

Challenge to Lead 2020 Goals for Education

SREB

Kentucky State Progress Report

Looking Closer

2018

Southern
Regional
Education
Board

SREB.org



SREB's Challenge to Lead 2020 Goals for Education

All children **entering school** will exhibit the knowledge and the social and developmental skills needed for success in first grade.

Student achievement for all groups in the **early grades** will exceed state standards and national averages — at rates that close achievement gaps between groups.

Student achievement for all groups in the **middle grades** will exceed state standards and national averages — at rates that close achievement gaps between groups.

Eighty percent of all groups of ninth-graders will graduate from **high school** ready for college and career training. (This likely means more than 90 percent will need to graduate from high school and more than 80 percent will need to meet readiness standards for college and career training.)

Sixty percent of working-age adults will have a **postsecondary** credential: an associate or bachelor's degree, or a career certificate. Public postsecondary institutions will make it a top priority to help states meet state needs by increasing graduates, public service and research.

Increasing percentages of **adults** without high school or postsecondary credentials will pursue opportunities to earn high school alternative certificates, college degrees or career certificates.

Kentucky *Looking Closer*

2018 State Progress Report

on the

Challenge to Lead 2020

Goals for Education

Southern Regional Education Board

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The report is part of the *Challenge to Lead* education goals series. A full listing of the goals is printed on the inside front cover. For more information email jeff.gagne@sreb.org or call (404) 875-9211.

A Message From the President of SREB

Challenge to Lead 2020 Goals for Education, SREB's latest in a series of education goals, has provided benchmarks and timelines for assessing educational progress in our states since 2012. A 2016 update, *Challenge to Lead 2020: Refreshed 2016*, streamlined the goals and aligned them more closely with policy recommendations from four SREB policy commissions. The biennial progress reports help policymakers stay informed on how well their states have performed on key education outcomes, from pre-K through adult learning, and how much progress they are making toward the 2020 goals.

With only two years remaining in the 2020 goals period, it is important that states take a **closer look** at their individual successes and challenges and determine what has worked and what still needs to be done. Each SREB state is different, but rarely does one need to reinvent the wheel to achieve progress. If SREB states work together and share ideas, they can meet their goals.

In looking closer at our **progress** across the region, I am pleased to report growth for SREB states in three key areas:

- **Leading the nation in early childhood education** — SREB states continue to hold leadership in the nation when it comes to pre-K access and quality. In 2017, four of eight states nationwide that enrolled at least half of 4-year-olds in state-funded pre-K were SREB states. Only three states in the nation, including one SREB state, met all 10 nationally recognized standards of program quality for state-funded pre-K that year. Another six SREB states met at least eight of the 10 standards.
- **Impressive gains in eighth grade reading achievement** — While the reading achievement of eighth graders nationwide on NAEP changed little from 2013 to 2017, five SREB states ranked among the top 10 states in the nation for reading gains at the Proficient level.
- **Improving high school progression rates and graduation rates** — The percentage of *ninth graders progressing to 12th grade* in four years increased in *all* SREB states. Eleven SREB states have progression rates within 10 points of the national average. Improving these rates is necessary for continued progress on *high school graduation* rates. In 2016, the SREB region exceeded the national rate in high school graduation for the fourth year. The most recent high school graduation rate for the SREB region was 2 points ahead of the nation. Thirteen SREB states improved their rates from 2015 to 2016. Now it is time to couple this progress with college readiness at the time of graduation.

This report also details where **Kentucky** stands in education. You and your state can take pride in these highlights on key outcome measures and policy implementation.

Notable outcomes in Kentucky

- Fourth graders *outperformed* the nation in reading achievement on NAEP at both the Basic and Proficient levels. They also *outpaced* the region and nation in gains at the Proficient level.
- Fourth graders from low-income families *outpaced* the nation in gains in reading achievement at both levels, narrowing the gaps for them and their peers.



With only two years remaining in the 2020 goals period, it is important that states take a **closer look** at their individual successes and challenges.

A Message From the President of SREB (continued)

- Hispanic eighth graders outpaced the nation in gains in math achievement on NAEP at the Proficient level, narrowing the gap for them and their peers.
- The high school graduation rate exceeded the rate for the nation.
- The percentage of Hispanic working-age adults with bachelor's degrees or higher exceeded the national and regional percentages for their respective peers.

I am encouraged by the progress reflected in all the state progress reports. But I also see four **challenges** in the pages of these reports that warrant all of our attention.

- **High quality pre-K programs are not available to all children who need them.** Pre-K provides a critical foundation for children who would likely fall behind in school without it. While some SREB states lead in pre-K access and quality, others have a long way to go if they want to ensure that high quality programs are available to the children who will benefit from them the most.
- **Most SREB states did not make progress toward the early grades or middle grades targets for NAEP performance between 2013 and 2017.** In 2017, the median SREB state was more than 10 percentage points away from meeting the Basic performance target set for 2020 for fourth graders in both reading and math and more than 15 points away for eighth graders. Students who do not develop strong foundations in reading and mathematics before high school will struggle all through high school and have trouble becoming ready for college and careers.
- **While more students in our region are graduating from high school on time, far too few are ready for postsecondary study when they graduate.** The readiness gap for college and careers shows up once again in the ACT results for the class of 2016. While 86 percent of the class in SREB states graduated from high school on time, only 21 percent of those who took the ACT met its four college-readiness benchmarks. Far too few graduates are prepared for postsecondary work.
- **Despite SREB states' efforts to increase the educational attainment of working-age adults in our region, too many still do not have the high school and postsecondary credentials they need for success in the workplace.** In 2016, 3.8 million adults in SREB states did not have a high school credential, and 19 million did not have a postsecondary credential. If SREB states are serious about educational attainment and job advancement for working-age adults, they will need to provide greater support for adult educational programs.

SREB is committed to working with states to ensure that progress continues. We look to state leaders to draw on strong and effective education policies — like the ones published with the latest *Challenge to Lead 2020 goals*. Together, we can boost student achievement and help SREB states meet their educational, economic and workforce goals.



Dave Spence

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Foreword

Looking Closer is the eighth biennial report to SREB states on their progress in meeting SREB's Challenge to Lead goals for education. SREB provides a customized state progress report for each SREB state. These state reports document progress on both measurable outcomes and state policies. Through effective policy implementation, the goals can help states drive improvements in student achievement, high school graduation, college completion and work force readiness.

SREB's 2002 commission report on goals, **Challenge to Lead Goals for Education**, boldly declared that SREB states could lead the nation in education progress and established ten goals for the region. Between 2008 and 2012, SREB hosted four formal policy commissions and several key study groups. Each made recommendations on essential policies to help states reach the goals.

By 2012, leaders in SREB states could see measurable progress on the 2002 goals, but they knew their work was not finished. So, in 2012 SREB updated the Challenge to Lead goals. This effort resulted in six revised goals to guide SREB states through 2020. State leaders in the SREB region then linked the recommended policies to the goals to ensure that their best ideas would guide state efforts and promote increases in student achievement. The recommended policies can help states set the stage for success. But implementation is key, and states should evaluate their efforts on a continuous basis to ensure that their intentions produce the results they want.

SREB promised to help states achieve the Challenge to Lead goals by monitoring, measuring and reporting on outcomes for each state and by benchmarking implementation of recommended policies. The six goals for 2020 focus on the student — from prekindergarten through postsecondary education and into the adult years. The biennial reports showcase progress on the educational milestones students must reach at each stage. They also pay attention to the transitions between stages. Research shows that many students drop out of school during these transitions because they are not fully prepared for success at the next educational level.

Since the 2014 biennial progress reports were published, three SREB commissions have developed and presented recommendations — including ones that can be linked to the Challenge 2020 goals. These commissions addressed career and technical education, community colleges and early childhood education. The 2018 state progress reports include closer looks at these policies.

What to expect in this report: The progress reports begin with demographic and economic perspectives to situate SREB states in their regional and national contexts. The South's overall population growth and particularly school enrollment growth have outpaced the rest of the nation in the last decade. The region has become more racially and ethnically diverse during the same period. And it continues to recover from a long economic recession. These perspectives provide a critical backdrop for the remainder of the report — underscoring the importance and difficulty of making educational gains in SREB states.

Reporting on outcome measures continues in this report. Policymakers have come to expect SREB to report on such key measures as results on the National Assessment of Education Progress, ninth-grade enrollment bulge, high school graduation rates and college enrollment rates of recent high school graduates. These particular measures give a picture of progress on how well current students are thriving as they move through school and what challenges SREB states face in helping students make critical education transitions. Whenever possible, the reports show outcome measures in national and regional contexts and over time so that policymakers can determine how students in their states stack up with students elsewhere and whether they are making gains.

Through effective policy implementation, the goals can help states drive improvements in student achievement.

Policymakers will also find information about whether — and how — important policies are implemented in their states. In several instances, the elements of these policies, as they relate to the goals, are laid out in clear tables. In other cases, color-shaded maps of the region allow policymakers to compare states on these policies. These tables and maps now include new elements recommended by the latest SREB commissions. They give policymakers an indication of where their states stand on these critical, emerging issues.

While the 2020 finish line is nearing, policymakers still have time to **look closer** and measure key indicators of progress in their states, including the following.

- How many students in your state have access to high quality prekindergarten?
- How many students in your state are ready for first grade on day one?
- How many students can read proficiently no later than fourth grade? What about English language learners and those from low-income families?
- How are all eighth graders performing in reading and math?
- What percentage of eighth graders are successfully making the transition to high school?
- As high school graduation rates have improved, have gaps narrowed for students of racial and ethnic groups, for students from low-income families and for students with disabilities?
- What percentage of high school graduates measure up on benchmarks of college and career readiness?
- What percentage of recent high school graduates are enrolling in postsecondary institutions?
- What percentage of entering college students make it to their sophomore year?
- What percentage of high school graduates are eventually earning a credential?
- How many working-age adults in your state have some type of postsecondary credential?
- How many working-age adults in your state do not have a high school credential?

For policymakers who do not like the answers to these questions — all available in this report — it is not too late to adjust policies and programs that will make a difference. It's time to **look closer** and ensure that as many students as possible measure up by 2020 and thereafter. Chances are, SREB's policy commissions have already made recommendations that can help. It's time to be sure they are implemented well.

SREB states have already come a long way. In the past dozen years, they have made gains in publicly funded pre-K access, NAEP achievement in reading and math, and high school graduation rates. For the most part, these gains resulted from the efforts of inspired SREB state leaders who championed research and policy. They implemented important policies with good planning that called for state and local support — and they were committed to putting their plans in place and achieving their goals over the long haul. SREB will continue to help states, especially as they close in on the finish line for the Challenge 2020 goals, by keeping its commitment to measure outcomes and benchmark progress on policy.



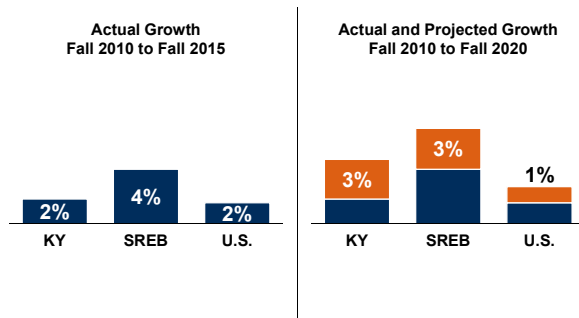
Demographics

The Challenge to Lead 2020 goals are ambitious, targeting high achievement for *all* groups of students and emphasizing the need for states to close stubborn achievement gaps. Efforts to meet these goals are complicated by rising enrollment and dynamic population changes: more public-school students, more families struggling economically, and more students whose primary language is not English. At the same time, states are slowly recovering from a historic economic downturn. Understanding the challenges these factors present for schools and colleges is the key to overcoming them.

The SREB region has been home to more than a third of the nation's total population for decades, and growth in the region represented more than half of the nation's total population growth between 2005 and 2015. The overall population in SREB states rose 5 percent from 2010 to 2015, so it is no surprise that **public elementary and secondary school enrollment** also grew. Enrollment in SREB states increased by 4 percent over this period, faster than the 2 percent growth in enrollment nationwide.

Enrollment Changes

Public Elementary and Secondary Enrollment in Kentucky



Source: SREB, based on data from the National Center for Education Statistics

Thirteen SREB states had higher enrollment in fall 2015 than in fall 2010, while three states saw enrollment decline. The changes ranged from a 7 percent increase to a 2 percent decrease. Looking ahead, national public school enrollment is projected to increase at a slightly slower rate from 2015-16 to 2020-21. Overall enrollment in the SREB region is expected to increase by 3 percent during this period, though three SREB states could see continuing declines in enrollment through fall 2020. More students means more schools, teachers, buses and books — in short, larger education budgets just to meet the growing demand for basic education services.

In Kentucky:

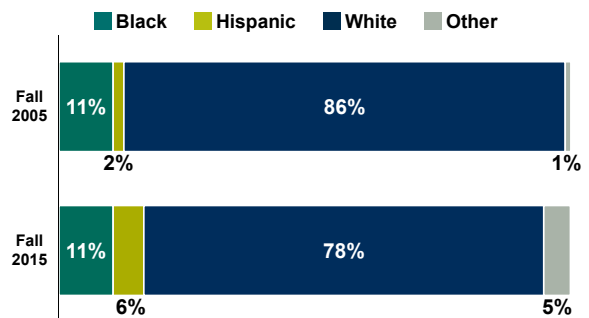
- Public school enrollment grew at a slower rate than in the SREB region as a whole from 2010 to 2015, but it is expected to keep pace with the region between 2015 and 2020. About 687,000 students were enrolled in Kentucky's public schools in 2015.
- The proportion of black students enrolled in public schools remained the same from 2005 to 2015, while the proportion of white students dropped and that of Hispanic students grew.
- The percentage of children living in poverty shrank by 2 percentage points from 2011 to 2016.

Coupled with the overall growth in public school enrollment is increased diversity over the past decade. In fall 2015, 49 percent of public school students in the United States were white — down 8 percentage points from fall 2005. The proportion of black students declined by almost 2 points, to 16 percent, from fall 2005 to fall 2015. The proportion of Hispanic students rose 6 points, to 26 percent, over the period.

All SREB states mirrored the nation in **increased student diversity** from 2005 to 2015. In fall 2015, black and Hispanic students represented nearly half (49 percent) of public school enrollment in the SREB region. Hispanic students, the fastest-growing group, increased as a proportion of student enrollment in the region by 18 points during this time. These students — many from low-income households or with limited English-language proficiency — will likely need extra support to graduate from high school ready for college and careers.

Public Elementary and Secondary Enrollment

Racial Composition in Kentucky



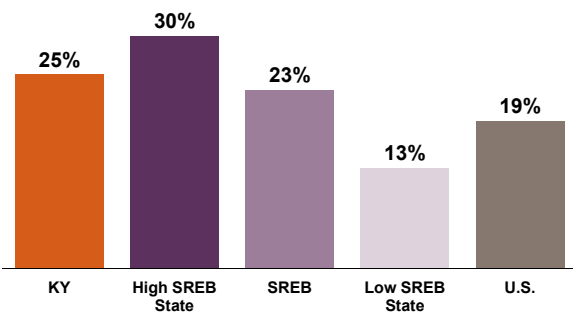
Source: SREB, based on data from the National Center for Education Statistics

The U.S. Department of Education projects that this trend of rising diversity will continue. The proportion of white public-school students in the nation is expected to continue to decline from 2015 through 2026. On the other hand, the proportions of Hispanic students, Asian or Pacific Islander students, and students who identify as multiracial are projected to increase further.

As the nation continues to recover from the last recession, child poverty rates have finally begun to fall. Still, more than 14.1 million children under 18 years old in the United States lived in poverty in 2016 — about 19 percent of all children in the population. More than 43 percent of all children living in **poverty** in the nation resided in SREB states. The U.S. Census Bureau measures poverty by income and household size. The poverty threshold in 2016 was equivalent to \$24,250 in annual income for a household of four.

Children Living in Poverty

Percentage of Residents Under 18 Years Old in Poverty, 2016



Source: The Annie E. Casey Foundation

The percentages of children living in poverty decreased from 2011 to 2016 in both the nation and the SREB region. These percentages fell in 13 SREB states and were unchanged in the remaining three. However, 13 SREB states still had higher childhood poverty rates than the nation in 2016. These rates ranged from 13 to 30 percent of all children across the SREB region.

Despite welcome decreases in poverty rates, the percentage of students living in **low-income households** in the nation rose from 48 percent in 2011 to 50 percent in 2016. This percentage grew from 53 percent to 57 percent in the SREB region during this period. In fact, it rose in all but four SREB states, ranging from a high of 75 percent of students to a low of 37 percent.

Federal law defines *low income* as eligibility for free or reduced-price meals in the National School Lunch Program. This program is available to students from households with incomes up to 185 percent of the annual poverty level, or up to \$44,863 for a household of four during the 2015-16 school year.

Free or Reduced-Price Meals

Percentage of Students Eligible in Kentucky, 2016



Source: SREB, based on data from the National Center for Education Statistics

Why does low family income matter? Research indicates it can cause frequent family relocation and lead to higher absenteeism, disrupting student learning. It can also result in poor nutrition, inadequate health care and weak family engagement with schools — all factors that affect student achievement.

Two other student groups — English language learners and students with disabilities — also face challenges that can affect their academic achievement. In fall 2015 in the SREB region, 10 percent of students were classified as English language learners and 11 percent of students received special education services. The students in these groups require specialized services and support to succeed in school. Researchers have found that 80 to 90 percent of students with a learning disability are affected by dyslexia. These students will struggle with reading, in particular.

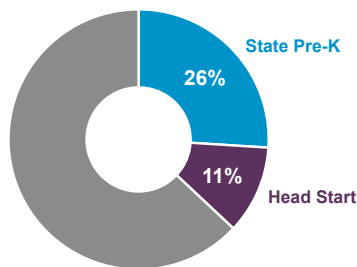
The good news is that the economy is again growing and more jobs are available. Increased enrollment in public schools, however, means that the number of students who need special services and support is also increasing. Policymakers will need to seek cost-effective program and policy solutions to meet the needs of all students in their states.



Early Learning

The Challenge to Lead 2020 goals call for all children entering school to exhibit the knowledge and skills needed for success in first grade. This goal can be achieved by increasing **access** to pre-K and kindergarten and ensuring the **quality** of these programs. If young children experience high-quality early learning programs, they are more likely to enter first grade ready to learn, and their chances for success throughout school are greatly improved.

Enrollment in Publicly Funded Pre-K Programs
4-Year-Olds in Kentucky, 2016-17



Source: National Institute for Early Education Research

Historically, SREB states have led the nation in pre-K access for 4-year-olds. By 2015, all SREB states had state-funded programs, and Georgia and Oklahoma were the first states in the nation to make pre-K universally available. These state programs extend access beyond that provided by federally funded Head Start and special education pre-K programs. Between 2007 and 2017, the percentage of 4-year-olds enrolled in state-funded pre-K rose in 14 SREB states. Nine states nationwide enrolled at least half of 4-year-olds in state-funded pre-K during the 2016-17 school year, including four SREB states.

States in the SREB region still face the challenge of providing earlier access to pre-K programs. Research underscores the importance of two years of pre-K for children at risk of struggling in school. Eight SREB states enrolled 3-year-olds in their state programs in 2016-17, and four enrolled them at rates at or above the national rate of 5 percent. However, only two states in the region served more than 10 percent of their 3-year-olds.

While access to pre-K is important, quality is the key to achieving lasting gains for young children. NIEER, The National Institute for Early Education Research, has identified **10 standards of quality**, or benchmarks for

ensuring high structural and process quality for pre-K programs. Aspects of *structural quality* include class size limits, low child-to-staff ratios, and state monitoring requirements.

NIEER revised its standards in 2017 to reflect new research on the importance of *process quality*, which is closely related to instruction, learning and long-term academic gains. Program elements that promote it include learning standards aligned through grade three, regular observations of classroom quality, and well-qualified teachers who receive ongoing coaching.

Alabama and North Carolina were the first states in the nation to meet all 10 of the previous NIEER standards. Alabama is one of only three states nationwide that met all 10 of the revised standards in the 2016-2017 school year; another two SREB states met nine of these standards.

The 2020 goals emphasize strong **teacher qualifications** and continuing professional development for early learning teachers. Research shows that pre-K teachers who have a bachelor's degree and specialized training in early childhood education tend to produce better outcomes for their students. Assistant pre-K teachers need the Child Development Associate credential. Ongoing, hands-on professional development — at least 15 hours per year — is also important for all classroom teachers.

Despite these findings, few pre-K teachers and their assistants have the degrees, credentials and training they need to be prepared for their roles. Four of the 10 NIEER standards of quality spell out minimum requirements in these areas. Alabama and Georgia were two of just

In Kentucky:

- From 2006-07 to 2016-17, state-funded pre-K enrollment for 4-year-olds decreased by 4 percentage points.
- In 2016-17, approximately 36 percent of 4-year-olds were enrolled in publicly funded prekindergarten programs.
- NIEER reported that the state pre-K program met seven of the 10 revised standards of quality for pre-K in 2016-17, including two of the four teacher standards.

four states in the nation that met the four revised NIEER teacher qualification standards in 2016-17.

A 2017 SREB policy report, *Ready to Read, Ready to Succeed: State Policies That Support Fourth Grade Reading Success*, stresses that kindergarten is a critical link between early childhood and the early grades, especially for children at risk of academic struggles. As expectations for later grades have increased, so has the importance of kindergarten as a transition point to help young children build on pre-K gains and be prepared for success in elementary school and beyond.

Research shows that children who attend full-day kindergarten programs, compared with half-day programs, make more academic progress during the kindergarten year and are therefore better prepared for first grade. Districts often choose to offer full-day programs even in states where they are not required. But the minimum number of instructional hours for full-day kindergarten programs varies widely across SREB states — from as few as 680 annual hours to as many as 1,260. Programs with more instructional hours tend to be more effective at preparing kindergartners for the early grades.

Researchers also find benefits for smaller class sizes in the earliest school years. Policymakers in nearly every SREB state have set class-size or student-to-teacher ratio maximums for kindergarten classrooms. These maximums ranged from 18 to 30 students per kindergarten teacher in 2017; the median SREB state allowed no more than 22 kindergartners per teacher.

Developmentally appropriate assessment in kindergarten provides important information for teachers and for states. A readiness assessment at kindergarten entry can help teachers plan instruction for the varying needs

of their students. Screenings can identify the one in 10 children who may have dyslexia and need early reading intervention before they fall behind. As of fall 2018, nine SREB states require a kindergarten entry assessment, and four more states require an assessment of literacy and numeracy skills. Six SREB states require dyslexia screening.

Teacher Quality in State-Funded Pre-K

Kentucky, 2017

NIEER Standard (Revised 2017)	State Required
Lead teacher has a bachelor's degree	✓
Lead teacher has specialized training in early childhood development	✓
Assistant teacher has the Child Development Associate credential or equivalent	
Teaching staff receive ongoing coaching and at least 15 hours/year of professional development	

Source: National Institute for Early Education Research

In 2015, SREB's Commission on Early Childhood Education published *Building a Strong Foundation: State Policy for Early Childhood Education*. The report emphasizes that pre-K and kindergarten provide the foundation for later learning, especially for at-risk children. It also urges SREB states to make early investments to prepare children for school so they can reap sizeable benefits later. If states commit to the report's recommendations, the SREB region is likely to continue making progress in improving access to high-quality early learning programs — thereby ensuring that more children have a solid start in school.

Kindergarten Policies in Kentucky

Policy Elements	Status	Comments
Minimum amount of instructional time for kindergarten	1,062 hours per year — no more than 7 hours per day for at least 170 days	
Maximum number of students per teacher in kindergarten classrooms	24	LEAs may apply for exemption allowing up to two additional students, but classroom must have an instructional aide.
Requires comprehensive early childhood learning and development assessment at kindergarten entry	✓	Requires <i>BRIGANCE® Early Childhood Kindergarten Screens III</i>
Requires screening for dyslexia in kindergarten		

Source: SREB analysis of state documents and Center on Enhancing Early Learning Outcomes



Early Grades

Challenge to Lead 2020 goals call for 90 percent of fourth graders to score at or above the Basic level in reading and math on NAEP, the National Assessment of Educational Progress. They also call for the percentages of fourth graders scoring at or above the Proficient level in these subjects to increase regularly — and ultimately exceed national averages. The NAEP Proficient level is most closely associated with college and career readiness.

Known as the Nation's Report Card, NAEP is a series of exams measuring student achievement in specific subjects and grades. These exams are given every two years, most recently in 2017.

In **reading**, the percentages of fourth graders in the nation and SREB region scoring at or above the NAEP **Basic** level declined from 2013 to 2017. During these years, the region's loss — 2 percentage points — exceeded the loss in the nation. Still, three SREB states saw growth during the period. Although no SREB state reached the 90 percent target in 2017 for fourth graders scoring at or above the Basic level, three SREB states reached 70 percent or more.

Overall growth in the region in the percentage of fourth graders scoring at or above the **Proficient** level in reading was slower than that of the nation from 2013 to 2017. Ten SREB states increased the percentage of students scoring at or above the Proficient level, and five of these outpaced the nation in growth. In 2017, six SREB states had a greater percentage of students scoring at or above Proficient than the nation.

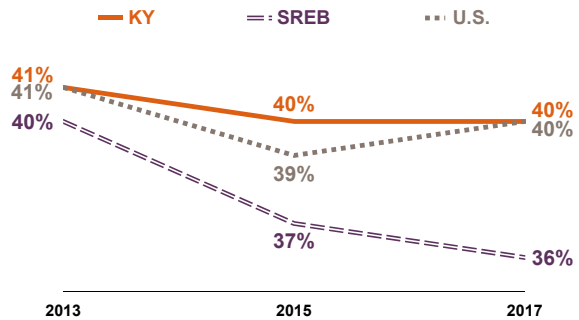
In **math**, the percentage of fourth graders in the nation scoring at or above the NAEP **Basic** level decreased

from 2013 to 2017; the percentage in the SREB region decreased nearly twice as much — a drop of 6 percentage points. While no SREB state reached the 90-percent target for students scoring at or above Basic in math, six states exceeded 80 percent.

Despite overall decreases in the percentages of fourth graders scoring at or above **Proficient** in math in both the region — 3.5 points — and the nation, fourth graders in six SREB states improved their performance from 2013 to 2017. Six SREB states also had a greater percentage of fourth graders scoring at or above Proficient than the nation in 2017.

4th Grade NAEP Math

Percentage Scoring At or Above Proficient in Kentucky, 2017



Source: National Center for Education Statistics

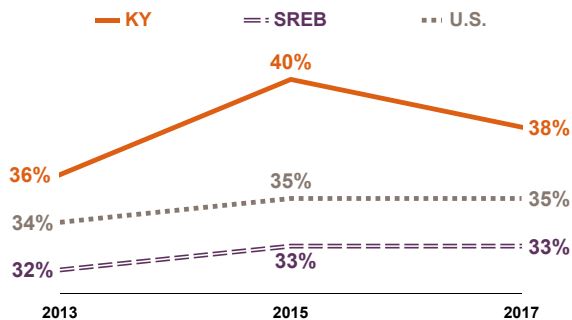
The Challenge to Lead 2020 early grades goal emphasizes the need for SREB states to close NAEP performance gaps for students of racial and ethnic groups, for those from low-income households, and for those who are English language learners.

At the NAEP Proficient level in 2017, black fourth graders in SREB states made greater gains than their white and Hispanic peers in reading and lost less ground than their peers in math. From 2013 to 2017, the achievement gap for black students and their white peers in the SREB region narrowed in both reading and math by about half a percentage point. However, the gaps for Hispanic students widened, by 2 percentage points in reading and 1 point in math.

Academic outcomes related to household income contribute to some of the largest and most pervasive achievement gaps across the nation and SREB region. In **reading**, the achievement gap for fourth graders from low-income families and all other fourth graders in the

4th Grade NAEP Reading

Percentage Scoring At or Above Proficient in Kentucky, 2017



Source: National Center for Education Statistics

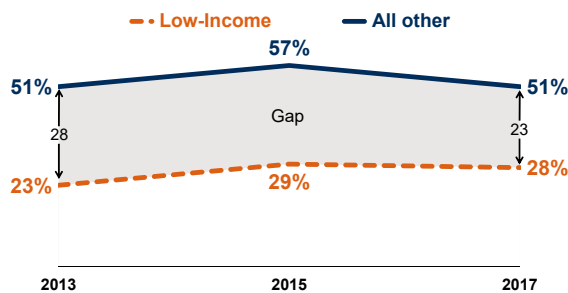
In Kentucky:

- In reading, the percentages of black and white students scoring at or above Proficient on NAEP rose from 2013 to 2017, to 16 percent and 41 percent, respectively. The percentage of Hispanic students scoring at that level declined over the period, to 27 percent.
- In math, the percentages of black, white and Hispanic students scoring at or above Proficient declined from 2013 to 2017, to 15 percent, 45 percent and 23 percent, respectively.

region scoring at or above the Basic level on NAEP narrowed by 2 percentage points from 2013 to 2017, shrinking in 10 SREB states. The gap at the Proficient level or above was smaller in nine SREB states in 2017, narrowing by 1 percentage point overall in the region from 2013. In **math** at the Basic level, the regional gap between income groups widened by 2 percentage points, but the gap at the Proficient level shrank by 2 points. National trends were similar.

4th Grade NAEP Reading Gap

Percentage Scoring At or Above Proficient in Kentucky



In **math**, the gap was unchanged, at 28 points in 2017. The percentages for each income group were also unchanged over the period.

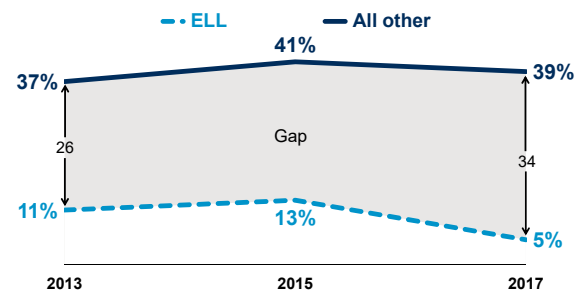
Source: National Center for Education Statistics

English language learners often enter school with little to no exposure to the English language and struggle in U.S. classrooms, especially in subjects that are reading-dependent. This group is projected to account for an increasing proportion of enrollments in SREB states in the immediate future. In 2017, these fourth graders in SREB states outperformed their national peers in **reading** by a fraction of a percentage point at both the

Basic and Proficient levels. Significant achievement gaps persist between them and their classmates. In reading, this gap in SREB states widened slightly from 2013 to 2017 at both the Basic and Proficient levels. In math, the gap between English language learners and their classmates in the region grew by 4 percentage points at the Basic level and was largely unchanged at Proficient.

4th Grade NAEP Reading Gap

Percentage Scoring At or Above Proficient in Kentucky



In **math**, the gap widened by 6 percentage points, to 29 points in 2017. The percentage for each group decreased over the period.

Source: National Center for Education Statistics

Despite growing enrollments, demographic changes and the persistence of achievement gaps, some SREB states made promising gains in reading and math achievement between 2013 and 2017. Fourth graders in Mississippi made significant progress in both subjects and at both benchmark levels. Some SREB states closed performance gaps between student groups by as many as 16 percentage points. Even so, many SREB states still have a high proportion of school-aged children considered at risk of falling behind and dropping out of school. It is crucial that states intervene to help these students meet standards and reach higher academic levels.

The 2015 report of the SREB Early Childhood Commission, *Building a Strong Foundation: State Policy for Early Childhood Education*, emphasized the significance of reading proficiency in the early grades. Research suggests that persistent language gaps develop in the first months of life. These early language and literacy deficits lay the foundation for later reading problems. By the end of third grade, a child who is not reading proficiently is four times more likely not to graduate from high school on time than a child who can read proficiently. States should monitor each child's early language and literacy development from prekindergarten through at least the third grade, thereby providing more children the skills they need to flourish later in school.



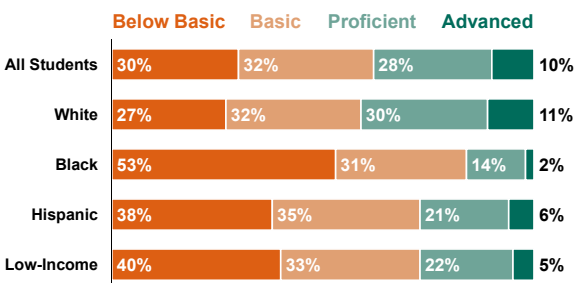
Early Grades

A focus on college and career readiness has pushed states to help more students reach the NAEP Proficient level in reading and mathematics. Performance at this level means students are on track for college and careers. Understanding a state's challenges in bringing more students to a higher level requires a closer look at *all* the data. Performance at the Basic level indicates partial mastery of the academic skills necessary for success in the next grade. Helping students rise from Basic to Proficient on NAEP is critical, but an intermediate step is often helping them improve from below Basic to Basic.

While 33 percent of fourth graders in the median SREB state performed at or above the Proficient level on NAEP in reading in 2017, another 36 percent fell **below Basic**. These students did not demonstrate even partial mastery of grade-level skills. They are far from the target reading benchmark and are likely to struggle in future grades even if provided with extra support. A significant proportion of these students may have dyslexia and need specialized instruction to improve in reading.

4th Grade NAEP Reading

Results by Performance Level in Kentucky, 2017



Source: National Center for Education Statistics

Overall percentages of fourth graders performing below Basic on NAEP reading hide large gaps between student groups. While 24 percent of white fourth graders in the median SREB state fell below Basic in 2017, more than half of black students — 51 percent — performed at this level, as did 44 percent of Hispanic students. The gap between students in different income groups was also large: 45 percent of fourth graders from low-income families performed below Basic, compared with 19 percent of their more affluent peers. These large performance gaps call out to states and schools to do more to support all students in the early grades, and especially those most at risk of academic struggles.

SREB began comparing student results on state-adopted or state-developed assessments to NAEP results in 2005 to help policymakers better understand how their state assessment results compare in a national context. When the percentage of students scoring at or above the level considered proficient on state assessments is close to the percentage scoring at or above NAEP Proficient, the standards, cut scores and reporting categories of that state are likely to accurately indicate college and career readiness. Likewise, similar percentages of students scoring below a basic level of achievement on state assessments and NAEP indicate that states are accurately identifying the students who need the most support.

4th Grade Reading/ELA Results

Kentucky, 2017

	Assessment	
	State	NAEP
Below Basic	22%	30%
At or Above Proficient	50%	38%

Sources: National Center for Education Statistics and Kentucky Department of Education

In 2017, a higher percentage of fourth graders performed at or above the proficient level on state-adopted assessments of **reading** than at or above the Proficient level on NAEP in 15 SREB states. The gaps in these percentages between state and NAEP results ranged from 2 to 34 percentage points. A smaller proportion of students performed below basic on state assessments than below the Basic level on NAEP in 15 SREB states, too; this gap ranged from 4 to 34 percentage points. Only one state in the SREB region — Maryland — had gaps of 5 percentage points or fewer at both levels.

States in which students' performance on NAEP is very different from their performance on state assessments are less likely to be able to accurately measure the proportion of students who are ready for college or careers. They may also underestimate the proportion of students struggling to acquire academic skills and fail to provide the support these students need.

Education Technology

To reach their education goals, SREB states need to ensure that students have access to technology, digital instructional materials and online learning. States also need to ensure that teachers have training to help students use these resources and tools effectively.

Open educational resources, or OER, are now an essential part of today’s technology ecosystem. OER, according to the Hewlett Foundation, are “teaching, learning, and research resources that reside in the public domain or have been released under a special copyright that permits their free use and re-purposing by others.” OER help schools and districts make affordable, up-to-date and relevant instructional materials available.

OER advances are possible with Creative Commons licenses, which can substitute for traditional copyrights when authors permit. They give teachers greater flexibility in adopting resources for their courses. They also provide a middle stage between free and paid options. Authors can waive fees for use of the materials, but they can still require citation for use, and they can hold or waive other rights, such as for reuse, sharing or adapting the work.

Supportive state policies provide cost savings for a broad array of OER, copyrighted textbooks and digital content in all coursework. Such policies allow more schools and teachers access to inexpensive materials that are up-to-date. This means that students will be better prepared for 21st century job demands.

Several SREB states have digital content repositories that contain OER content. SREB’s 2017 report, *Alignment of Instructional Materials*, reported that half of SREB states participated in multi-state OER initiatives. The most effective initiatives align materials to state standards to reduce the variability in the quality of instruction across classrooms and to boost student achievement.

Adoption of OER is stalled in some states by outdated practices which stand in the way of the new. Often purchasing processes are written for physical instructional materials and do not account for digital ones. Sometimes the state’s review process is too slow for the rapid advances in digital content. By the time they can review new material for purchase it is old. Sometimes state processes do not provide for aligning content with state curriculum standards, which results in a failure to adopt all the supplementary and complementary materials for the primary content.

What OER implementation policies do states need to adopt and support statewide?

- Digital OER along with other OER statewide
- Purchasing contract language appropriate for OER digital content
- Teacher professional development on using, locating, editing and sharing OER
- Technical support for teachers in using OER in the classroom
- Development of materials that complement OER such as test banks, learning activities, and lesson plans

K-12 Digital Instruction Policies in SREB States

Policies	AL	AR	DE	FL	GA	KY	LA	MD	MS	NC	OK	SC	TN	TX	VA	WV
Definition of instructional materials includes digital materials	✓	✓		✓		✓	✓		✓	✓	✓	✓	✓	✓	✓	
Review of instructional materials includes open educational resources						✓	✓	✓					✓	✓		✓
Allows for implementation of digital instructional materials		✓		✓	✓	✓	✓	✓	✓			✓		✓	✓	✓
Requires implementation of digital instructional materials		✓		✓			✓			✓						✓
Has a digital learning plan and digital learning standards for students	✓				✓	✓	✓	✓		✓		✓			✓	✓
Has repositories that include open educational resources.	✓						✓	✓		✓				✓	✓	✓

Source: State Education Technology Directors Association, 2017



Middle Grades

Like the target set for fourth graders, Challenge to Lead 2020 calls for 90 percent of eighth graders to score at or above the Basic level on NAEP in reading and math. It also calls for percentages of these students scoring at or above the Proficient level to increase regularly, ultimately exceeding national percentages. The NAEP Proficient performance level is closely associated with college and career readiness.

In 2017 no SREB state reached the 90 percent target of eighth graders scoring at or above Basic in reading or math on NAEP; neither did the nation. Still, three SREB states had higher percentages of eighth graders who scored at or above the Basic level in reading than the nation, and two states beat the nation in math.

In Kentucky:

- In reading, the percentage of black students scoring at or above Proficient on NAEP rose from 2013 to 2017, to 16 percent. The percentages of white and Hispanic students scoring at that level declined over the period, to 37 percent and 28 percent, respectively.
- In math, the percentage of Hispanic students scoring at or above Proficient on NAEP rose from 2013 to 2017, to 21 percent. The percentages of black and white students scoring at that level declined over the period, to 9 percent and 32 percent, respectively.

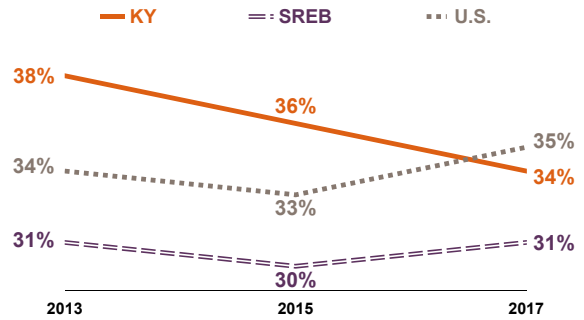
From 2013 to 2017, the percentage of eighth-grade students in the SREB region scoring at or above the **Basic** level in **reading** fell by 3 percentage points; this percentage fell by 1 point in the nation. Four SREB states made gains, led by a 2-percentage point increase in Mississippi.

The percentage of eighth graders in the SREB region scoring at or above the **Proficient** level on NAEP in reading fell by 1 percentage point between 2013 and 2017. Still, nine SREB states saw improvement at this performance level, and eight states outpaced the nation in gains over the period. In four SREB states, a greater percentage of eighth graders scored at or above the Proficient level in 2017 than in the nation.

In **math**, middle graders' performance fell in both SREB states and the nation from 2013 to 2017. The percentage of eighth graders scoring at or above the NAEP **Basic** level dropped by 5 percentage points in the SREB region

8th Grade NAEP Reading

Percentage Scoring At or Above Proficient in Kentucky



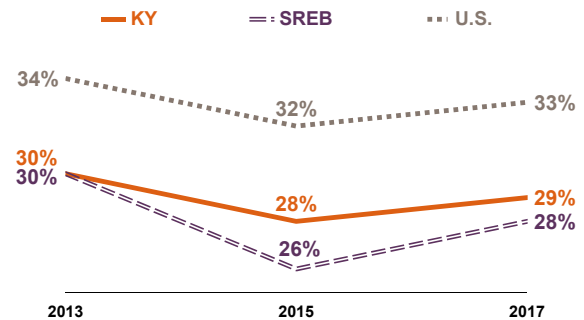
Source: National Center for Education Statistics

and 4 points in the nation during the period. Every SREB state lost ground between 2013 and 2017, leaving the region further from the 90-percent target for eighth graders in math.

Percentages of eighth graders scoring at or above the **Proficient** level in math fell by 2 percentage points in the SREB region and 1 point in the nation from 2013 to 2017. Six SREB states increased the percentage of eighth graders scoring at the Proficient level during the period. In 2017, two SREB states had greater percentages of eighth graders at the Proficient level in math than the nation.

8th Grade NAEP Math

Percentage Scoring At or Above Proficient in Kentucky

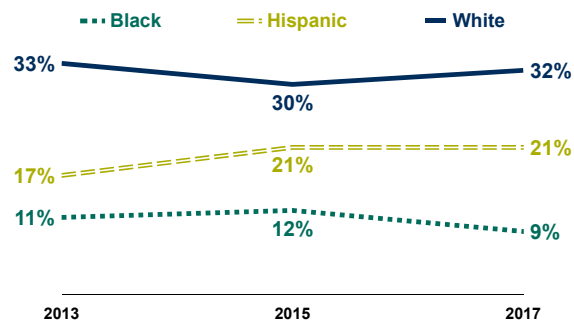


Source: National Center for Education Statistics

The Challenge to Lead 2020 goal for middle graders emphasizes the need for SREB states to close achievement gaps for all groups of students — including those of racial and ethnic groups, from low-income households, and with disabilities.

8th Grade NAEP Math

Percentage Scoring At or Above Proficient in Kentucky



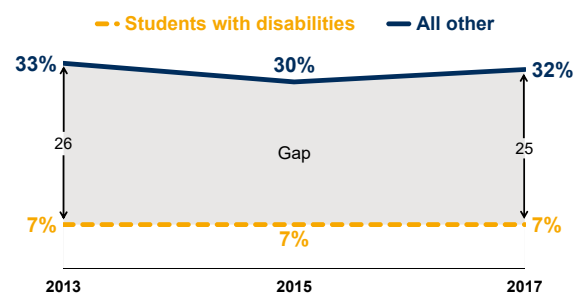
Source: National Center for Education Statistics

White eighth graders in SREB states outperformed their black and Hispanic peers in both reading and math at both the NAEP Basic and Proficient levels in 2017. From 2013 to 2017, the achievement gap in **reading** at the Proficient level for black students and their white peers in the SREB region widened by 2 percentage points; it was unchanged in **math**. These gaps for Hispanic students and their white peers in the region widened by 2 and 3 percentage points, respectively.

The gap in **reading** at the Proficient level for eighth graders from low-income families and all other students in the SREB region narrowed by nearly 2 percentage points from 2013 to 2017. Twelve SREB states reduced the gap — three of them by 5 or more percentage points. This gap in **math** was unchanged in the nation but narrowed by 2 percentage points in the SREB region. Despite this progress, substantial gaps for eighth graders

8th Grade NAEP Math Gap

Percentage Scoring At or Above Proficient in Kentucky



In **reading**, the gap narrowed by 4 percentage points, to 29 points in 2017. The percentage for students with disabilities increased, while the percentage for all other students decreased.

Source: National Center for Education Statistics

from low-income families continued in all SREB states in 2017, ranging from 14 to 32 percentage points on NAEP in reading and 18 to 35 percentage points in math.

For students with disabilities in SREB states, achievement gaps with their classmates continued in 2017 on NAEP. These gaps in **reading** widened at the Proficient level from 2013 to 2017 and remained about the same at the Basic level. In **math**, eighth graders with disabilities narrowed the gap by 1 percentage point at both the Basic and Proficient levels over the period. Performance on NAEP in reading and math for eighth graders with disabilities in the SREB region continued to lag behind that of their national peers in 2017.

Despite growing enrollments and demographic changes in public schools, some SREB states made promising gains in reading achievement on NAEP and narrowed long-standing reading and math achievement gaps between student groups from 2013 to 2017. Even so, gaps remain in all 16 SREB states. Too many states have a high proportion of middle grades students considered at risk of falling behind or dropping out of high school. It is crucial that states intervene to help these students meet standards and reach higher academic levels.

Just as reading proficiency is a stumbling block for many children in the early grades, math mastery often becomes a barrier to student success in the middle grades. The root of academic problems often extends back to children's first years in school. SREB has a long record of supporting state efforts to align math curricula so students are ready for middle-grades and high school math.

Studies indicate that algebra is a critical building block for math success in high school. Challenge to Lead 2020 calls for all students to pass Algebra I no later than ninth grade, and preferably in eighth grade. Nevertheless, the 2017 NAEP results indicate that too many SREB states have not sufficiently raised math achievement for most middle graders, and too many students still leave middle school poorly equipped for success in algebra.

The Challenge to Lead 2020 middle-grades goal calls for stronger standards, better alignment of standards and curricula, effective professional development for teachers, attention to STEM (science, technology, engineering and math), and access to technology that promotes learning. With these elements in place, middle-grades students are more likely to be successful in high school and beyond.



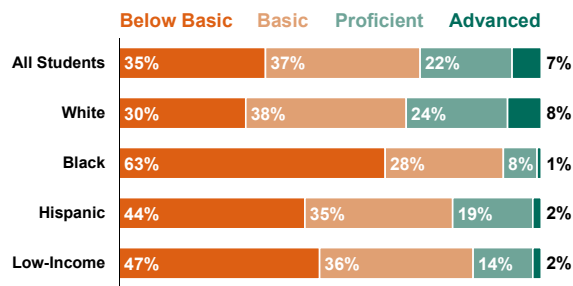
Middle Grades

A focus on college and career readiness has pushed states to help more students reach the NAEP Proficient level in reading and mathematics. Performance at this level means students are on track for college and careers. Understanding a state's challenges in bringing more students to a higher level requires a closer look at *all* the data. Performance at the Basic level indicates partial mastery of the academic skills necessary for success in the next grade. Helping students rise from Basic to Proficient on NAEP is critical, but an intermediate step is often helping them improve from below Basic to Basic.

While 28 percent of eighth graders in the median SREB state performed at or above the Proficient level on NAEP in math in 2017, another 34 percent fell **below Basic**. These students did not demonstrate even partial mastery of grade-level skills. They are far from being prepared for high school math classes and are likely to struggle, even with extra support.

8th Grade NAEP Math

Results by Performance Level in Kentucky, 2017



Note: Percentages may not add to 100% due to rounding.

Source: National Center for Education Statistics

Overall percentages of eighth graders performing below Basic on the NAEP math assessment hide large gaps between student groups. While 23 percent of white eighth graders in the median SREB state fell below Basic in 2017, more than half of black students — 56 percent — performed at this level, as did 42 percent of Hispanic students. The gap between students in different income groups was also large: 47 percent of fourth graders from low-income families performed below Basic, compared with 21 percent of their more affluent peers. These large performance gaps indicate that schools could do more to support all students in the middle grades, but especially those most at risk of academic struggles.

SREB began comparing student results on state-adopted or state-developed assessments to NAEP results in 2005 to help policymakers better understand how their state assessment results compare in a national context. When the percentage of students scoring at or above the level considered proficient on state assessments is close to the percentage scoring at or above NAEP Proficient, the standards, cut scores and reporting categories of that state are likely to accurately indicate college and career readiness. Likewise, similar percentages of students scoring below a basic level of achievement on state assessments and NAEP indicate that states are accurately identifying the students who need the most support.

8th Grade Math Results

Kentucky, 2017

	Assessment	
	State	NAEP
Below Basic	18%	35%
At or Above Proficient	49%	29%

Sources: National Center for Education Statistics and Kentucky Department of Education

In 2017, a higher percentage of eighth graders in 13 SREB states performed at or above the proficient level on state-adopted assessments of **math** than at or above the Proficient level on NAEP. The gaps in these percentages between state and NAEP results ranged from 1 to 25 percentage points. A smaller proportion of students performed below basic on state assessments than below the Basic level on NAEP in nine SREB states; this gap ranged from 2 to 33 percentage points. Two states in the SREB region, North Carolina and Tennessee, had gaps of 5 percentage points or fewer at both levels.

States in which students' performance on NAEP is very different from their performance on state assessments are less likely to be able to accurately measure the proportion of students who are ready for college or careers. They may also underestimate the proportion of students struggling to acquire academic skills and fail to provide the support these students need.

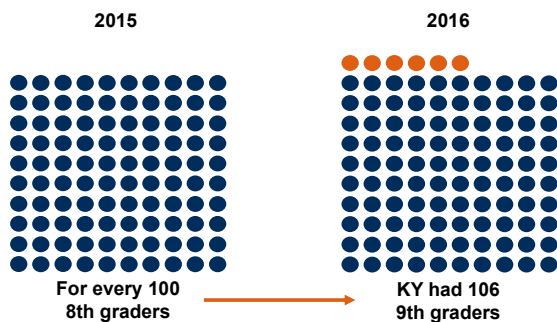


High School

Making a successful transition from eighth to ninth grade is key to student success in high school. But this transition proves difficult for many students. Ninth-grade public school enrollment in SREB states exceeds eighth grade enrollment, and this increase is a possible indicator that too many middle graders were not prepared sufficiently for high school. The **ninth-grade enrollment bulge**, seen throughout the nation, is not new, and states have monitored it for some time. It is calculated by comparing the enrollment of ninth graders to that of eighth graders the prior school year.

This enrollment bulge stems, in part, from middle graders moving from private and home schools to public high schools. It is somewhat offset by eighth graders who exit public schools for private high schools. These shifts differ by state. But a sizeable bulge generally indicates that more than an average proportion of public school ninth graders were not promoted.

9th Grade Enrollment Bulge Kentucky



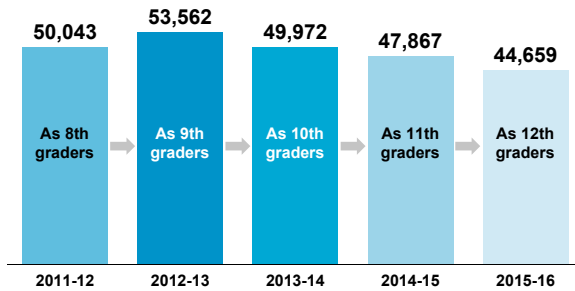
Source: SREB, based on data from the National Center for Education Statistics

In the SREB region, 109 ninth graders were enrolled in public schools in 2016 for every 100 eighth graders in 2015. The bulge included from three to 14 more students in ninth grade across SREB states. States need to monitor eighth- and ninth-grade enrollments annually to help all students make a smooth transition and receive the support they need to be successful in high school.

Students in other grades also struggle with transitions. They may face challenges as they advance through high school, which may put them at risk of failing a grade or dropping out. States should monitor the percentage of students who successfully advance from one grade to the next — a measure of grade-level progression.

Grade-Level Progression

Enrollment for the Class of 2016, Kentucky



Source: SREB, based on data from the National Center for Education Statistics

SREB states have seen improvement in high school grade-level progression. From 2011 to 2016 the percentage of ninth graders who reached 12th grade on time increased 7 percentage points. In 2016 the high school progression rates in SREB states ranged from 74 percent to 89 percent.

State data systems can monitor progression rates by tracking student enrollment rates at each high school grade level. This monitoring will help school staff identify students at risk of failure and show state leaders where state policies and programs can support student success.

In addition to improvements in student progression, SREB states have made strides toward the Challenge to Lead 2020 target of a 90 percent high school graduation rate, adopted in 2012. When the first Challenge to Lead goals were set in 2002, the median graduation rate in SREB states was 69 percent, 2 percentage points below the national average.

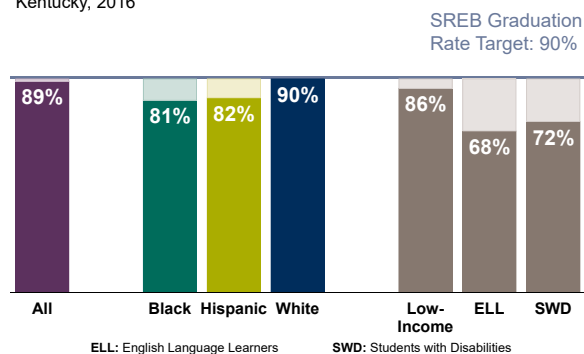
The estimated graduation rate for the SREB region in 2011 was 78 percent, 1 point below the national rate. By 2016 SREB's graduation rate increased to 86 percent — and exceeded the national rate by 2 points. Fifteen SREB states saw their high school graduation rates rise during this time, by between 3 and 15 percentage points.

During those five years, over half of SREB states had significant increases in graduation rates for black or Hispanic students, English language learners, students with disabilities or students from low-income families. These increases helped narrow **graduation-rate gaps**. Yet, amid these overall gains in graduation rates in SREB states, gaps remain among student groups.

Over time, states agreed to standardize to one formula for calculating a high school graduation rate. Since 2014, SREB has reported the federal **Adjusted Cohort Graduation Rate (ACGR)**, based on actual counts of cohorts of students. Before then, states reported data for a federal calculation that yielded an estimated rate.

High School Graduation Rates

Kentucky, 2016



Source: U.S. Department of Education, Ed Data Express

From 2014 to 2016 the median graduation rate gains in SREB states for black students, students with disabilities and students from low-income families substantially outpaced the gains made by all students in the region. This means that graduation rate gaps narrowed for these students.

In 2016, 81 percent of black students in SREB states graduated from high school. Their graduation rates improved in 15 SREB states, by between .50 point and 11 points.

At the same time, 67 percent of students with disabilities in the SREB region graduated from high school, with

In Kentucky:

- The high school graduation rate increased by 3 percentage points from 2013 to 2016.
- The percentage of ninth graders progressing to 12th grade in four years increased from 77 percent in 2011 to 83 percent in 2016.
- In 2017, 38 percent of 11th and 12th graders enrolled in at least one AP course, compared with 38 percent in the nation.

graduation rate gains in 13 states. Students from low-income families graduated at a rate of 80 percent, with graduation rate gains in 13 states.

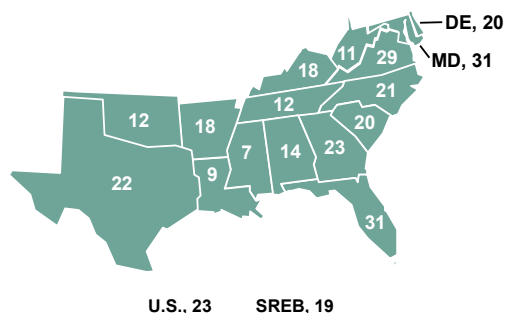
In 2016, Hispanic students in the SREB region graduated from high school at a rate of 81 percent, and white students at 89 percent. They, along with black students, were all short of SREB's 90 percent target. Even so, graduation rates improved by 3 points for black students and 1 point for Hispanic students from 2014 to 2016. All three student groups in SREB states graduated at rates higher than their peers nationwide.

In addition to graduating students from high school, SREB states need to focus on preparing students for the transition to college and careers. The Challenge 2020 goals call for states to increase the availability of accelerated programs that can prepare students for work beyond high school. Such programs include Advanced Placement, International Baccalaureate, Early College and dual enrollment.

Specifically, the goals recommend that students take AP exams while in high school. Research shows that students who take AP courses in high school and attempt the related exams are more academically successful as college freshmen. This is true even if the students do not earn a score of 3 or higher on the test — considered passing and generally sufficient to earn college credit.

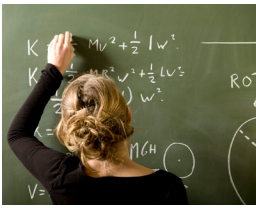
Percentage Scoring 3 or Higher on AP Exams

Class of 2017



Source: The College Board

In 2017, nine SREB states had more 11th and 12th graders enrolled in AP courses on average than other states nationwide. The SREB regional participation rate was 42 percent, compared with 38 percent in the nation.



High School

Although increasing high school graduation rates is important, the focus of the SREB 2020 goal for high schools is on college and career readiness. This goal calls for 80 percent of ninth graders to be ready for college and career training when they complete high school.

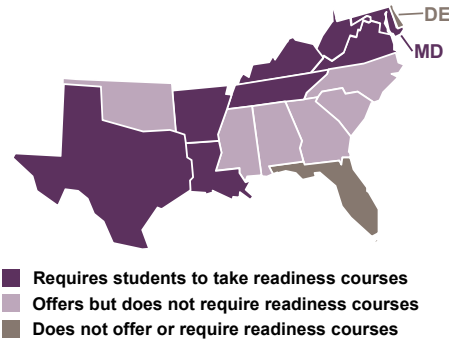
To help states meet this readiness goal, SREB developed a **college- and career-readiness action agenda**. It calls for states to adopt five policies — all focused on helping students become ready for postsecondary study. The agenda includes having states:

- adopt readiness standards for math and literacy;
- assess student progress on readiness no later than junior year of high school;
- offer courses in high school to students who do not meet the readiness standards;
- align college admissions and placement policies to state readiness standards; and
- make postsecondary readiness a high school accountability measure.

By 2017, many SREB states had adopted most of these policies. All SREB states had set math and literacy standards; 15 had set **college- and career-readiness benchmarks** for their statewide high school assessments. Students who fall below these benchmarks are identified as needing help in the transition from high school to postsecondary study. All SREB states now offer courses designed to help students catch up to standards. Half of the states require students who do not meet the benchmarks to take the courses.

College Readiness Courses

For Students Not Meeting Readiness Cut-Scores in High School



Source: SREB analysis of state documents

Student performance on national assessments such as the ACT and SAT provides states with critical information about how students may perform after high school. Eight SREB states use ACT or SAT results to measure college readiness. Both assessments also set college readiness benchmarks that help students and their advisors make final high school course choices.

Nine SREB states required students in the class of 2017 to take one of these tests, generally in their junior year. Of these states, eight required the ACT and one required the SAT. Arkansas also had full participation on the ACT even though the test was not required.

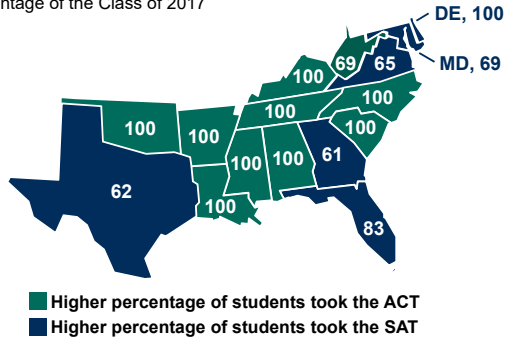
Among SREB states, the percentage of students taking these admission tests differs greatly, and the proportion of students taking them has shifted in recent years. In Florida, Georgia and South Carolina more than half of

College and Career Readiness (CCR) in Kentucky

Policy Element	Status	Details
Gives assessment to high school juniors for CCR	Yes	K-PREP and ACT, Algebra II end-of-course exam
Offers transition courses to juniors or seniors not ready for college and careers	Yes	Implementing SREB readiness courses
Requires remediation in high school for students scoring below college- and career-readiness benchmark(s)	Yes	
Requires postsecondary institutions to use high school assessment results for college placement	No	

Source: SREB analysis of state documents

ACT and SAT Participation Rates Percentage of the Class of 2017



Sources: ACT, Inc. and state departments of education

the class of 2017 took both tests. Of the remaining SREB states, nine had 50 percent or higher participation on only the ACT, and four had 50 percent or higher participation on only the SAT.

In the SREB region, 73 percent of the class of 2017 took the ACT, up from 63 percent for the class of 2013. This increase largely resulted from more states having 100 percent participation. SAT participation for the 2017 class was 49 percent — a 0.5 percentage point drop from the class of 2013.

In Kentucky:

- Participation rates on the ACT have been 100 percent for each class since the class of 2013.
- The average ACT subscore for reading for the class of 2017 increased to 20.5, up 0.2 percentage point, compared with the class of 2015.
- The average ACT subscore for math for the class of 2017 decreased to 19.4, down .01 percentage point, compared with the class of 2015.

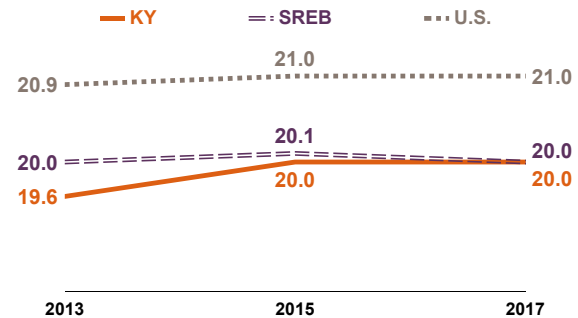
SREB's 2020 goals call for states to reach national averages on the ACT and SAT. The average ACT composite score for the SREB region for the class of 2017 was 20.0, compared with the national average of 21.0. Since 2013, the regional average remained flat, and the national average rose 0.1 point. For the ACT, 0.1 point is considered statistically significant.

An increased proportion of graduating seniors taking the ACT partially explains why scores did not rise with the national increase. Generally, as a greater proportion of students takes a college admission test, the average score drops as the expanding group includes many students who are not prepared for college.

In the SREB region, the average composite ACT score for black and Hispanic students in the class of 2017 improved, compared with the class of 2016. In 2017, white students in SREB states exceeded the national average score by 0.6 points. Black students trailed the national score by 4.1. Hispanic students trailed the national score by 2.3.

Average Composite ACT Scores

Graduating Classes, Kentucky



Source: ACT, Inc.

The 2017 SAT results are based on College Board's new test, which introduced two sections: Evidence-Based Reading and Writing, and Math. While this new test is derived from previous ones, it has been greatly revised. Previous scores do not directly correspond to current and future ones. For the first time, SAT has set empirically-based benchmarks of college readiness for each section: 480 for ERW and 530 for Math.

The average SAT score for the class of 2017 in SREB states was 1043, compared with 1060 for its peers nationally. Overall in the SREB region, the average score for black students in the class of 2017 matched the ERW benchmark; they scored 70 points below the Math benchmark. Hispanic students exceeded the ERW benchmark by 19 points but fell below the Math benchmark by 43 points. White students exceeded the ERW and Math benchmarks by 90 and 21 points, respectively.



High School

SREB states can use various measures to gauge their students' progress toward the SREB college- and career-readiness goal. These include the ACT, SAT, state assessments, and such indicators as completion of dual enrollment courses and national industry certifications.

Both the ACT and College Board have established empirically based readiness benchmarks for their respective tests — ACT and SAT. These benchmarks are the minimum scores that indicate students have a high probability of success in credit-bearing college courses.

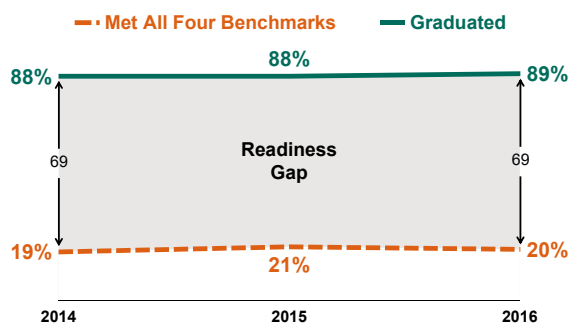
- For ACT, a readiness benchmark score indicates a student has about a 50 percent chance of earning a B or better and about a 75 percent chance of earning a C or better in the corresponding college courses.
- For SAT, a readiness benchmark score indicates a student has about a 75 percent chance of earning a C or better in the corresponding college courses.

SREB states have made significant increases in high school graduation rates since 2002, but ACT and SAT college-readiness results show that too many graduates are leaving high school unprepared for college coursework. The benchmark results indicate that students are not prepared to earn the grades necessary for success in college.

This gap between high school completion and college readiness — **the readiness gap** — comes at a time when labor projections suggest that nearly two-thirds of future job openings will require candidates with post-secondary certificates or degrees.

Graduation Rates vs. College Readiness

Graduating Seniors Meeting All ACT Benchmarks, Kentucky



Source: ACT, Inc., U.S. Department of Education, Ed Data Express

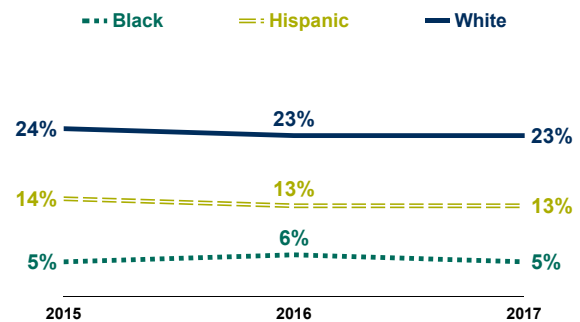
Nationwide, of students in the class of 2017 who took the ACT, 27 percent met all four college-readiness benchmarks — English, math, reading and science. In SREB states, 21 percent did.

Across the nation, 46 percent of the class of 2017 who took the SAT met college- and career-readiness benchmarks in reading and writing, and math. In SREB states, 42 percent did.

A closer look at ACT and SAT benchmark results shows wider performance gaps in meeting the benchmarks for black and Hispanic students than for white students.

Percentage Meeting All Four ACT Benchmarks

Graduating Class by Subgroup, Kentucky



Source: ACT, Inc.

Across the SREB region in 2017, ACT benchmarks results showed: 29 percent of white students met all four college readiness benchmarks; 14 percent of Hispanic students met all the benchmarks; and 5 percent of black students did. Students in all three groups were best prepared in English followed by reading, and then about equally in science and math.

The pattern of results was similar on the SAT. In 2017, 59 percent of white students met both SAT benchmarks, 30 percent of Hispanic students met both benchmarks, and 19 percent of black students met both benchmarks. About half of black students and 60 percent of Hispanic students met at least one of the SAT benchmarks compared with 86 percent of white students. The gap between black and white students in meeting the readiness benchmarks was 37 percent; for Hispanic and white students it was 23 percent.

According to ACT results in 2017, students were particularly underprepared in the STEM area, which represents

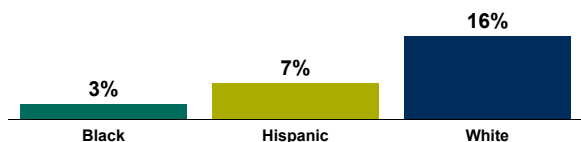
science, technology, engineering and mathematics. Nationwide, 21 percent of students in the class of 2017 who took the ACT met the STEM benchmark, compared with 15 percent in the SREB region. While 21 percent of white students met this benchmark, less than 10 percent of black and Hispanic students did.

Across the SREB region, the gaps between black and white students meeting the STEM benchmark ranged from 10 to 39 percentage points. The gaps in meeting this benchmark were slightly narrower between Hispanic and white students, ranging from 4 points to 24 points.

Percentage Meeting ACT STEM Benchmark

Graduating Class in Kentucky, 2017

Participation Rate = 100%



Source: ACT, Inc.

In the nine SREB states with 100 percent ACT participation for the class of 2017, 1 percent to 4 percent of black students met the STEM benchmark, while 5 percent to 8 percent of Hispanic students did and 12 percent to 19 percent of white students did.

State policymakers and education leaders have worked with business and industry leaders to address gaps in

In Kentucky:

- The gap on ACT's reading benchmark for black and white students narrowed by 1 percentage point from 2015 to 2017 — to 27 percent. The gap for these students on the math benchmark narrowed by 1 point — to 23 percent.
- The gap on ACT's reading benchmark for Hispanic and white students remained the same — at 12 percent. The gap for these students narrowed on the math benchmark by 1 percentage point — to 11 percent.

high school students' readiness and prepare more students to graduate from high school with the academic and career skills needed to meet current and future workforce needs.

To address a growing need for greater technology skills in the workplace, SREB's 2016 Commission on Computer Science and Information Technology studied how states can meet labor market demands in the computing field. Its report, *Bridging the Computer Science Gap: Five Actions States Can Take*, made recommendations that include the development of statewide K-12 computer science standards, the creation of clear computer science career pathways from high school to postsecondary education, and the preparation of great computer science teachers.

Currently, one SREB state has implemented all the commission's policy recommendations. Fourteen other states made progress implementing one or more of the commission's policy recommendations.

K-12 Computer Science Policies in Kentucky

Policy Element	Status
Statewide computer science standards for K-12	No
State/Local computer science leadership position(s) created	No
State certification path for computer science teachers	Yes
Teacher preparation programs offer computer science training	No
State funding for computer science professional development	No
High schools must offer computer science	No

Sources: SREB, adapted from Code.org



Accountability

SREB’s Challenge to Lead 2020 goals recognize that state accountability systems explicitly tie college and career readiness to high school standards as a key policy lever for academic quality and postsecondary readiness.

Since 1990, state leaders in SREB states have refined state policies to create accountability systems that promote and support continuous improvement for all students and schools across the K through 12 continuum.

In 2007 and 2008, the SREB Governor’s Committee to Improve High School Graduation Rates and Achievement focused its attention on state policies to improve high school graduation rates and college and career readiness. Its 2009 report, the *Next Generation of School Accountability*, called for accountability systems that would require more from students, educators and schools — and from state leaders. The following SREB tenets of accountability grew from committee recommendations and state efforts to create accountability systems that would have a greater focus on college and career readiness.

- Establish long-term goals that support increased college and career readiness, accompanied by interim goals that mark progress over time.
- Establish state, district and school accountability systems that are based on multiple measures and place emphasis on high school measures of college and career readiness.
- Give greater weight to accountability measures that reflect state priorities and goals, with college and career readiness as the focal point.

- Provide incentives to local districts and schools to support continuous improvement for all students and all student groups — ultimately leading to greater percentages of high school graduates who are ready for college and careers.
- Provide timely, regularly scheduled, understandable reporting to all stakeholders.
- Support local capacity building to increase student achievement and get more students college and career ready.
- Include accountability mechanisms that identify and trigger state and local intervention for schools that need improvement; these mechanisms should be aligned to the specific type and degree of need at each school.

When the Every Student Succeeds Act (ESSA) passed in 2015, Congress gave states greater flexibility than they had in previous legislation. As a result, SREB states have been able to redesign their accountability systems, including their goals and indicators, so they can better measure what matters in promoting student learning based on state priorities.

While ESSA makes no specific provisions for college and career readiness, SREB states took the initiative to supplement federal requirements with greater state emphasis on college and career readiness. For example, five SREB states included explicit statewide college and career readiness goals in their federal ESSA accountability plans. And, fifteen SREB states included college and career readiness indicators.

College- and Career-Ready Goals in State/Federal Accountability Plans

AL	By 2030, 94 percent of high school graduates will be identified as college and career ready by earning at least one college- or career-readiness indicator.
OK	By 2025, 100 percent of students in grades six through 12 will develop an Individual Career Academic Plan. By 2025, the need for postsecondary remediation in math and English will decline by 50 percent.
SC	By 2035, 90 percent of high school graduates will be college-, career-, or citizenship-ready. The percentage of high school students graduating ready to enter postsecondary education without the need for remediation will increase by 5 percent annually.
TN	By 2020, the majority of Tennessee high school graduates will earn a postsecondary credential. By 2020, the state will reach a target average ACT composite of 21.
TX	By 2030, 60 percent of adults in Texas ages 25 to 34 will possess a postsecondary credential. By 2032, 60 percent of all students — and each student subgroup — will meet grade level on state English language arts and math assessments, indicating that they are on track for success in a postsecondary setting.

Sources: State ESSA plans, analyzed by SREB

SREB state leaders understand that the region's economic competitiveness depends on their ability to close critical gaps in credential attainment and skills in their current and future workforce. While well-designed career pathways can help students gain the broad mix of skills employers need, career pathways that connect to a college-ready academic core curriculum, postsecondary studies and career opportunities do much more.

These highly connected pathways raise expectations for all students, which the research suggests engages and challenges them to achieve at higher levels. They also help reduce academic disengagement, the reason for most dropping out, and they promote successful transitions to college and the workplace.

Fifteen of the 16 SREB states incorporated various indicators of technical career readiness such as completing an academic core with a sequenced career pathway, passing a state licensure exam or earning an industry-recognized credential, into their accountability systems.

SREB state education leaders understand that if districts and schools are to pay significant attention to career readiness, their accountability systems need to include measures and indicators of career readiness along with college readiness. States need long-term student achievement and credential attainment goals — for the percentage of students who graduate college ready, career ready or both, with measures of growth toward each of those goals annually and over time.

Goals and measures, however, are likely not enough. Most accountability system plans need to provide incentives to

districts and schools to prepare more students for both college and careers. SREB states should find ways to value college readiness and career readiness equally in their respective accountability systems. For example, more states could provide accountability incentives to high schools with a large percentage of students who:

- graduate both college ready and career ready;
- complete a four-course career pathway sequence in a priority industry and earn a passing score on approved end-of-course exams or industry certification exams in those courses;
- complete a four-course sequence of AP, IB or AC courses in a targeted STEM field — like advanced manufacturing, clean energy technology or informatics — and score at the proficient level or above on approved end-of-course exams in those courses;
- earn a college- and career-readiness diploma endorsement for completing a college-ready academic core curriculum and a career pathway program of study; and
- earn an advanced credential or a significant number of credits toward a credential or degree in a priority industry or STEM field.

In the end, states should ensure that accountability systems measure and provide incentives to schools and districts for increasing the percentage of high school students who graduate with the academic knowledge and career skills they need to be successful in the future.

Career Readiness in State/Federal ESSA Accountability Plans

CTE Indicators in Accountability Plans	States
Career Readiness Exams such as WorkKeys and ASVAB	AL, DE, FL, KY, LA, MD, MS, NC, OK, SC, TN
Apprenticeships / Work-Based Learning Experience	DE, GA, KY, LA, MD, OK, SC
Earned Approved Industry Certification	AL, DE, FL, GA, LA, MD, MS, OK, TN, TX
Completion of an Approved Career Pathway	GA, KY, MD, SC

Sources: State ESSA plans, analyzed by SREB



Postsecondary

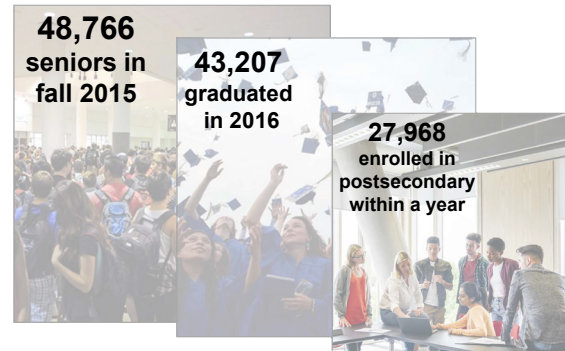
SREB states will need to increase college enrollment substantially in the coming years if they are to achieve the Challenge to Lead 2020 goal — that 60 percent of working-age adults have a postsecondary degree or certificate. The 2016 SREB Affordability Commission addressed the critical challenge of increasing degree completion — one that becomes more difficult as escalating tuition and fees price students out of postsecondary education and better careers.

Increasing overall postsecondary enrollment rates — and enrollment rates for all student groups — is a critical step in closing college completion gaps. As postsecondary institutions try to attract a greater percentage of students, states will need to provide increased support for them, particularly those from low-income families and those who are first in their families to consider postsecondary education.

In fall 2016, 69 percent of the recent high school graduates in SREB states enrolled in postsecondary education, ranging from 62 to 88 percent across the SREB region. From 2011 to 2016, postsecondary enrollment in SREB

Postsecondary Enrollment

High School Class of 2016 in Kentucky



Source: SREB-State Data Exchange

states decreased for black students by 13 percentage points, with double-digit decreases in 15 SREB states. Conversely, enrollment increased for Hispanic students by 21 points in the region, with gains ranging from 11 to 59 percentage points across the SREB region.

The policies and strategies states use to increase the number and diversity of students in certificate and degree programs will vary. Most SREB states provide some combination of need-based and merit-based aid. Need-based financial aid helps cover the cost of attendance at public postsecondary institutions for students who meet admission standards, but who may not qualify for merit-based scholarships. While state aid in SREB programs varies considerably, need-based financial aid remains an important tool to help students and their families overcome the **affordability gap**.

Federal Pell Grants assist students from low-income families by providing funding support they do not

In Kentucky:

- From 2011-12 to 2015-16, the number of Pell Grant recipients decreased by 23,232 — or 30 percent.
- For 2015-16, the average Pell Grant award per recipient attending public colleges was \$3,668.
- From 2012 to 2016, average student loan debt for bachelor's degree completers at four-year public and private nonprofit colleges increased by \$6,526 — or 29 percent.

Percentage of Annual Income Needed to Pay the Net Price at Public Four-Year Colleges in Kentucky, 2016

Annual Income Level	Families in This Level	Average Income in This Level	Net Price*	Income Needed
\$0 - \$30,000	28%	\$16,505	\$11,854	72%
\$30,000 - \$48,000	18%	\$39,190	\$11,377	29%
\$48,000 - \$75,000	22%	\$60,936	\$14,046	23%
\$75,000 - \$110,000	17%	\$90,888	\$16,724	18%
\$110,000 or more	15%	\$177,399	\$17,097	10%

* Note: Net price equals tuition and required fees plus room and board, books and other expenses minus grant aid students receive from the federal or state government or the institution.

Source: SREB Fact Book on Higher Education and Institute for Research on Higher Education

have to pay back. Students whose total family income is \$50,000 a year or less qualify for Pell, but most Pell Grant money goes to students with total family incomes below \$20,000 per year. From 2005-06 to 2015-16, the average Pell Grant award nationwide per recipient at public colleges increased from \$2,335 to \$3,609. In 2015-16 the average Pell Grant award in SREB states ranged from \$3,310 to \$4,046. Even though Pell Grant awards increased in the SREB region, the number of students receiving Pell Grants declined by 432,000 students from 2012 to 2016. During the same period, every SREB state decreased in the number of students receiving awards while the proportion of college costs that Pell Grants covered declined.

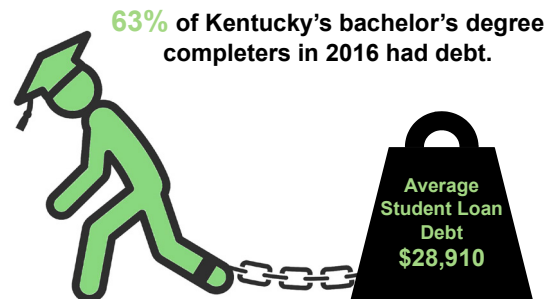
The net-price cost for an undergraduate student to attend a public four-year institution for one year in SREB states ranged from \$8,934 to \$24,650 in 2016. The National Center for Education Statistics defines net price as the total cost of attendance minus the average state, federal, and institutional scholarship and grant aid. It factors in what students can expect to receive in all types of financial aid, including federal and state aid.

Students' families are expected to pay a share of these costs based on their annual **Expected Family Contribution**. This EFC is based on a family's taxable and nontaxable income, family size, the number of family members going to college that school year and the student's financial aid information. The Integrated Postsecondary Education Data System at the National Center for Education Statistics categorizes yearly income across five income levels: families with yearly incomes of less than \$30,000, from \$30,000 to \$48,000, from \$48,000 to \$75,000, from \$75,000 to \$110,000, and \$110,000 and above.

EFC varies dramatically across income levels. Families in the lowest income bracket are expected to contribute less

Bachelor's Graduates with Student Loan Debt

Public and Nonprofit Four-Year Institutions in Kentucky



Source: SREB, from Projectionstudentdebt.org

than families in other brackets; even so, their contribution represents a much larger portion of their annual earnings. Student loans can help to cover this gap, but loans stretch out the cost with interest added — requiring students to make payments that can span a decade or more beyond graduation. Approximately 60 percent of U.S. college seniors graduated with **student debt** in 2016. Their average debt was \$28,446. Across SREB states, average debt ranged from \$24,461 to \$33,838. Faced with the prospect of so much debt, many families may decide that college is just too expensive.

SREB's 2015 Community College Commission recommended that states and institutions create clear pathways to help students complete postsecondary credentials efficiently by reducing the cost and the time it takes to earn a credential. This means that states need strong advisement programs designed to keep students on track to graduate from both high school and college.

Percentage of Annual Income Needed to Pay the Net Price at Public Two-Year Colleges in Kentucky, 2016

Annual Income Level	Families in This Level	Average Income in This Level	Net Price*	Income Needed
\$0 - \$30,000	28%	\$16,505	\$4,540	28%
\$30,000 - \$48,000	18%	\$39,190	\$4,607	12%
\$48,000 - \$75,000	22%	\$60,936	\$6,822	11%
\$75,000 - \$110,000	17%	\$90,888	\$9,409	10%
\$110,000 or more	15%	\$177,399	\$9,773	6%

* Note: Net price equals tuition and required fees plus room and board, books and other expenses minus grant aid students receive from the federal or state government or the institution.

Source: SREB Fact Book on Higher Education and Institute for Research on Higher Education



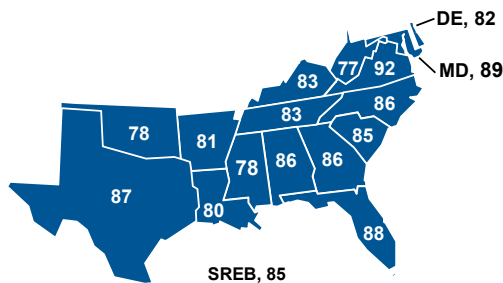
Postsecondary

SREB states monitor their college freshmen persistence rate as a predictor of college completion. This rate measures the percentage of first-year, full-time students who return to their colleges for a second year of study. States submit these data to the SREB-State Data Exchange.

Unlike other persistence rates used across the country, the SREB-State Data Exchange **first-year persistence rate** is the percentage of freshmen in the first-time, full-time bachelor's degree-seeking cohort who were enrolled at the institution they first attended or who transferred to another college or university the next fall.

First-Year College Persistence Rates

Public Four-Year Colleges and Universities, 2015 to 2016



Source: SREB-State Data Exchange

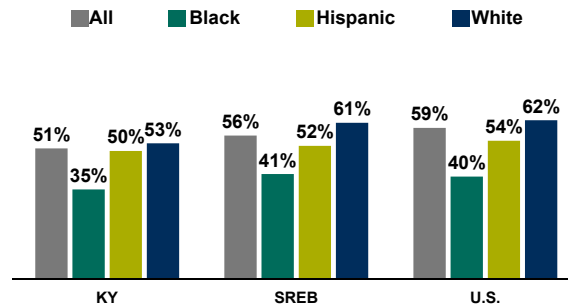
For freshmen students entering in 2015, the average persistence rate at public four-year institutions in SREB states remained the same as in 2014 — 85 percent. Across the region, rates for the 2015-16 cohort ranged from 77 percent to 92 percent. Nine SREB states realized increased persistence rates from 2010 to 2016.

The key performance outcome measures for states are the **six-year graduation rate** for four-year colleges and universities and the **three-year graduation rate** for two-year colleges. Institutions must report these rates to the U.S. Department of Education. Federal law defines college graduation rates as the percentage of first-time freshmen who enter college in the fall term and remain at the same institution and graduate within the six and three years. But the rates do not account for students who enroll at later dates, part-time students or those who transfer from other institutions. Thus, they provide a partial picture of college graduation rates.

In 2016, the SREB region's six-year college graduation rate was 56 percent, the same as in 2014. It trailed the

Six-Year Graduation Rates

Public Four-Year Institutions in Kentucky, 2016



Note: First-time, full-time freshmen who entered in Fall 2010 and graduated by 2016
Source: U.S. Census Bureau

nation by 3 percentage points. Six SREB states had graduation rates that exceeded the national average of 59 percent for students who enrolled in 2010.

The six-year graduation rate for Hispanic students in seven SREB states exceeded the rate for their peers nationwide. In six of these seven states, black and white students also exceeded the rates for their respective peer groups nationwide. In the SREB region, graduation rates for black students ranged from 24 percent to 54 percent. For Hispanic students, the range was 44 percent to 71 percent.

In 2016, the three-year college graduation rate for the SREB region was 21 percent, up 4 percentage points from 2013; it trailed the national average for two-year colleges by almost 3 percentage points in 2016. Six SREB states

In Kentucky:

- Percentages of working-age black and white adults with associate degrees or higher trailed the rates of their respective peers in the nation and region.
- Percentages of working-age black and white adults with bachelor's degrees or higher trailed the rates of their respective peers in the nation and region.
- In 2015-16, 44 percent of students who earned a bachelor's degree from a four-year public institution had previously been enrolled at a two-year public college.

had graduation rates that exceeded the national average of 24 percent for students who enrolled in 2013.

Three-year graduation rates for Hispanic students in eight SREB states exceeded the rates for their peers nationwide. The rates for black students exceeded the rates for their peer group nationwide in seven SREB states, and the rates for white students exceeded the rates for their peers nationwide in six SREB states. Graduation rates for black students in the SREB region ranged from 7 percent to 25 percent. For Hispanic students, the range was 11 percent to 31 percent.

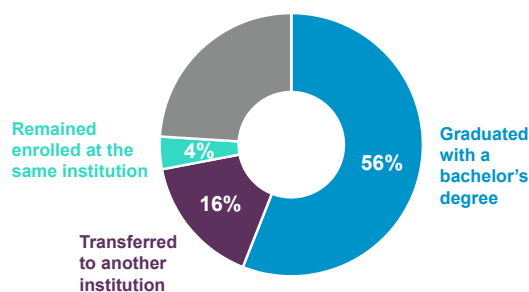
While many students at four-year institutions graduate from college within six years, many finish, but not within that time period. The Data Exchange partners with SREB states to track students for up to 10 years from the year they enter college to calculate an **SREB progression rate** — the percentage of first-time freshmen who complete a bachelor’s degree or remain enrolled or transfer to another institution after their initial enrollment. This rate provides states an indicator of the progress a cohort is making toward graduation.

In 2016, the SREB progression rate was 76 percent after six years for students who entered public four-year colleges and universities in 2010: 56 percent had graduated, 16 percent had transferred to other institutions and 4 percent remained enrolled.

Recent data from the National Student Clearinghouse provides a closer look at enrollment patterns for the 2016 college graduates who earned a bachelor’s degree. In 2016, almost half of the baccalaureate recipients nationwide had been enrolled in a two-year college at some point over the prior ten-year period. For the SREB

SREB Progression Rate

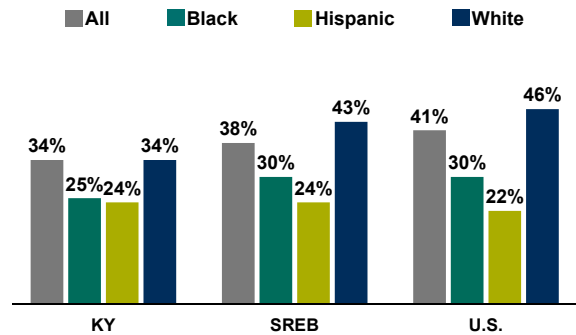
Status of 2010 Entering Students, 2016



Note: First-time, full-time freshmen in public four-year institutions
Source: SREB-State Data Exchange

Associate Degrees or Higher

Working-Age Adults in Kentucky, 2016



Source: U.S. Census Bureau

region, the average was 53 percent with a range across the states of 32 to 75 percent. Clearly, two-year colleges play a role in the success of four-year colleges.

The Challenge 2020 **adult educational attainment** goal calls for 60 percent of working-age adults in SREB states to earn a postsecondary credential. Postsecondary certificates, as well as associate and bachelor’s degrees, count toward the goal. In the SREB region, 38 percent of working-age adults, ages 25 to 64, had earned an associate degree or higher by 2016 — 3 percentage points below the nation. Three SREB states matched or exceeded the national average of 41 percent.

In four SREB states, the percentages of black or Hispanic working-age adults with an associate degree or higher exceeded their respective peer groups nationwide in 2016. This was true for both groups in two SREB states. The percentage of white working-age adults with an associate degree or higher in four SREB states exceeded their peer group nationwide.

States and institutions should consider ways to support students better so that more graduate.

- They should provide greater support for their Pell Grant recipients to ensure their success.
- They should provide support for transfer students to ensure they graduate.
- They should provide rewards for postsecondary institutions that meet or exceed completion performance targets.
- They should align postsecondary education and workforce needs to provide incentives to students.



Lifelong Learning

SREB encourages states to help working-age adults, ages 25 to 64, meet the Challenge to Lead adult educational attainment goal — to earn a postsecondary certificate or degree. Adults with these credentials are more likely to be employed and to earn higher wages.

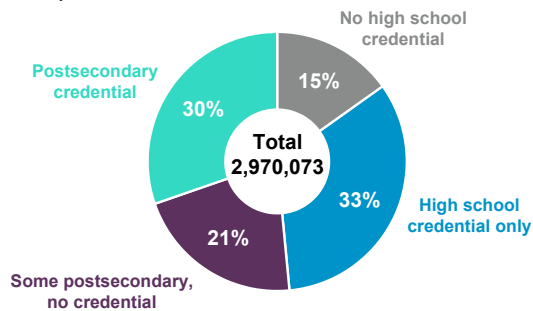
States can improve their adult **educational attainment** rates by attracting more adults to education programs and helping them complete credentials. They will also help these adults be less dependent on state and federal aid programs.

State programs can help three specific groups of adults increase their attainment levels:

- adults without a high school credential;
- adults with a high school credential but no postsecondary education; and
- adults with some postsecondary education but no credential.

These three groups comprised between 55 and 74 percent of the adult population in SREB states in 2016. Across the region, approximately 4.7 million adults 25 and over had earned less than a ninth grade education; 6.8 million attended some high school but had not completed a diploma; almost 17 million had completed some college but had not earned a degree.

Educational Attainment of Adults 25 and Over
Kentucky, 2016

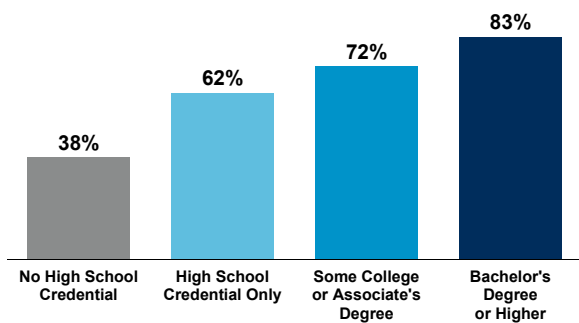


Note: The sum of categories may not equal 100 percent due to rounding.
Source: U.S. Census Bureau

The Bureau of Labor Statistics expects a continued shift away from jobs requiring high school credentials toward those requiring postsecondary credentials. BLS tracks **entry-level education requirements** by assigning occupations to one of eight educational attainment categories that reflect the minimum education needed for an entry-level position in that profession.

From 2007 to 2016, employment opportunities nationwide increased overall by 4.5 percent. During this period BLS recorded decreases in occupations in just two of its educational attainment categories — the one requiring a high school credential, and the one requiring some college but no degree. Occupations requiring a high school credential decreased by 2.6 percentage points, while those typically requiring a postsecondary credential increased by 2.3 points.

Employment Rates by Education Level
Adults 25-64 in Kentucky, 2016



Source: U.S. Census Bureau

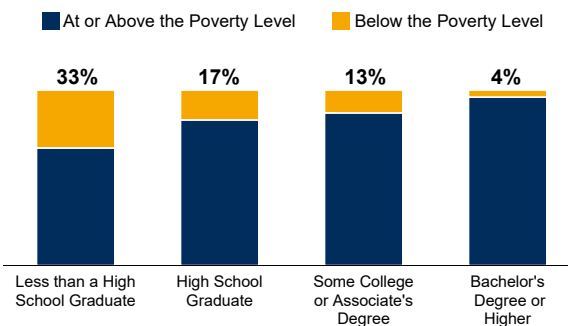
Between 2014 and 2024, jobs requiring only a high school credential are projected to grow at a rate of 3.9 percent — more slowly than the overall national projected rate of 6.5 percent for all occupations. Jobs requiring some postsecondary education, but no credential, are projected to grow by less than 1 percent; those requiring an associate degree are projected to grow by 8.7 percent.

The likelihood that adults will earn incomes below the poverty level is tied to their educational attainment. U.S. Census Bureau poverty levels, established not only for families but also for individual wage earners, are directly related to adult educational attainment for wage earners. In SREB states in 2016, 27 percent of the adults *without a high school credential* earned wages at or below the poverty level; 15 percent of those *with a high school credential but no postsecondary study* did; and 4 percent of those with a bachelor's degree or higher did.

Adults with higher levels of educational attainment are not only less likely to experience unemployment and poverty but less likely to rely on federal and state aid programs such as TANF, or Temporary Assistance for Needy Families. They also contribute more in taxes.

Educational Attainment and Poverty

Income Levels for Adults 25 and Older in Kentucky, 2016



Source: U.S. Census Bureau

College Board estimates that in 2015, adults who had earned bachelor's degrees paid approximately \$7,000 more in federal and state taxes and took home \$18,000 more in after-tax income than high school graduates.

Across the SREB region, adults who graduated from high school earned an average of \$6,300 more in 2016 than those without a high school credential. Adults with bachelor's degrees earned \$20,500 more, on average, than those with only high school credentials — and \$15,300 more than those with some college credit or an associate degree.

The U.S. Office of Vocational and Adult Education provides states with grant funding for adult education programs based on the number of adults over age 16 in each state who are not enrolled in and have not completed high school. Congress appropriated about \$582 million for adult education in 2017. SREB states received approximately \$227 million, or 39 percent of the funds allocated to states nationwide. In turn, states must provide a

In Kentucky:

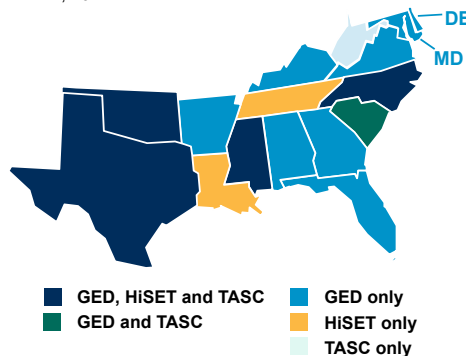
- In 2016, approximately 460,000 adults ages 25 and older did not have a high school credential; 2 million — 70 percent — did not have a post-secondary credential.
- That year, among working adults, the earnings gap between those with a bachelor's degree and those with a high school credential was \$19,238.

25 percent in-kind match for the federal funding they receive and satisfy a “maintenance of effort” provision, requiring that they spend at least 90 percent of what they spent in the prior year on adult education programs. States can leverage both state and federal funds to promote educational attainment, both for those with no high school credential and those with no postsecondary credential.

All SREB states provide adult education programs for adults who have not completed high school, generally through their K-12 or two-year or technical college agencies. Federal funding helps states provide basic literacy and math skills through Adult Basic Education programs, English instruction through English language acquisition programs, and preparation for high school equivalency assessments through Adult Secondary Education programs.

High School Equivalency Assessments

SREB States, 2017



Source: SREB analysis of state documents

In 2017, SREB states offered three **high school equivalency assessments**: the HiSET, or High School Equivalency Test, the TASC, or Test Assessing Secondary Completion, and the GED. The HiSET and TASC provide more testing formats than the GED, and at a lower cost. Some SREB states offered more than one of these exams.

To improve the quality of life for the region's residents and to meet future job needs, states and colleges need to ensure that more adults enroll in educational programs — and then earn degrees or certificates.

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