade 4 to Grade 8 math)


| GAUGE 4: Fair Serious | Critical | Urgent |
| :---: | :---: | :---: |
|  |  |  |
|  | NE | Rank* |
| Rural NAEP improvement (Grade 4 to Grade 8 math) | -0.123 | 15 |
| Rural NAEP improvement (Grade 4 to Grade 8 reading) | 0.018 | 24 |
| Rural NAEP performance (Grade 4 and Grade 8, math and reading) | 0.175 | 35 |
| Rural NAEP poverty disadvantage | -0.558 | 20 |
| Rural advantage for NAEP performance | 0.071 | 30 |

Percent rural Juniors and Seniors passing at least one AP exam


* A rank of 1 is most crucial or most urgent.
**See full report for a detailed definition of each indicator.

NEVADA - Nevada's rural student population is small at only 7,500 , and yet this is all the more reason to ensure they are not overlooked. This population is the most diverse in the nation, in terms of race, socioeconomic status, and geographic mobility. In an average rural class of 25 students, four or five have changed residences within the past year, posing extreme challenges in educational stability for these students and their classmates. Teacher salaries and per pupil instructional spending are high, but the funding for rural schools is inequitable and transportation costs are substantial. Although NAEP scores for rural students are below those of Nevada's non-rural student population, Nevada's rural students show some of the best improvement in the rural U.S. between 4th and 8th grade in both math and reading. Low rates of dual enrollment and AP credit rank Nevada's rural students as the least ready for college in the nation.



| GAUGE 5: Fair \| Serious | Critical | Urgent |
| :---: | :---: | :---: |
| College |  | 1 |
| Readiness | NV | Rank* |
| Estimated graduation rate in rural districts | 82.2\% | 6 |
| Percent rural Juniors and Seniors in dual enrollment (males) | 5.7\% | 4 |
| Percent rural Juniors and Seniors in dual enrollment (females) | 9.1\% | 5 |
| Percent rural Juniors and Seniors passing at least one AP exam | 1.1\% | 3 |
| Percent rural Juniors and Seniors who took the ACT or SAT | 53.1\% | 33 |

Percent rural Juniors and Seniors passing at least one AP exam


[^8]NEW HAMPSHRRE - With a third of its students and over half of its schools in rural areas, New Hampshire ranks in the top 10 on the Importance Gauge. The state is a low state priority overall, however, because it has a generally favorable educational policy context, and because its schools produce consistently positive educational outcomes. Dual enrollment does not appear to be a popular option among New Hampshire's rural students, but they score well on all other indicators of college readiness.

| GAUGE 1: Notable | Important | Very Important | Crucial |
| :---: | :---: | :---: | :---: |
| Importance |  | 9 |  |
|  |  | NH | Rank* |
| Percent rural schools |  | 50.4\% | 10 |
| Percent small rural districts |  | 62.0\% | 17 |
| Percent rural students |  | 34.3\% | 9 |
| Number of rural students |  | 61,413 | 34 |
| Percent state education funds to rural districts |  | 36.8\% | 10 |




State revenue to schools per local dollar




Percent rural Juniors and Seniors in dual enrollment (females)


* A rank of 1 is most crucial or most urgent.
**See full report for a detailed definition of each indicator.
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NEW JERSEY - Although not one of the more rural states, there are still over 86,000 students enrolled in New Jersey's rural school districts. These students are racially diverse, and nearly one in five qualifies for special education services. Instructional expenditures exceed $\$ 10,000$ per pupil, and school communities earn average incomes nearly four times that of the poverty line. One in 11 rural students has changed residences within the past year-a substantial jump in mobility from the most recent report three years prior. Funding is highly inequitable, with the local tax base responsible for most of the revenue. New Jersey's rural students perform well overall on the NAEP tests, especially compared to their non-rural peers, but the relative drop between grades 4 and 8 in both math and reading is concerning. New Jersey is one of the only states to rank above the national median on all indicators of college readiness.


| GAUGE 3: Notable \| Important | Very Important $\mid$ Crucial |  |
| :---: | :---: | :---: |
| Educational Policy Context |  |  |
|  | NJ | Rank* |
| Rural instructional expenditures per pupil | \$10,779 | 46 |
| Ratio of instructional to transportation expenditures | \$10.90 | 29 |
| Median organizational scale (x 100) | 4,781 | 17 |
| State revenue to schools per local dollar | \$0.62 | 6 |
| Rural adjusted salary expenditures per instructional FTE | \$76,870 | 33 |

State revenue to schools per local dollar


Rural NAEP improvement (Grade 4 to Grade 8 math)




Percent rural Juniors and Seniors passing at least one AP exam


[^9]NEW MEXICO - One in seven New Mexico students attends school in a rural district, most of which enroll fewer students than the national median. Despite the fact that $65 \%$ of New Mexico's rural students are Hispanic, most students attend racially homogenous schools. Three in 10 rural New Mexico students live in poverty, and school communities are the poorest in the nation. Districts are heavily funded by the state, and transportation costs are consuming a much larger portion of the budget than in past years. NAEP scores are the lowest in the country, and nowhere is the poverty gap wider, but improvement between grades 4 and 8 is average in math and well above average in reading. Dual enrollment is popular, but students are less likely to receive AP credit or take a major college entrance

| GAUGE 1: | Notable | Important | Very Important |  |
| :--- | :---: | :---: | :---: | :---: |



Percent of rural school-aged


| GAUGE 2: Fair | Serious | Critical | Urgent |
| :---: | :---: | :---: | :---: |
| Student and Family Diversity |  | 9 |  |
|  |  | NM | Rank* |
| Rural diversity index |  | 26.7\% | 25 |
| Poverty level in rural school communities |  | 174\% | 1 |
| Percent rural IEP students |  | 14.7\% | 19 |
| Percent of rural school-aged children in poverty |  | 29.7\% | 1 |
| Percent rural mobility |  | 8.5\% | 42 |




[^10]124 | Why Rural Matters 2018-2019

NEW YORK - Only five states serve a larger absolute population of rural students than New York. School communities are wealthy, instructional spending is second only to Alaska, and the average teacher salary is six figures after adjusting for comparable wages in the rural districts. Educational outcomes are near or above average on all indicators except for the difference between grade 4 and grade 8 reading scores-in no other state is the drop in standardized reading scores more pronounced. New York's rural students end their final years of high school well prepared for college and graduate at a rate just under the national average.

| GAUGE 1: Notable \| | Important | Very Important | Crucial |
| :---: | :---: | :---: | :---: |
|  | 32 |  |  |
| Importance |  | NY | Rank* |
| Percent rural schools |  | 16.7\% | 41 |
| Percent small rural districts |  | 31.7\% | 32 |
| Percent rural students |  | 11.2\% | 35 |
| Number of rural students |  | 289,863 | 6 |
| Percent state education funds to rural districts |  | 22.4\% | 25 |

Poverty level in rural school communities

us

| GAUGE 2: Fair | Serious | Critical | Urgent |  |
| :---: | :---: | :---: | :---: | :---: |
| Student and | 30 |  |  |  |
| Family Diversity |  |  |  | NY | Rank* |
| Rural diversity index |  |  | 22.2\% | 28 |
| Poverty level in rural school communities |  |  | 325\% | 42 |
| Percent rural IEP students |  |  | 16.3\% | 9 |
| Percent of rural school-aged children in poverty |  |  | 13.6\% | 26 |
| Percent rural mobility |  |  | 9.2\% | 34 |


| GAUGE 3: | Notable | Important | Very Important | Crucial |
| :--- | :---: | :---: | :---: | :---: |
| Educational | $\mathbf{3 9}$ |  |  |  |
| Policy Context |  | NY | Rank* |  |
| Rural instructional expenditures per pupil | $\$ 13,226$ | 48 |  |  |
| Ratio of instructional to transportation expenditures | $\$ 8.82$ | 12 |  |  |
| Median organizational scale (x 100) | 3,290 | 20 |  |  |
| State revenue to schools per local dollar | $\$ 1.18$ | 22 |  |  |
| Rural adjusted salary expenditures per instructional FTE | $\$ 100,957$ | 43 |  |  |

Ratio of instructional to
transportation expenditures

Rural NAEP improvement (Grade 4 to Grade 8 reading)


| GAUGE 4: | Fair | Serious | Critical |  |
| :--- | :---: | :---: | :---: | :---: |


| GAUGE 5: Fair \| Serious | Critical | Urgent |
| :---: | :---: | :---: |
| College Readiness |  |  |
|  | NY | Rank* |
| Estimated graduation rate in rural districts | 88.2\% | 22 |
| Percent rural Juniors and Seniors in dual enrollment (males) | 28.3\% | 39 |
| Percent rural Juniors and Seniors in dual enrollment (females) | 33.2\% | 38 |
| Percent rural Juniors and Seniors passing at least one AP exam | 17.0\% | 42 |
| Percent rural Juniors and Seniors who took the ACT or SAT | 39.4\% | 11 |



* A rank of 1 is most crucial or most urgent.
**See full report for a detailed definition of each indicator.

NORTH CAROLINA - With more than half a million students enrolled in rural school districts, North Carolina ranks as one of the top 10 most rural states. It is one of only four states where a pair of randomly chosen rural students are more likely to be of different races than of the same racial/ethnic background. Economic conditions are grave in the state's rural areas, with more than one in five school-aged children living in poverty and per pupil instructional expenditures more than $\$ 1,000$ below the national average. Schools and districts are large, but transportation costs are surprisingly low. Rural students struggle on the NAEP more than their non-rural counterparts, with the most pronounced area of concern being the relative decrease in reading performance from 4th to 8th grade. North Carolina's rural students are at or below the national median on all five indicators of college readiness.


Rural NAEP improvement (Grade 4 to Grade 8 reading)


| GAUGE 4: Fair Serious | Critical | Urgent |
| :---: | :---: | :---: |
| Educational Outcomes |  | 3 |
|  | NC | Rank* |
| Rural NAEP improvement (Grade 4 to Grade 8 math) | -0.088 | 17 |
| Rural NAEP improvement (Grade 4 to Grade 8 reading) | -0.143 | 3 |
| Rural NAEP performance (Grade 4 and Grade 8, math and reading) | -0.030 | 16 |
| Rural NAEP poverty disadvantage | -0.554 | 21 |
| Rural advantage for NAEP performance | -0.086 | 7 |


| GAUGE 5: Fair Serious | Critical | Urgent |
| :---: | :---: | :---: |
| College Readiness | 13 |  |
|  | NC | Rank* |
| Estimated graduation rate in rural districts | 86.0\% | 15 |
| Percent rural Juniors and Seniors in dual enrollment (males) | 15.6\% | 19 |
| Percent rural Juniors and Seniors in dual enrollment (females) | 22.0\% | 18 |
| Percent rural Juniors and Seniors passing at least one AP exam | 7.9\% | 25 |
| Percent rural Juniors and Seniors who took the ACT or SAT | 46.2\% | 19 |

Estimated graduation rate in rural districts


* A rank of 1 is most crucial or most urgent.
**See full report for a detailed definition of each indicator.

NORTH DAKOTA - With two of three schools in the state in a rural area and over a third of the state's students attending school in a rural district, North Dakota is the nation's fourth most rural state. Instructional spending is high, only one in 10 rural school-aged children lives in poverty, and rural school communities are about $25 \%$ wealthier than the national average. However, despite these signs of financial health, transportation costs are substantial and adjusted teacher salaries are the 7th lowest in the nation. NAEP scores are near the national median, and the improvement between grades 4 and 8 is more pronounced in math than in reading among North Dakota's rural students. Only one in 200 rural students passes an AP exam, but rural students demonstrate average levels of college readiness otherwise.



| GAUGE 5: Fair \| Serious | Critical | Urgent |
| :---: | :---: | :---: |
| College Readiness | 15 |  |
|  | ND | Rank* |
| Estimated graduation rate in rural districts | 88.3\% | 23 |
| Percent rural Juniors and Seniors in dual enrollment (males) | 19.4\% | 27 |
| Percent rural Juniors and Seniors in dual enrollment (females) | 26.8\% | 26 |
| Percent rural Juniors and Seniors passing at least one AP exam | 0.6\% | 1 |
| Percent rural Juniors and Seniors who took the ACT or SAT | 47.1\% | 23 |



[^11]ОН1O - More than 366,000 of Ohio's students are enrolled in rural school districts, the fourth largest number of rural students in the nation. The rural student population is relatively homogenous, ranking below or near the US median on every diversity indicator. Educational policy issues are of crucial concern, with high transportation costs, inequitable funding, and large schools and districts. Educational outcomes for rural students are strong, especially in improvement on NAEP math scores from 4th to 8th grades. Aside from a relatively low percentage of students receiving AP credit, Ohio's rural student population is otherwise strong



| GAUGE 2: Fair | Serious | Critical | Urgent |  |
| :---: | :---: | :---: | :---: | :---: |
| Student and Family Diversity | 38 |  |  |  |
|  |  |  |  | OH | Rank* |
| Rural diversity index |  |  | 14.2\% | 43 |
| Poverty level in rural school communities |  |  | 283\% | 31 |
| Percent rural IEP students |  |  | 14.5\% | 22 |
| Percent of rural school-aged children in poverty |  |  | 12.8\% | 29 |
| Percent rural mobility |  |  | 9.5\% | 32 |


| GAUGE 3: Notable \| Important | Very Important |  |
| :---: | :---: | :---: |
| Educational Policy Context |  | 7 |
|  | OH | Rank* |
| Rural instructional expenditures per pupil | \$5,895 | 21 |
| Ratio of instructional to transportation expenditures | \$9.22 | 14 |
| Median organizational scale (x 100) | 4,699 | 18 |
| State revenue to schools per local dollar | \$1.01 | 16 |
| Rural adjusted salary expenditures per instructional FTE | NA | NA |

## State revenue to schools per local dollar



Rural NAEP improvement (Grade 4 to Grade 8 math)


| GAUGE 4: | Fair | Serious | Critical |  |  | Urgent |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Educational <br> Outcomes | 43 |  |  |  |  |  |
| Rural NAEP improvement (Grade 4 to Grade 8 math) | OH | Rank* |  |  |  |  |
| Rural NAEP improvement (Grade 4 to Grade 8 reading) | 0.170 | 46 |  |  |  |  |
| Rural NAEP performance (Grade 4 and Grade 8, math and reading) | 0.036 | 27 |  |  |  |  |
| Rural NAEP poverty disadvantage | 0.187 | 37 |  |  |  |  |
| Rural advantage for NAEP performance | -0.541 | 26 |  |  |  |  |



* A rank of 1 is most crucial or most urgent.
**See full report for a detailed definition of each indicator.

OKLAHOMA - Oklahoma's ranking as our fourth-highest overall priority state is the state's highest in a decade. More than half of all public schools serve rural communities, and the nearly 200,000 students in rural districts are among the most diverse in the nation in terms of race, specialized education needs, poverty, and residential instability. Only Idaho spends less per student on instruction, and adjusted teacher salaries are nearly $\$ 13,000$ below the U.S. average. Overall academic performance is low, as is the rate of improvement between grades 4 and 8, but Oklahoma's rural students outscore their non-rural counterparts and the poverty gap for performance is narrower than in almost any other state. Two in three rural students take the ACT or SAT each year, but relatively
few earn college credit through dual enrollment or AP tests.

| GAUGE 1: Notable | Important | Very Important | Crucial$\mathbf{6}$ |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Importance |  | OK | Rank* |
| Percent rural schools |  | 51.9\% | 7 |
| Percent small rural districts |  | 68.6\% | 11 |
| Percent rural students |  | 28.7\% | 15 |
| Number of rural students |  | 192,269 | 15 |
| Percent state education funds to rural districts |  | 31.0\% | 15 |

Percent rural schools



| GAUGE 3: Notable \| Important | \| Very Important | | Crucial |
| :---: | :---: | :---: |
| Educational |  |  |
| Policy Context | OK | Rank* |
| Rural instructional expenditures per pupil | \$4,737 | 2 |
| Ratio of instructional to transportation expenditures | \$16.18 | 46 |
| Median organizational scale (x 100) | 732 | 39 |
| State revenue to schools per local dollar | \$1.35 | 27 |
| Rural adjusted salary expenditures per instructional FTE | \$56,591 | 3 |

Rural adjusted salary expenditures per instructional FTE


Rural NAEP improvement (Grade 4 to Grade 8 math)


| GAUGE 4: Fair \| Serious | Critical | Urgent |  |
| :---: | :---: | :---: | :---: |
| Educational | 18 |  |  |
| Outcomes |  | OK | Rank* |
| Rural NAEP improvement (Grade 4 to Grade 8 math) |  | -0.181 | 8 |
| Rural NAEP improvement (Grade 4 to Grade 8 reading) |  | 0.004 | 22 |
| Rural NAEP performance (Grade 4 and Grade 8, math and reading) |  | -0.051 | 14 |
| Rural NAEP poverty disadvantage |  | -0.475 | 38 |
| Rural advantage for NAEP performance |  | 0.077 | 31 |


| GAUGE 5: Fair \| Serious | Critical | Urgent |
| :---: | :---: | :---: |
| College Readiness | 10 |  |
|  | OK | Rank* |
| Estimated graduation rate in rural districts | 87.3\% | 18 |
| Percent rural Juniors and Seniors in dual enrollment (males) | 9.2\% | 8 |
| Percent rural Juniors and Seniors in dual enrollment (females) | 13.0\% | 9 |
| Percent rural Juniors and Seniors passing at least one AP exam | 3.3\% | 9 |
| Percent rural Juniors and Seniors who took the ACT or SAT | 68.4\% | 48 |



[^12]OREGON - With Oregon's population concentrated in urban areas, only one in 11 students is enrolled in a rural district. Over one in seven of the state's rural students lives in poverty, and one in eight has changed residences within the previous year. Oregon's rural districts spend $\$ 600$ less than the national average on instruction per student and transportation costs are substantial, but teacher salaries are high relative to wages in areas where the schools are located. NAEP performance is low overall, with the barriers for poor and for rural students particularly substantial in Oregon; on a positive note, rural students show more improvement between grades 4 and 8 than in most other states. One in three high school juniors and seniors from Oregon's rural districts receives dual enrollment credit, but 17 AP credit and ACT/SAT test-taking are scarce-moreover, over one in five students who begin high school in a rural Oregon district do not graduate within four years.



| GAUGE 2: Fair | Serious | Critical | 1 Urgent |  |
| :---: | :---: | :---: | :---: | :---: |
| Student and |  | 12 |  |  |
| Family Diversity |  |  | OR | Rank* |
| Rural diversity index |  |  | 35.3\% | 19 |
| Poverty level in rural school communities |  |  | 238\% | 17 |
| Percent rural IEP students |  |  | 14.2\% | 29 |
| Percent of rural school-aged children in poverty |  |  | 15.4\% | 21 |
| Percent rural mobility |  |  | 12.8\% | 7 |


| GAUGE 3: Notable \| Important | \| Very Important | Crucial |
| :---: | :---: | :---: |
| Educational 29 |  |  |
| Policy Context | OR | Rank* |
| Rural instructional expenditures per pupil | \$5,770 | 20 |
| Ratio of instructional to transportation expenditures | \$8.26 | 8 |
| Median organizational scale ( x 100 ) | 1,204 | 33 |
| State revenue to schools per local dollar | \$1.79 | 36 |
| Rural adjusted salary expenditures per instructional FTE | \$74,516 | 28 |

# Ratio of instructional to transportation expenditures 



| GAUGE 5: Fair Serious | Critical | Urgent |
| :---: | :---: | :---: |
| College Readiness | 14 |  |
|  | OR | Rank* |
| Estimated graduation rate in rural districts | 77.8\% | 3 |
| Percent rural Juniors and Seniors in dual enrollment (males) | 30.4\% | 41 |
| Percent rural Juniors and Seniors in dual enrollment (females) | 33.6\% | 39 |
| Percent rural Juniors and Seniors passing at least one AP exam | 4.1\% | 14 |
| Percent rural Juniors and Seniors who took the ACT or SAT | 16.3\% | 2 |

[^13]PENNSYLVANAA - Over a quarter of a million Pennsylvania students are enrolled in rural school districts, the seventh largest absolute rural student enrollment in the country. The rural student population is relatively homogenous, ranking below the U.S. median on every diversity indicator except for the percentage of students who qualify for specialized education services. Rural schools and districts are large, rely heavily on the local tax base for funding, and face steep transportation costs. The rural poverty gap that appears in every state's educational outcomes is narrowest in Pennsylvania, and rural students perform well in terms of absolute scores, score improvements, and comparisons to their non-rural counterparts. Dual enrollment and the taking of the ACT or SAT are not as common in rural Pennsylvania as in the rural parts of most other states, but AP performance is strong and more than nine out of 10 students who begin high school graduate within four years.




Ratio of instructional to transportation expenditures


Rural NAEP poverty disadvantage


| GAUGE 4: | Fair | Serious | Critical |  |
| :--- | :---: | :---: | :---: | :---: |


| GAUGE 5: | Critical | Urgent |  |
| :---: | :---: | :---: | :---: |
| College Readiness | 19 |  |  |
|  |  | PA | Rank* |
| Estimated graduation rate in rural districts |  | 91.8\% | 36 |
| Percent rural Juniors and Seniors in dual enrollment (males) |  | 12.1\% | 14 |
| Percent rural Juniors and Seniors in dual enrollment (females) |  | 17.2\% | 13 |
| Percent rural Juniors and Seniors passing at least one AP exam |  | 10.2\% | 33 |
| Percent rural Juniors and Seniors who took the ACT or SAT |  | 39.6\% | 12 |



[^14]RHODE ISLAND - Although 3.5\% of Rhode Island's students are enrolled in a rural district, these districts receive only $2.3 \%$ of the state funding. The state's rural students attend school mostly with students of the same racial/ethnic backgrounds, in communities where household average income is over four times the poverty line. Rhode Island is one of only six states that invest more than $\$ 10,000$ in the instruction of each pupil, although state funding support is weak relative to local support. Educational outcomes are mostly strong, and rural students outperform their non-rural counterparts on NAEP tests by a wider margin than in any other state. The largest area of concern appears to be college readiness; although Rhode Island's rural students earn AP credit at high levels, no dual enrollment was reported, relatively few high school juniors and seniors take a major college entrance exam, and the graduation rate is mediocre.

| GAUGE 1: Notable | Important | Very Important | Crucial |
| :---: | :---: | :---: | :---: |
| 49 |  |  |  |
| Importance |  | RI | Rank* |
| Percent rural schools |  | 8.6\% | 50 |
| Percent small rural districts |  | 50.0\% | 22 |
| Percent rural students |  | 3.5\% | 46 |
| Number of rural students |  | 4,324 | 49 |
| Percent state education funds to rural districts |  | 2.3\% | 49 |



Percent rural IEP students


RI


US

| GAUGE 2: Fair । | Serious | Critical | Urgent |  |
| :---: | :---: | :---: | :---: | :---: |
| Student and Family Diversity |  |  |  |  |
|  |  |  | RI | Rank* |
| Rural diversity index |  |  |  | 11.0\% | 47 |
| Poverty level in rural school communities |  |  | 408\% | 46 |
| Percent rural IEP students |  |  | 14.9\% | 15 |
| Percent of rural school-aged children in poverty |  |  | 7.3\% | 47 |
| Percent rural mobility |  |  | NA | NA |


| GAUGE 3: Notable \| Important | \| Very Important | Crucial |
| :---: | :---: | :---: |
| Educational 31 |  |  |
| Policy Context | RI | Rank* |
| Rural instructional expenditures per pupil | \$10,227 | 44 |
| Ratio of instructional to transportation expenditures | \$9.55 | 16 |
| Median organizational scale (x 100) | 2,714 | 23 |
| State revenue to schools per local dollar | \$0.31 | 2 |
| Rural adjusted salary expenditures per instructional FTE | \$87,476 | 42 |



| GAUGE 5: Fair Serious | Critical | Urgent |
| :---: | :---: | :---: |
| College Readiness |  | 5 |
|  | RI | Rank* |
| Estimated graduation rate in rural districts | 88.6\% | 25 |
| Percent rural Juniors and Seniors in dual enrollment (males) | 0.0\% | 1 |
| Percent rural Juniors and Seniors in dual enrollment (females) | 0.0\% | 1 |
| Percent rural Juniors and Seniors passing at least one AP exam | 15.3\% | 40 |
| Percent rural Juniors and Seniors who took the ACT or SAT | 40.4\% | 15 |

Percent rural Juniors and Seniors in dual enrollment (females)


* A rank of 1 is most crucial or most urgent.
**See full report for a detailed definition of each indicator.

SOUTH CAROLINA = Four of every 10 schools in South Carolina are in rural areas, compared to less than three in 10 nationwide. More than one in five of the state's nearly 120,000 rural students live in poverty, and households in the average rural school district earn barely twice the poverty threshold. South Carolina's rural districts have some of the nation's highest rates of enrollment for students of color. Instructional spending and adjusted teacher salaries are well below the national averages, but transportation costs are relatively low. Performance on standardized math and reading tests is among the lowest in the U.S. The gaps between South Carolina's rural and non-rural students and between the state's rural students living in poverty and those who are not are larger than in nearly all other states.
However, average improvement from grades 4 to 8 in both math and reading is high. Nearing graduation, rural students are on par with their rural peers on AP credits and college entrance test-taking, but lower in dual enrollment credit on graduation rates.

| GAUGE 1: | Notable | Important |  |
| :--- | :---: | :---: | :---: |

Percent small rural districts


Poverty level in rural school communities


| GAUGE 2: Fair | Serious | Critical | Urgent |
| :---: | :---: | :---: | :---: |
| Student and Family Diversity |  |  | 3 |
|  |  | SC | Rank* |
| Rural diversity index |  | 47.3\% | 8 |
| Poverty level in rural school communities |  | 210\% | 4 |
| Percent rural IEP students |  | 14.8\% | 16 |
| Percent of rural school-aged children in poverty |  | 21.4\% | 6 |
| Percent rural mobility |  | 11.6\% | 14 |



| GAUGE 5: Fair \| Serious | Critical | ent |
| :---: | :---: | :---: |
| College Readiness | 19 |  |
|  | SC | Rank* |
| Estimated graduation rate in rural districts | 85.2\% | 12 |
| Percent rural Juniors and Seniors in dual enrollment (males) | 15.0\% | 18 |
| Percent rural Juniors and Seniors in dual enrollment (females) | 20.3\% | 15 |
| Percent rural Juniors and Seniors passing at least one AP exam | 8.2\% | 28 |
| Percent rural Juniors and Seniors who took the ACT or SAT | 54.6\% | 35 |



[^15]SOUTH DAKOTA - south Dakota is the third most rural state in the nation, with the vast majority of schools located in a rural area and two in five students enrolled in a rural school district. While lacking in racial diversity, rural classrooms face the disruption of one in eight students moving residences in the previous 12 months. As schools nationwide increase instructional spending on rural students, South Dakota is one of only seven states to decrease spending. On educational outcomes, South Dakota's rural students perform near the national average overall, but challenges facing rural students living in poverty appear to be particularly strong. Very few rural juniors and seniors have passed an AP exam, and one in six rural South Dakota students fails to graduate. 5


| GAUGE 3: Notable \| Important | Very Important $\mid$ Crucial |  |
| :---: | :---: | :---: |
| Educational Policy Context | 15 |  |
|  | SD | Rank* |
| Rural instructional expenditures per pupil | \$5,427 | 12 |
| Ratio of instructional to transportation expenditures | \$11.10 | 32 |
| Median organizational scale (x 100) | 205 | 48 |
| State revenue to schools per local dollar | \$0.54 | 5 |
| Rural adjusted salary expenditures per instructional FTE | \$60,318 | 8 |

Rural adjusted salary expenditures per instructional FTE


Rural NAEP poverty disadvantage


| GAUGE 4: | Fair | Serious | Critical |  |
| :--- | :---: | :---: | :---: | :---: |


| GAUGE 5: Fair Serious | Critical | Urgent |
| :---: | :---: | :---: |
| College Readiness | 15 |  |
|  | SD | Rank* |
| Estimated graduation rate in rural districts | 84.7\% | 9 |
| Percent rural Juniors and Seniors in dual enrollment (males) | 19.4\% | 27 |
| Percent rural Juniors and Seniors in dual enrollment (females) | 30.0\% | 32 |
| Percent rural Juniors and Seniors passing at least one AP exam | 3.2\% | 8 |
| Percent rural Juniors and Seniors who took the ACT or SAT | 47.2\% | 24 |



* A rank of 1 is most crucial or most urgent.
**See full report for a detailed definition of each indicator.

TENNESSEE - The number of students attending school in a rural Tennessee district has increased by over $30 \%$ in the past several years, mostly because some districts have been reclassified as rural. Rural schools and districts are large, and their students are more likely to face extreme poverty and move residences than their rural counterparts in other states. Instructional spending and teacher salaries are low, and NAEP performance is below the national average. Rural Tennessee students are on par with their peers on most college readiness indicators, however, and the graduation rate is high at over $93 \%$.

| GAUGE 1: Notable | Important | Very Important ${ }^{\text {\| Crucial }}$ |  | TN | Number of rural students |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Importance |  |  |  |  |  |
|  |  | TN | Rank* |  | 293,436 |
| Percent rural schools |  | 34.9\% | 25 |  |  |
| Percent small rural districts |  | 4.3\% | 38 | $\begin{aligned} & \text { US } \\ & \text { median } \end{aligned}$ | 95,965 |
| Percent rural students |  | 29.3\% | 14 |  |  |
| Number of rural students |  | 293,436 | 5 |  |  |
| Percent state education funds to rural districts |  | 34.5\% | 12 |  |  |




| GAUGE 3: Notable \| Important | Very Important | Crucial |
| :---: | :---: | :---: |
| Educational Policy Context | 12 |  |
|  | TN | Rank* |
| Rural instructional expenditures per pupil | \$5,165 | - 7 |
| Ratio of instructional to transportation expenditures | \$14.69 | 43 |
| Median organizational scale (x 100) | 21,044 | 6 |
| State revenue to schools per local dollar | \$1.68 | 33 |
| Rural adjusted salary expenditures per instructional FTE | \$62,020 | 11 |




| GAUGE 4: Fair \| Serious | | Critical | Urgent |
| :---: | :---: | :---: |
| Educational $\square 23$ |  |  |
| Outcomes | TN | Rank* |
| Rural NAEP improvement (Grade 4 to Grade 8 math) | 0.017 | 31 |
| Rural NAEP improvement (Grade 4 to Grade 8 reading) | -0.001 | 21 |
| Rural NAEP performance (Grade 4 and Grade 8, math and reading) | -0.016 | 18 |
| Rural NAEP poverty disadvantage | -0.566 | 17 |
| Rural advantage for NAEP performance | 0.081 | 33 |




[^16]TEXAS - Texas has the nation's largest rural student enrollment, with nearly 700,000 total students. Districts are racially diverse, one in nine students has changed residences in the past year, and very few students qualify for specialized education services. Instructional spending per pupil is very low, and funding continues to grow more inequitable every year. Overall NAEP performance is average, but rural students in poverty score particularly low relative to their rural peers not in poverty, and improvement between grades 4 and 8 is weaker in both reading and math than in most other states. Rural graduation rates are high: Only one in 16 students who begins high school in a

| GAUGE 1: Notable | Important | Very Important ${ }^{\text {a }}$ Crucial |  |
| :---: | :---: | :---: | :---: |
|  | 25 |  |  |
| Importance |  | TX | Rank* |
| Percent rural schools |  | 25.9\% | 33 |
| Percent small rural districts |  | 48.7\% | 24 |
| Percent rural students |  | 13.6\% | 33 |
| Number of rural students |  | 693,668 | 1 |
| Percent state education funds to rural districts |  | 15.3\% | 35 |



| GAUGE 3: Notable Important | Very Important | Crucial |
| :---: | :---: | :---: |
| Educational | 14 |  |
| Policy Context | TX | Rank* |
| Rural instructional expenditures per pupil | \$5,386 | 9 |
| Ratio of instructional to transportation expenditures | \$19.28 | 48 |
| Median organizational scale (x 100) | 2,275 | 25 |
| State revenue to schools per local dollar | \$0.73 | 8 |
| Rural adjusted salary expenditures per instructional FTE | \$64,339 | 14 |

## State revenue to schools per local dollar



Rural NAEP improvement (Grade 4 to Grade 8 math)


| GAUGE 4: | Fair | Serious | Critical |  | Urgent |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Educational <br> Outcomes | $\mathbf{9}$ |  |  |  |  |  |
| Rural NAEP improvement (Grade 4 to Grade 8 math) | TX | Rank* |  |  |  |  |
| Rural NAEP improvement (Grade 4 to Grade 8 reading) | -0.211 | 6 |  |  |  |  |
| Rural NAEP performance (Grade 4 and Grade 8, math and reading) | -0.055 | 15 |  |  |  |  |
| Rural NAEP poverty disadvantage | 0.001 | 20 |  |  |  |  |
| Rural advantage for NAEP performance | -0.599 | 12 |  |  |  |  |




* A rank of 1 is most crucial or most urgent.
**See full report for a detailed definition of each indicator.

UTAH - Due to recent urban growth, two of Utah's school districts are no longer classified as rural, making it now the second-least rural state after Rhode Island. School communities are relatively poor and Utah's rural students in poverty score especially lower on NAEP than their rural peers not living in poverty. Instructional spending is low, and fewer than 1 in 25 juniors and seniors has passed an AP exam. Still, overall performance is high on standardized testing, and most students nearing graduation have received dual enrollment credit or took a standardized college entrance exam in the 2015-16 school year.

PRIORITY
RANKING
41


| GAUGE 3: Notable \| Important | Very Important | Crucial |
| :---: | :---: | :---: |
| Educational Policy Context |  |  |
|  | UT | Rank* |
| Rural instructional expenditures per pupil | \$5,387 | 10 |
| Ratio of instructional to transportation expenditures | \$11.49 | 34 |
| Median organizational scale ( x 100 ) | 3,616 | 19 |
| State revenue to schools per local dollar | \$1.68 | 33 |
| Rural adjusted salary expenditures per instructional FTE | NA | NA |

Rural instructional expenditures per pupil


Rural NAEP poverty disadvantage


| GAUGE 4: Fair \| Serious | | Critical | Urgent |
| :---: | :---: | :---: |
| Educational Outcomes |  |  |
|  | UT | Rank* |
| Rural NAEP improvement (Grade 4 to Grade 8 math) | -0.076 | 22 |
| Rural NAEP improvement (Grade 4 to Grade 8 reading) | 0.090 | 38 |
| Rural NAEP performance (Grade 4 and Grade 8, math and reading) | 0.190 | 38 |
| Rural NAEP poverty disadvantage | -0.670 | 5 |
| Rural advantage for NAEP performance | 0.088 | 34 |




[^17]VERMONT - With nearly $55 \%$ of its students attending school in a rural district, Vermont has the highest percentage of rural students of any state. Rural schools and districts are almost all smaller than the national median, school communities tend to be relatively wealthy, and few students have changed residences in the past year. Although Vermont's instructional spending is still among the highest in the country, the average has dropped by $\$ 800$ per rural student over the past three years while the average increased by $\$ 300$ in the rest of the country. Students receive AP credit at almost twice the national rate but are less likely than their rural counterparts in other states to receive dual enrollment credit or take the most common college entrance exams.

| GAUGE 1: Notable | Important | Very Important | Crucial |
| :---: | :---: | :---: | :---: |
| Importance |  |  | 2 |
|  |  | VT | Rank* |
| Percent rural schools |  | 72.3\% | 3 |
| Percent small rural districts |  | 90.0\% | 3 |
| Percent rural students |  | 54.9\% | 1 |
| Number of rural students |  | 48,535 | 40 |
| Percent state education funds to rural districts |  | 51.4\% | 2 |





State revenue to schools per local dollar
\$14.00


| GAUGE 4: Fair Serious | Critical | Urgent |
| :---: | :---: | :---: |
| Educational |  | NA |
| Outcomes | VT | Rank* |
| Rural NAEP improvement (Grade 4 to Grade 8 math) | NA | NA |
| Rural NAEP improvement (Grade 4 to Grade 8 reading) | NA | NA |
| Rural NAEP performance (Grade 4 and Grade 8, math and reading) | NA | NA |
| Rural NAEP poverty disadvantage | NA | NA |
| Rural advantage for NAEP performance | NA | NA |


| GAUGE 5: Fair $\mid$ Serious | Critical | Urgent |
| :---: | :---: | :---: |
| College <br> Readiness |  |  |
|  | VT | Rank* |
| Estimated graduation rate in rural districts | 90.7\% | 32 |
| Percent rural Juniors and Seniors in dual enrollment (males) | 12.3\% | 15 |
| Percent rural Juniors and Seniors in dual enrollment (females) | 21.0\% | 17 |
| Percent rural Juniors and Seniors passing at least one AP exam | 17.5\% | 43 |
| Percent rural Juniors and Seniors who took the ACT or SAT | 39.9\% | 14 |

Percent rural Juniors and Seniors in dual enrollment (males)


* A rank of 1 is most crucial or most urgent.
**See full report for a detailed definition of each indicator.
138 | Why Rural Matters 2018-2019

VIRG|N|A - The approximately 260,000 students enrolled in Virginia's rural school districts have been subjected to some of the least favorable educational policies in the nation. With one in nine rural students having changed residences in the past year; schools and districts among the largest in the nation; and adjusted teacher salaries $\$ 3,000$ below the national rural average, Virginia's rural teachers face substantial challenges. Although overall performance on standardized assessments is relatively strong, performance drops more substantially from grades 4 to 8 than in other states. Virginia's rural students, and especially those living in poverty, have considerably lower
performance on NAEP exams than their non-rural peers and rural students not living in poverty. Fewer than one in three rural Virginia juniors and seniors takes the ACT or SAT each year, but they earn dual enrollment and AP credit at relatively high rates.

| GAUGE 1: | Notable | Important | Very Important | Crucial |
| :--- | :---: | :---: | :---: | :---: |
| Importance |  | 27 |  |  |





| GAUGE 3: Notable \| ${ }^{\text {a }}$ Important | Very Important ${ }^{\text {¢ }}$ Crucial |  | VA | Median organizational scale (x 100) |
| :---: | :---: | :---: | :---: | :---: |
| Educational |  | 3 |  |  |
| Policy Context | VA | Rank* |  |  |
| Rural instructional expenditures per pupil | \$6,220 | 23 |  | 22,188 |
| Ratio of instructional to transportation expenditures | \$9.11 | 13 | $\begin{aligned} & \text { US } \\ & \text { median } \end{aligned}$ | 2,275 |
| Median organizational scale (x 100) | 22,188 | 5 |  |  |
| State revenue to schools per local dollar | \$1.11 | 21 |  |  |
| Rural adjusted salary expenditures per instructional FTE | \$66,656 | 18 |  |  |

Rural NAEP improvement (Grade 4 to Grade 8 math)


| GAUGE 4: Fair $\mid$ Serious | Critical | Urgent |
| :---: | :---: | :---: |
| Educational |  | 4 |
| Outcomes | VA | Rank* |
| Rural NAEP improvement (Grade 4 to Grade 8 math) | -0.234 | 5 |
| Rural NAEP improvement (Grade 4 to Grade 8 reading) | -0.139 | 6 |
| Rural NAEP performance (Grade 4 and Grade 8, math and reading) | 0.136 | 34 |
| Rural NAEP poverty disadvantage | -0.570 | 14 |
| Rural advantage for NAEP performance | -0.079 | 11 |




[^18]WASHINGTON - Nearly two of three rural students in Washington are enrolled in a school district with fewer students than the national median for rural districts. Rural school communities in general are relatively poor, but extreme poverty among students is not as strong as in other states. Washington has seen a surge in residential mobility since the most recent report; only Nevada and Arizona now have a higher percentage of rural students who have changed residences within the past year. Revenue from state sources is well over double the level of local revenue. Performance on standardized tests is on par with the national average, and Washington's rural students improved more from grade 4 to 8 in both reading and math than their rural counterparts in every other state where data exist. With fewer than one in six rural juniors or seniors taking the ACT or SAT each year and a rural graduation rate well below the national average, only Nevada's rural students are less ready for college than Washington's according to these indicators.


| GAUGE 3: | Notable | Important | Very Important | Crucial |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Educational | $\mathbf{4 4}$ |  |  |  |  |  |
| Policy Context | WA |  |  |  |  | Rank* |
| Rural instructional expenditures per pupil | $\$ 6,410$ | 26 |  |  |  |  |
| Ratio of instructional to transportation expenditures | $\$ 10.59$ | 24 |  |  |  |  |
| Median organizational scale (x 100) | 621 | 42 |  |  |  |  |
| State revenue to schools per local dollar | $\$ 2.67$ | 40 |  |  |  |  |
| Rural adjusted salary expenditures per instructional FTE | $\$ 73,627$ | 26 |  |  |  |  |

## State revenue to schools per local dollar



Rural NAEP poverty disadvantage


| GAUGE 4: Fair \| Serious | Critical | Urgent |
| :---: | :---: | :---: |
| Educational Outcomes |  |  |
|  | WA | Rank* |
| Rural NAEP improvement (Grade 4 to Grade 8 math) | 0.416 | 48 |
| Rural NAEP improvement (Grade 4 to Grade 8 reading) | 0.345 | 48 |
| Rural NAEP performance (Grade 4 and Grade 8, math and reading) | 0.038 | 25 |
| Rural NAEP poverty disadvantage | -0.690 | 3 |
| Rural advantage for NAEP performance | -0.093 | 6 |


| GAUGE 5: Fair \| Serious | Critical | Urgent |
| :---: | :---: | :---: |
| College |  | 2 |
| Readiness | WA | Rank* |
| Estimated graduation rate in rural districts | 83.2\% | 7 |
| Percent rural Juniors and Seniors in dual enrollment (males) | 14.7\% | 17 |
| Percent rural Juniors and Seniors in dual enrollment (females) | 22.4\% | 20 |
| Percent rural Juniors and Seniors passing at least one AP exam | 4.7\% | 15 |
| Percent rural Juniors and Seniors who took the ACT or SAT | 16.0\% | 1 |

* A rank of 1 is most crucial or most urgent.
**See full report for a detailed definition of each indicator.
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WEST VIRG\|N\|A - Half of the state's schools are located in rural districts, and West Virginia has seen an increase of over $4 \%$ in the absolute number of rural students in the past three years. Households in the school communities of West Virginia's rural districts make just over twice the poverty threshold, on average. Only one in 12 rural students has changed residences in the past year, but over one in six qualify for specialized education services. West Virginia's statewide consolidation efforts have resulted in large schools, large districts, and burdensome transportation costs for rural districts. Rural teacher salaries are $\$ 4,000$ below the national average, even after adjusting for comparable wages of the rural areas. Not only are West Virginia's rural students performing well below the national average on standardized math and reading tests, but they also experience a greater drop in performance from grade 4 to grade 8 than do their rural counterparts in other states. However, they still graduate at rates just above the national average.

| GAUGE 1: Notable | Important | Very Important \| | Crucial |
| :---: | :---: | :---: | :---: |
|  |  | 19 |  |
| Importance |  | WV | Rank* |
| Percent rural schools |  | 49.6\% | 13 |
| Percent small rural districts |  | 0.0\% | 43 |
| Percent rural students |  | 35.1\% | 7 |
| Number of rural students |  | 95,965 | 25 |
| Percent state education funds to rural districts |  | 37.9\% | 8 |

Percent rural students




| GAUGE 3: Notable \| Important | Very Important | Crucial | WV | Median organizationa scale (x 100) |
| :---: | :---: | :---: | :---: | :---: |
| Educational Policy Context | 11 |  |  |  |
|  | WV | Rank* |  | 11,104 |
| Rural instructional expenditures per pupil | \$6,561 | 29 |  |  |
| Ratio of instructional to transportation expenditures | \$6.48 | 2 | $\begin{array}{r} \text { US } \\ \text { median } \end{array}$ |  |
| Median organizational scale (x 100) | 11,104 | 12 |  | 2,275 |
| State revenue to schools per local dollar | \$2.17 | 39 |  |  |
| Rural adjusted salary expenditures per instructional FTE | \$65,795 | 17 |  |  |

Rural NAEP improvement (Grade 4 to Grade 8 reading)


| GAUGE 4: | Fair |  | Serious |  |
| :--- | :---: | :---: | :---: | :---: |



*A rank of 1 is most crucial or most urgent.
**See full report for a detailed definition of each indicator.

WISCONSIN - Nearly one in five of Wisconsin's students attends school in a rural district. Although only 1 in 11 of these students has changed residences in the past year, this is a $14 \%$ increase since the last Why Rural Matters report three years ago. Funding is more heavily dependent on local revenue than in most other states, and just over $\$ 6,700$ is spent per rural pupil on instruction-roughly $\$ 350$ above the national average for rural students. Wisconsin's rural students perform well on standardized math and reading assessments, and also improve more between 4th and 8th grade on these assessments than do most of their rural counterparts in other states. However, among Wisconsin's rural students, there is a larger NAEP performance gap between rural students in poverty and rural students not in poverty than in most states. Not only do Wisconsin's rural students boast an impressive graduation rate of $92.1 \%$, they are also above the national average on all other indicators of college readiness.

| GAUGE 1: Notable | Important | \| Very Important | | Crucial |
| :---: | :---: | :---: | :---: |
|  |  | 4 |  |
| Importance |  | WI | Rank* |
| Percent rural schools |  | 35.7\% | 24 |
| Percent small rural districts |  | 39.1\% | 27 |
| Percent rural students |  | 18.9\% | 26 |
| Number of rural students |  | 161,455 | 19 |
| Percent state education funds to rural districts |  | 18.4\% | 28 |

Percent rural schools



| GAUGE 3: | Notable | Important | Very Important | Crucial |
| :--- | :---: | :---: | :---: | :---: |
| Educational |  | $\mathbf{2 6}$ |  |  |
| Policy Context |  | WI | Rank* |  |
| Rural instructional expenditures per pupil | $\$ 6,730$ | 30 |  |  |
| Ratio of instructional to transportation expenditures | $\$ 10.74$ | 26 |  |  |
| Median organizational scale (x 100) | 1,359 | 31 |  |  |
| State revenue to schools per local dollar | $\$ 0.78$ | 11 |  |  |
| Rural adjusted salary expenditures per instructional FTE | NA | NA |  |  |

State revenue to schools per local dollar


Rural NAEP poverty disadvantage





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**See full report for a detailed definition of each indicator.
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WYOMING - Two-thirds of Wyoming's rural school districts are larger than the national median, and nearly a quarter of the state's educational funds are directed to rural districts. Only 1 in 12 rural school-aged children lives in poverty and households in the average rural school community earn $280 \%$ of the poverty threshold. After adjusting for comparable wages in Wyoming's rural districts, teachers are paid the equivalent of $\$ 85,117-\$ 15,000$ above the national average for rural districts. Overall, NAEP scores for Wyoming's rural students are above average and are just slightly below those of the students in non-rural districts. Wyoming's rural juniors and seniors are much more likely to receive college credit from dual enrollment than from AP credits, with nearly $35 \%$ of males and $42 \%$ of females taking at least one dual enrollment course and less than 1 in 25 passing an AP exam.


| GAUGE 2: Fair | Serious | Critical | Urgent |  |
| :---: | :---: | :---: | :---: | :---: |
| Student and Family Diversity |  |  |  |  |
|  |  |  | WY | Rank* |
| Rural diversity index |  |  | 19.5\% | 34 |
| Poverty level in rural school communities |  |  | 280\% | 30 |
| Percent rural IEP students |  |  | 14.8\% | 16 |
| Percent of rural school-aged children in poverty |  |  | 8.2\% | 43 |
| Percent rural mobility |  |  | 11.0\% | 21 |


| GAUGE 3: Notable \| Important | Very Important | Crucial |
| :---: | :---: | :---: |
|  |  |  |
| Educational Policy Context | WY | Rank* |
| Rural instructional expenditures per pupil | \$10,632 | 45 |
| Ratio of instructional to transportation expenditures | \$10.44 | 23 |
| Median organizational scale (x 100) | 1,023 | 35 |
| State revenue to schools per local dollar | \$1.47 | 29 |
| Rural adjusted salary expenditures per instructional FTE | \$85,117 | 40 |

Rural adjusted salary expenditures
per instructional FTE
\$85,117


Rural NAEP poverty disadvantage

| GAUGE 4: | Fair | Serious | Critical |  |
| :--- | :---: | :---: | :---: | :---: |




[^19]THE RURAL SCHOOL AND COMMUNITY TRUST
Rural School and Community Trust www-ruraledu.org


THE SCHOOL SUPERINTENDENTS ASSOCIATION


[^0]:    * A rank of 1 is most crucial or most urgent.
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[^1]:    * $A$ rank of 1 is most crucial or most urgent.
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[^3]:    * A rank of 1 is most crucial or most urgent.
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[^4]:    * A rank of 1 is most crucial or most urgent.
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[^6]:    * A rank of 1 is most crucial or most urgent.
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[^7]:    * A rank of 1 is most crucial or most urgent.
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[^8]:    * A rank of 1 is most crucial or most urgent.
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[^9]:    * A rank of 1 is most crucial or most urgent.
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[^10]:    * A rank of 1 is most crucial or most urgent.
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[^14]:    * A rank of 1 is most crucial or most urgent.
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