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 ninth graders will graduate from high school ready for college and career training. (This likely means more than 90% will need to graduate from high school and more than 80% 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.
A Message From the President of SREB

The Southern Regional Education Board has played a critical role in improving education in the South for 75 years. In that leadership role, SREB has provided information for the region's policy makers and education leaders that has helped SREB states set goals and advance education — often leading the country in improving the overall achievement of its students.

Since the adoption of the first set of Challenge to Lead Education Goals in 2002, SREB’s state progress reports have helped policymakers gauge their state’s performance on a common set of adopted goals and key indicators that span pre-K through the workforce.

As SREB presented the 2020 progress reports, the pandemic had just taken hold of the country, disrupting every aspect of our daily lives. At that time there was no way to know the full extent to which the pandemic would impact education and the workforce across the region and the country. Two years later, that impact has grown clearer and the challenges greater. Overcoming these challenges is critical to ensuring a sound educational and economic future for our states and their residents.

The 2022 reports detail your state’s progress on a host of indicators related to the workforce, postsecondary and high school. We have also added two new sections that highlight data on K-12 and postsecondary workforces. Major challenges require comprehensive solutions. Some takeaways:

- **In the SREB region, the percentage of working-age adults with at least some postsecondary education increased 6.1 points between 2011 and 2019.** But across the region in 2019, 41% of working age adults still had a high school diploma or less. Between 2011 and 2019, the share of jobs held by adults with a high school diploma or less decreased by 2.4 points, while the share held by adults with a bachelor’s degree or more increased by 4.3 points.

- **We need to ensure that more high school graduates are prepared to pursue some type of postsecondary credential.** The gap between high school graduation rates and college readiness is substantial. In the median SREB state, 87% of the 2020 class graduated from high school on time, but only 19% of those who took the ACT met its college-readiness benchmarks. Labor projections suggest that approximately two-thirds of future job openings will require candidates to have some type of postsecondary credential.

- **We need to ensure that more adults successfully complete a postsecondary credential.** The wealth gap continues to skew towards higher-skilled workers with postsecondary education. The net worth of households headed by someone with a postsecondary credential increased by $23.4 trillion from 2020 to 2022. This is almost three times the amount for those without a postsecondary credential over the same period.

The 2022 NAEP scores did not show us anything we could not have expected with students out of school during the pandemic. What is alarming is the trend that started well before the pandemic, with scores for top performers continuing to increase but the lowest performing students doing even worse. This widening gap presents us as a region, and a country, with an unpleasant reality. Given the impact on the workforce of automation and artificial intelligence, such gaps in the areas of literacy and math are not simply about performance on a test. They are potential predictors of our ability as a region to fully contribute to a U.S. and world economy. The time is now for the South to bring together the best thinking around how to support all students in their educational improvement.
As the pandemic recedes, meeting future state economic and workforce goals will require a systemic approach to support students at all levels. In science, the study of a system means experimenting on parts of that system knowing it will impact other parts. In education we do not always recognize, for example, how changes to the K-12 system can impact the workforce.

The time has come to consider education in America as a single system extending to the workforce, rather than as multiple systems competing for resources. This is a mind shift. The systems need to learn to talk to each other despite their different languages and acronyms. It’s about building a system that understands, and makes use of, the identities and priorities of every level of education.

SREB is approaching the critical work of improving the vitality of the Southern economy by thinking about the entire system of education, from kindergarten through the workforce. A single system can react and move nimbly where multiple systems might compete, potentially leading to crisis and failure. To be clear, SREB is not advocating for new governance or moving agencies under one roof. Rather, SREB believes that students, parents, policymakers and educators need to see education as a system that affects people throughout their lives, from beginning through adulthood. For students and their families, the path should be clear from the start.

To this end, SREB designed the newly adopted Challenge to Excel Goals 2030 with a single-system focus. We will be looking for connections across the education-to-workforce continuum to ensure that state efforts support a brighter future for all our students.

Stephen Pruitt
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<td>14</td>
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<td>18</td>
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<td>References</td>
<td>24</td>
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</tbody>
</table>
Foreword

With the adoption of the Challenge to Lead Goals for Education in 2002, the SREB states established goals that have helped states drive improvements in student achievement, college completion and workforce readiness. To support these efforts, SREB committed to monitor, measure and report on states’ progress to meet the goals. In 2004, the first progress reports on the Challenge to Lead goals provided state, regional and national data analysis that spanned the continuum from Pre-K to workforce.

Finding a Path is SREB’s tenth biennial report to states on their progress. As a result of the pandemic, it is also a departure from earlier progress reports. Due to waivers and delays in assessment cycles and data collections, SREB was faced with two choices in 2022: delay this year’s report publication until 2023 or redesign the reports. Rather than delay, we chose to break the report into two distinct parts that we are publishing across two years — 2022 and 2023. This provides us the chance to expand both the breadth and depth of the analysis. The 2022 report provides an expanded look at workforce, postsecondary and high school. The 2023 release will focus solely on birth to middle school, as fourth grade and eighth grade NAEP data will be available for the first time since 2019.

These reports, like previous editions, provide a customized look at a variety of data points that allow us to compare states and situate them in a regional and national context. The reports also document advancement on both measurable outcomes and state policies. Many of the data points will be familiar, such as college completion and adult attainment. Others are new to the 2022 progress report. We added, for instance, two new workforce sections that highlight the K-12 teacher and postsecondary workforce.

The workforce alignment section, first introduced in 2020, now delves deeper into state efforts to align and strengthen state work related to three federal plans: the Workforce Investment Act of 2014 (WIOA), the Carl D. Perkins Career and Technical Education Act of 2018 (Perkins) and the Every Student Succeeds Act of 2015 (ESSA).

Why is this important?

The South trails the nation in preparing for the workforce of tomorrow, and United States education and workforce preparation efforts lag those in other developed countries. As we noted in 2020, to be competitive in a changing global economy SREB states need to ensure that more of their residents earn some type of postsecondary credential or degree to be employable in the 2030s. This has taken on even greater importance as companies ramped up their use of artificial intelligence and automation to deal with labor shortages during the pandemic. This effort will transform the workplace over the coming decade.

While this transformation will create new jobs, many thousands of workers are likely to lose jobs made obsolete. Adults with the lowest levels of education will feel the greatest impact. SREB estimates that 42% or more of work activities in food, transportation, education, and office and administrative occupations across the region could be automated by 2025. Food preparation, sales, and office and administration are among the five largest job sectors across the SREB states. Others include transportation, production and healthcare.

Despite increasing high school graduation rates, postsecondary readiness and completion rates and educational attainment levels have not advanced enough to indicate that graduates are college- and career-ready, or that SREB states are prepared to compete in the global economy.
In 2019, SREB published two reports, *Unprepared and Unaware: Preparing the Workforce for a Decade of Uncertainty* and *The SREB Region’s Economic Outlook: The Potential Impact of Automation and AI*, which discussed how technological advancements are threatening economic stability across the South, throughout the nation, and around the globe. Automation and artificial intelligence will displace many of the lowest-educated adult workers as technology increases the demand for higher skills in the workplace. Lower-skilled workers with low levels of attainment will face higher rates of unemployment and earn less. At the same time, business and industry will have more positions they cannot fill because workers lack the necessary skills. As a result, states will face a growing burden to provide additional social services with limited resources.

Here are some important challenges states should be focused on as they direct their efforts to prepare tomorrow’s workforce:

- Over the next decade there will be more young children and retirement-age adults dependent on social services across the region than there will be working-age adults to support them.
- Too many working adults do not have postsecondary credentials, and younger generations face additional challenges in earning these credentials, despite an increased need to do so.
- Too many students still struggle with transitions, as they enter high school and again when in moving on to postsecondary.
- Substantial gaps in achievement and graduation rates still exist for many students of color, for students from low-income families, and for students with disabilities.

In working to ensure there are sufficient qualified workers in any field, we cannot ignore the growing shortages of teachers who will prepare the next generation. Systemic changes to policies around teacher preparation, supports, licensure and compensation are needed. One state in the SREB region has been working on a grassroots systemic action plan since December 2018: North Carolina wants to be the first state to redesign and uplift the teaching profession.

With SREB’s guidance, an education human capital roundtable of leading educator and policy voices in North Carolina began debating and researching how to solve the teacher pipeline and shortage crisis. After two years of work, the roundtable submitted a proposal for systemic change in early 2021 including major changes and improvements to teacher preparation, support, career advancement, licensure and compensation — all interlinked to uplift the teaching profession and inspire talent to enter or return to teaching.

Today, this proposal is undergoing additional improvements from over one hundred educators, researchers, leaders and state staff to submit to the State Board of Education for approval in summer 2022, as well as to the state legislature for policy and budget changes in early 2023.

For policymakers wishing to change the narrative in their state’s report, it is not too late to adjust policies and programs to make a difference. It is time to recognize the speed at which a new, uncertain future is approaching — and to work vigorously to prepare as many students and adults as possible.
As COVID-19 continues to impact every aspect of life, it is imperative that states help adults earn a postsecondary certificate or degree to prepare them for employment. Disruptions to the job market and the transition from education to the workforce have led to rapid acceleration towards automation, remote work, and workforce shortages. Despite the record-breaking demand for U.S. workers in 2021, better-paying careers in the coming years will require students to earn a certificate or degree after high school.

In the SREB region, the percentage of working-age adults with at least some postsecondary education increased 6.1 points between 2011 and 2019. But across the region in 2019, 41% of working-age adults still had a high school diploma or less.

These shifts point to a dire situation, though, for low-skilled adults — those with a high school diploma or less, who are most vulnerable to technological advancement and economic downturns.

In the SREB region between 2011 and 2019, the share of jobs held by adults with a high school diploma or less decreased by 2.4 points, while the share held by adults with a bachelor’s degree or more increased by 4.3 points.

Despite fewer low-skilled adults in the workforce in 2019 than in 2011, there was an overall employment rate increase across most states at all education levels over the decade. In fact, employment rates for adults with high school credentials increased in all SREB states over the 10-year period, by 3.5 points. In all 16 SREB states, adults with a bachelor’s degree or higher were employed at greater rates in 2019 compared to 2011.

Without additional education and training, some 18 million SREB adults and their children could be unemployed by 2030. Helping adults earn credentials beyond high school will be critical for 25- to 44-year-olds, who are early- or mid-career and will face job changes.

Technological progress and low educational attainment in the workforce are not the only challenges facing states. By 2030, every SREB state will have more dependent-age individuals than working age adults. Many adults in the 25-64 age range will either be unemployed or out of the labor force by 2030, so the gap between working adults and dependents will likely be higher than conveyed.
Between 2011 and 2019, poverty rates for adults with any postsecondary education decreased in 11 SREB states. For adults with a high school diploma or less, poverty rates decreased in 14 SREB states.

### Working-Age Adults vs. Dependent Population
Percentage of the Total Population in Maryland

<table>
<thead>
<tr>
<th>Year</th>
<th>Under 25</th>
<th>25-64</th>
<th>65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>31%</td>
<td>54%</td>
<td>15%</td>
</tr>
<tr>
<td>2030</td>
<td>33%</td>
<td>49%</td>
<td>18%</td>
</tr>
</tbody>
</table>

Notes: Working age is 25 to 64. Percentages may not add to 100% due to rounding.
Source: SREB Fact Book, U.S. Census Bureau

### Earnings by Education Level
For the Population 25 and Older in Maryland, 2019

<table>
<thead>
<tr>
<th>Education Level</th>
<th>U.S.</th>
<th>MD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate or Professional Degree</td>
<td>$75,495</td>
<td>$90,066</td>
</tr>
<tr>
<td>Bachelor's Degree</td>
<td>$56,344</td>
<td>$56,193</td>
</tr>
<tr>
<td>Some college or associate degree</td>
<td>$38,125</td>
<td>$40,222</td>
</tr>
<tr>
<td>High school (or equivalency)</td>
<td>$31,956</td>
<td>$36,700</td>
</tr>
<tr>
<td>Less than high school</td>
<td>$25,876</td>
<td>$30,300</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau

### Percentage of Adults in Poverty by Attainment
Adults 25 and Older in Maryland

<table>
<thead>
<tr>
<th>Education Level</th>
<th>2011</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than high school</td>
<td>21%</td>
<td>18%</td>
</tr>
<tr>
<td>High school (or equivalency)</td>
<td>11%</td>
<td>11%</td>
</tr>
<tr>
<td>Some college or associate degree</td>
<td>7%</td>
<td>8%</td>
</tr>
<tr>
<td>Bachelor's degree or higher</td>
<td>3%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau

### Wealth Gains during the Pandemic
Net Worth of U.S. Households by Education Level, 2019-2021 change

<table>
<thead>
<tr>
<th>Education Level</th>
<th>2019-2021 change (in Trillions of dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor's Degree or Higher</td>
<td>23.4 T</td>
</tr>
<tr>
<td>Some College</td>
<td>5.3 T</td>
</tr>
<tr>
<td>High School</td>
<td>3.4 T</td>
</tr>
<tr>
<td>Less than High School</td>
<td>0.1 T</td>
</tr>
</tbody>
</table>

Source: Federal Reserve

Adults with higher credentials are less likely than their peers with less than a high school education to earn wages below the poverty threshold — $12,490 for an individual with $4,420 for each additional person in 2019. In the median SREB state, adults with some college or higher earned $20,645 more than those with a high school diploma or less.

With the disruption of the pandemic, along with technological advancement shifts, SREB states are facing considerable challenges in meeting workforce needs.

The growing dependent population, rising poverty rates, and gaps between attainment and job share seen in 2019 pre-pandemic data will be exacerbated. With millions displaced and fewer high school graduates attending college, training for future job openings may become a necessity for 2030.

As the wealth gap continues to skew towards higher-skilled workers, the net worth of households headed by a college graduate increased by $23.4 trillion during the pandemic. This is almost three times the amount for those without a college degree, whose households accumulated around $8.8 trillion.

With fewer people attending and completing college, there are now millions displaced in the workforce pipeline who might need reskilling for future positions. States that coordinate thoughtful partnerships and strategic investments to attain degrees or skills will strengthen a thriving workforce in the future.
Align ESSA, Perkins V and WIOA To Better Prepare the Workforce for the State’s Most In-Demand Fields

States can better align efforts funded under three federal statutes — the Workforce Innovation and Opportunity Act of 2014 (WIOA) for workforce development, the Strengthening Career and Technical Education for the 21st Century Act of 2018 (Perkins V) for career and technical education, and the Every Student Succeeds Act of 2015 (ESSA) for K-12. Together, these funds can help the state prepare more people for well-paying jobs and better meet the evolving needs of industry.

REGIONAL HIGHLIGHTS: A review of state ESSA, Perkins V and WIOA plans revealed four action areas to help states across the region align their efforts.

LEADERSHIP:
Establish a shared “north star” vision for improving the state’s workforce.
- Establish a shared vision and goals for workforce development and economic advancement. Set related targets for programs in K-12, career and technical education, higher education and workforce development.
- Coordinate the needs assessment required by all three statutes.
- States are currently implementing their 2020-2023 plans for Perkins V and WIOA, and state ESSA plans can be updated as needed.

PROGRAMS:
Align career pathways, work-based learning, and industry sector partnerships.
- Career pathways
  • Focus on the most in-demand occupations in the state.
  • Coordinate development to ensure consistently high-quality.
- Work-based learning
  • Target opportunities for the state’s most in-demand fields.
  • Identify shared indicators of quality work-based learning.
- Industry sector partnerships
  • Ensure that leaders in K-12, CTE, postsecondary and workforce development all use these partnerships to inform planning.

EQUITY:
Coordinate efforts across K-12, CTE and workforce development to address success for all.
- Plan together and coordinate implementation of programs and services to remove barriers to success for each individual.
- Engage shareholders together. All three statutes require leaders to engage with elected officials, business leaders, educators, parents, social services and diverse community members.
- Serve each student better, together — bring educators together across the sectors for planning, training, resource sharing and support.

DATA:
Establish a coherent set of accountability expectations and align state data systems.
- All three accountability systems can link to the north star vision. Perkins V post-secondary and WIOA require — and ESSA and Perkins secondary allow for — indicators of postsecondary credential attainment.
- Align data systems so that state leaders can analyze student, educator and program data across the K-12, CTE, postsecondary education, workforce, social services, and economic development continuum.
- Ensure that agency leaders all have access to the same economic and labor market data to guide planning.
Maryland Highlights

Strengths

**PROGRAMS:** Industry sector partnerships: Strong state support
- Maryland’s Senate Bill 278 of 2013 created the Employment Advancement Right Now (EARN) program, to establish industry sector partnerships. The state funds the partnerships and state agencies use WIOA incumbent worker funds to expand them.
- Partnerships include industry leaders, nonprofit and community-based organizations, education and workforce development providers, and economic development entities.
- Partnerships focus on cybersecurity and information technology, transportation and logistics, healthcare, manufacturing, construction, and biotechnology.
- Education solutions developed by the partners focus on helping unemployed and underemployed individuals and incumbent workers.
- Maryland’s Department of Labor provides technical assistance and peer-to-peer learning opportunities for the partnerships.

**Work-Based Learning:** Apprenticeship expansion and innovation
- With two grants from the U.S. Department of Labor, Maryland has expanded apprenticeships, aligned the use of WIOA funds to support them, and fostered local innovation.
- The state departments of labor and education collaboratively developed a framework for the Apprenticeship Maryland Program in high school CTE programs.
- Maryland HB 1415 of 2018 funded local grants to develop innovative CTE programs including apprenticeships.

**DATA:** Accountability systems: Aligned expectations for postsecondary credential attainment
- The WIOA plan confirms the required accountability indicator of youth and adult participants earning postsecondary credentials.
- The Perkins V plan selects as the state’s program quality indicator the percentage of high school CTE concentrators graduating with a recognized postsecondary credential.
- The ESSA plan establishes related measures — beyond those required by the statute — to track high school students’ rates of earning an industry certification, completing an apprenticeship, earning dual enrollment credit, and scoring at benchmark levels on college and career readiness exams (AP, IB, SAT, ACT, ASVAB).

Challenges

**DATA:** Continue efforts to strengthen cross-sector data use to drive collaborative leadership.
- The WIOA plan notes Maryland’s need for an integrated data system for use by all partner programs — and by extension, to support collaborative data use and planning across state workforce, education, and human services agencies. The MDThink cloud-based data system is currently under development by the Maryland Department of Human Services with $195 million in federal funding. MDThink will initially integrate the state’s data systems for health and human services and labor. The integration of data from WIOA partner agencies and other state agencies is in the planning phase.

**PROGRAMS:** Prioritize the use of ESSA funds to further align K-12 efforts with those under Perkins V and WIOA.
- The ESSA plan prioritizes the use of funds for helping more students succeed in advanced coursework (AP and IB), for expanding access to CTE, and for providing career exploration and planning programs. The plan mentions an external stakeholder committee including industry representatives that gave input into the initial development of the plan, and the plan notes that Comprehensive Support and Improvement schools must include business partners in strategic planning.
- However, the plan misses the opportunity to prioritize participation of K-12 leaders in the EARN partnerships described above or in the career pathways development described in the WIOA and Perkins plans. Doing these things could help focus ESSA funds so that career exploration programs, dual enrollment, work-based learning, Student Support and Academic Enrichment Grants, and 21st Century Learning Communities providers better address the workforce needs of employers in high-demand industries. ESSA Title IV funds can be used to help K-12 leaders coordinate efforts with industry, Perkins V, and WIOA partners.

FURTHER RESOURCES to support workforce and education alignment:
K-12 teacher shortages have plagued our region and nation for years, limiting districts and states from making crucial educational improvements. The pandemic has only made things worse. Teachers are the number one influential factor in educational achievement. These shortages are also severely limiting our ability to prepare the upcoming workforce, causing economical disadvantages. One workforce sector that is consistently overlooked — yet is integral to supplying workers in all other industries — is the teacher workforce.

The data below provides a picture of the teacher workforce, shortages, and pipeline issues.
Current and Future Teacher Shortages

In the SREB region, nearly 15,000 fewer teacher candidates completed teacher preparation programs in 2019 than in 2013. If Maryland continues this preparation trajectory, the state will only produce 537 new teachers per year in 2030. This projection doesn’t account for pandemic-related effects. In Maryland between the 2013-14 and 2019-20 school years, the number of teacher prep program completers decreased by 31%.

Teacher Preparation Program, Maryland

<table>
<thead>
<tr>
<th>Years Teaching</th>
<th>Total</th>
<th>Alternative - IHE based</th>
<th>Alternative - not IHE based</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2,774</td>
<td>5158</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>1,904</td>
<td>1679</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: U.S. Department of Education Title II Report

Teacher Labor Market Best Practices

States that coordinate and distribute timely and accurate disaggregated teacher data will be better prepared for teacher shortages. Following teacher data practices will highlight inequities and inefficiencies of local labor markets that individual stakeholders cannot.

Maryland Teacher Data Practices

- Produces New Teacher Supply Data: No
- Produces New Teacher Demand Data: No
- Disaggregates Supply and Demand Data to Institution, District and Certification Level: NA
- Publicly Reports Teacher Shortage Data: NA
- Publicly Reports Teacher Mobility Data: No
- Makes Teacher Performance Data Publicly Available: No

Teacher Salaries

Average Annual Teacher Salaries

<table>
<thead>
<tr>
<th></th>
<th>SREB</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>$55,205</td>
<td>$64,133</td>
<td></td>
</tr>
</tbody>
</table>
Workforce: Postsecondary

Shortages in postsecondary faculty in key fields are preventing technical, community and four-year colleges from supplying enough workers to meet demand in high-needs careers. While teacher shortages are affecting foundational skills preparation, postsecondary faculty shortages in high-demand disciplines are limiting the availability of skilled and ready workers to meet job demand in high-needs careers such as healthcare, information technology, education and other technical fields.

Key Faculty Shortages for In-Demand Career Fields in Maryland, 2021 through 2031

<table>
<thead>
<tr>
<th>Postsecondary Faculty Occupation</th>
<th>Annual Supply Gap</th>
<th>Annual Demand</th>
<th>Current Employment, 2021</th>
<th>Projected Employment, 2031</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Specialties</td>
<td>-59</td>
<td>428</td>
<td>4,392</td>
<td>4,866</td>
</tr>
<tr>
<td>Nursing Instructors</td>
<td>-14</td>
<td>121</td>
<td>1,282</td>
<td>1,390</td>
</tr>
<tr>
<td>Business</td>
<td>-9</td>
<td>95</td>
<td>1,103</td>
<td>1,130</td>
</tr>
<tr>
<td>Career/Technical Education</td>
<td>-1</td>
<td>48</td>
<td>633</td>
<td>602</td>
</tr>
<tr>
<td>Biological Sciences</td>
<td>-5</td>
<td>71</td>
<td>875</td>
<td>869</td>
</tr>
<tr>
<td>Education Instructors</td>
<td>-4</td>
<td>68</td>
<td>885</td>
<td>851</td>
</tr>
<tr>
<td>Engineering</td>
<td>-6</td>
<td>72</td>
<td>875</td>
<td>874</td>
</tr>
<tr>
<td>Mathematical Science</td>
<td>0</td>
<td>64</td>
<td>917</td>
<td>830</td>
</tr>
<tr>
<td>Computer Science</td>
<td>-2</td>
<td>60</td>
<td>807</td>
<td>755</td>
</tr>
</tbody>
</table>

Source: JobsEQ

Faculty Quantity and Quality

The data below highlights potential contributing factors and top faculty shortages.

Public Four-Year Colleges and Universities

Total Full-Time Faculty in Maryland: 7,163

Maryland Full-Time Faculty by Gender

Percent of total, 2019-20

<table>
<thead>
<tr>
<th>Gender</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>45%</td>
</tr>
<tr>
<td>Male</td>
<td>55%</td>
</tr>
</tbody>
</table>

Source: SREB Fact Book on Higher Education

Maryland Full-Time Faculty by Race

Percent of total, 2019-20

<table>
<thead>
<tr>
<th>Race</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic</td>
<td>14%</td>
</tr>
<tr>
<td>Black</td>
<td>5%</td>
</tr>
<tr>
<td>Other</td>
<td>81%</td>
</tr>
</tbody>
</table>

Note: Percentages may not add to 100% due to rounding
Source: SREB Fact Book on Higher Education

Public Two-Year Colleges

Total Full-Time Faculty in Maryland: 2,494

Maryland Full-Time Faculty by Gender

Percent of total, 2019-20

<table>
<thead>
<tr>
<th>Gender</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>62%</td>
</tr>
<tr>
<td>Male</td>
<td>38%</td>
</tr>
</tbody>
</table>

Source: SREB Fact Book on Higher Education

Maryland Full-Time Faculty by Race

Percent of total, 2019-20

<table>
<thead>
<tr>
<th>Race</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic</td>
<td>19%</td>
</tr>
<tr>
<td>Black</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>79%</td>
</tr>
</tbody>
</table>

Note: Percentages may not add to 100% due to rounding
Source: SREB Fact Book on Higher Education

Maryland Student-to-Faculty Ratio, 2019

Public Four-Year Colleges: 15

Public Two-Year Colleges: 16
Faculty Salaries

**Maryland Faculty at Public Four-Year Colleges and Universities**

<table>
<thead>
<tr>
<th></th>
<th>Professor</th>
<th>Associate Professor</th>
<th>Assistant Professor</th>
<th>Instructor</th>
<th>All Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maryland</td>
<td>30%</td>
<td>28%</td>
<td>23%</td>
<td>19%</td>
<td></td>
</tr>
<tr>
<td>SREB</td>
<td>29%</td>
<td>25%</td>
<td>25%</td>
<td>7%</td>
<td>14%</td>
</tr>
</tbody>
</table>

Note: Percentages may not add to 100% due to rounding.
Source: SREB Fact Book on Higher Education

**Maryland Staff at Public Two-Year Colleges**

<table>
<thead>
<tr>
<th></th>
<th>Faculty</th>
<th>Other Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maryland</td>
<td>51%</td>
<td>49%</td>
</tr>
<tr>
<td>SREB</td>
<td>51%</td>
<td>49%</td>
</tr>
</tbody>
</table>

Note: Percentages may not add to 100% due to rounding.
Source: SREB Fact Book on Higher Education

**Maryland Part-Time Faculty**

- **2019-20**
  - **Public Four-Year Colleges and Universities**
    - Part Time: 44%
    - Full Time: 56%
  - **Public Two-Year Colleges**
    - Part Time: 27%
    - Full Time: 73%

Source: SREB Fact Book on Higher Education

**Maryland Employment at Postsecondary Institutions**

- **Total Number of Employees**: 61,120
  - Instruction: 52%
  - Research, 4%
  - Other: 33%
  - Graduate Assistants: 11%

Source: Integrated Postsecondary Education Data System
Note: "Other" consists of 12 occupational categories

**Changes in Annual Pay**

- **All workers, United States**: 28% change
- **Private 4-year college faculty, United States**: 22% change
- **Public 4-year college faculty, United States**: 8% change
- **Public 2-year college faculty, United States**: 4% change
- **Public 2-year college faculty, Maryland**: -2% change

Sources: SREB State Data Exchange, National Center for Education Statistics and U.S. Census Bureau

**Average Salaries**

- **Maryland Four-Year Colleges and Universities, Full-Time Instructional Faculty**
  - Instructor: $54,150
  - Assistant Professor: $77,920
  - Associate Professor: $90,026
  - Professor: $126,235

- **Maryland Two-Year, Full-Time Instructional Faculty**
  - Technical Institute or College: $42,393
  - Two-Year College: $67,269

Source: SREB Fact Book on Higher Education
Adults with education after high school are more likely to be employed, to earn incomes above the poverty level, and to be able to support their children’s academic growth. However, as the need to earn a postsecondary credential increased, so has the cost of attaining one.

Across the nation, the average gross total cost for first-time, full-time undergraduates at public four-year institutions increased 16% from 2012-13 to 2018-19, compared with 21% in the SREB region. Meanwhile, the percentage of students whose financial needs were fully covered by grants and federal subsidized loans decreased by 8% nationwide and 9% in SREB states.

Earning a higher education credential is pretty much a requisite for future well-being but paying for one is complex. States must help more students enter college and complete programs successfully.

### Key Terms

**Federal Pell Grants**: financial support for low-income students — whose total family income of $50,000 or less — that does not have to be repaid.

**Net price**: defined by the National Center for Education Statistics as the total cost of college attendance minus the average state, federal, and institutional scholarship, grant aid, and all other types of state and federal financial aid that a student can expect to receive.

**Expected Family Contribution**: the share of the net price of college attendance expected to be paid by a student’s family. It is based on a family’s taxable and nontaxable income, family size, the number of members going to college that school year and the student’s financial aid information.

### Need-Based Undergraduate Grant Aid

**Portion of State Financial Aid, 2019-20**

The strategies states use to increase the number and diversity of students in certificate and degree programs vary. Most SREB states provide some combination of need-based and merit-based aid. Need-based financial aid remains an important tool to help students and their families overcome the affordability gap between what college costs and what families can afford. But between 2012-13 and 2019-20, need-based aid decreased as a portion of total state aid in nine SREB states. Changes in the portion of need-based aid ranged from a 37% increase to an 18% decrease.

Students from low-income families may also receive **Federal Pell Grant** funding to help pay for college. Most Pell money goes to students with total family incomes below $20,000 per year. From 2014-15 to 2019-20, the average Pell Grant award per recipient at public colleges increased from $3,575 to $4,098 nationwide. In 2019-20 the average Pell Grant award in SREB states ranged from $3,726 to $4,571.

### Change in Cost for Full-Time Undergraduates at Public 4-Year Colleges in Maryland

<table>
<thead>
<tr>
<th></th>
<th>2012-13</th>
<th>2018-19</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition and fees (in-district/in-state) for first-time undergraduates</td>
<td>$7,671</td>
<td>$14,188</td>
<td>85%</td>
</tr>
<tr>
<td>* Gross total cost of attendance (living on-campus) for first-time undergraduates</td>
<td>$20,543</td>
<td>$35,601</td>
<td>73%</td>
</tr>
<tr>
<td>* Gross total cost of attendance (living off-campus) for first-time undergraduates</td>
<td>$23,894</td>
<td>$30,568</td>
<td>28%</td>
</tr>
<tr>
<td>Percentage whose needs were fully met with grants and federal subsidized loans</td>
<td>7%</td>
<td>9%</td>
<td>29%</td>
</tr>
</tbody>
</table>

* Gross total cost includes tuition and fees, room and board, books and supplies, and personal transportation and expenses for one full academic year or the length of the largest program (for colleges with nontraditional schedules)

Source: The Institute for College Access & Success, College Insight
For the Class of 2020 in Maryland:

Average Pell Grant awards increased by 12% from 2015. The average Pell Grant was $409 in 2015.

Number of Pell Grant recipients decreased by 16% from 2015. There were 19,687 Pell Grant recipients in 2015.

Average debt of college graduates increased by 10% from 2015. The average debt was $2,789 in 2015.

Sources: SREB Fact Book and The Institute for College Access & Success

Even though the average Pell Grant award increased in the SREB region, the number of students receiving money declined from 2015 to 2020, the proportion of college costs covered by Pell also declined in every SREB state. Federal Pell Grants are at their lowest purchasing power in over 40 years.

The net price cost for an undergraduate student to attend a public four-year institution for one year in SREB states ranged from $10,858 to $19,171 in 2019.

Student’s families are expected to pay a share of the net price cost for attending college according to their annual Expected Family Contribution. EFC varies dramatically across the five income levels established by the Integrated Postsecondary Education Data System at the NCES: families with yearly incomes of less than $30,000, from $30-$48,000, from $48-$75,000, from $75-$110,000, and $110,000 and above.

Families in the lowest income bracket are expected to contribute less than families in other brackets, but their contribution represents a much larger portion of their annual earnings. Student loans can help, but student debt may hinder graduates’ purchasing power for years.

Across SREB states, average debt ranged from $24,454 to $39,705 for the class of 2020. From 2015 to 2020, the average debt decreased in three SREB states. However, over the same period, the average debt of the SREB region increased by 5% to $28,782. Faced with the prospect of so much debt, many families may decide that college is just too expensive.

Percentage of Annual Income Needed to Pay the Net Price at Public Colleges in Maryland, 2018

<table>
<thead>
<tr>
<th>Annual Income Level</th>
<th>Families in This Level</th>
<th>Average Income in This Level</th>
<th>Two-Year Colleges</th>
<th>Four-Year Colleges</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Net Price*</td>
<td>Income Needed</td>
</tr>
<tr>
<td>$0 - $30,000</td>
<td>12%</td>
<td>$17,370</td>
<td>$7,706</td>
<td>44%</td>
</tr>
<tr>
<td>$30,000 - $48,000</td>
<td>11%</td>
<td>$39,245</td>
<td>$8,401</td>
<td>21%</td>
</tr>
<tr>
<td>$48,000 - $75,000</td>
<td>17%</td>
<td>$61,595</td>
<td>$10,619</td>
<td>17%</td>
</tr>
<tr>
<td>$75,000 - $110,000</td>
<td>19%</td>
<td>$92,570</td>
<td>$12,692</td>
<td>14%</td>
</tr>
<tr>
<td>$110,000 or more</td>
<td>42%</td>
<td>$205,746</td>
<td>$13,332</td>
<td>6%</td>
</tr>
</tbody>
</table>

* 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, College Affordability Profiles

Related SREB Publications

Shared Responsibility for College Affordability (2016)
State College Affordability Profiles (2022)
Key Terms

First-year persistence rate: 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 transferred to another college or university the next fall.

Three-year and six-year graduation rates: the percentage of first-time freshmen who enter college in the fall term, remain at the same institution, and graduate within three years (at two-year institutions) or six years (at four-year institutions).

SREB student 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.

SREB states monitor their college freshmen’s first-year persistence rates as a predictor of college completion. Unlike other persistence rates used across the country, this SREB rate is calculated with data submitted to the SREB-State Data Exchange.

For freshmen students entering in 2018, the average persistence rate at public four-year institutions in SREB states was 85% — six points lower than for their 2013 peers. Across the region, rates for the 2018 cohort ranged from 77% to 87%. Of the 12 SREB states that reported data for the 2018 cohort, 5 saw their persistence rates fall from the cohort of 2013, with decreases ranging between 1 and 2 percentage points.

In 2019, the SREB region’s six-year college graduation rate was 60%, up 4% from 2014. It trailed the nation by 2.5 percentage points. Six SREB states had graduation rates that exceeded the national average of 63% for students who enrolled in 2013.

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 as a whole, graduation rates for black students ranged from 29% to 61%. For Hispanic students, the range was 44% to 69%.

In 2019, the three-year college graduation rate for the SREB region was 26%, up 7.7 percentage points from 2016; it trailed the national average for two-year colleges by 1.9 percentage points in 2019. Six SREB states had graduation rates that exceeded the national average for students who enrolled in 2016 and graduated by 2019.

Three-year graduation rates for Hispanic students in eight SREB states exceeded the rates for their peers nationwide; black and white students exceeded the rates for their peer groups nationwide in six SREB states, respectively. Graduation rates for black students in the
The SREB region ranged from 9% to 31%. For Hispanic students, the range was 16% to 36%.

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 student progression rate. This rate provides states an indicator of the progress a cohort is making toward graduation.

In 2019, the SREB progression rate was 79% after six years for students who entered public four-year colleges and universities in 2013: 57% had graduated, 18% had transferred to other institutions and 3% remained enrolled.

The Challenge 2020 adult educational attainment goal calls for 60% 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, 35% of working-age adults, ages 25 to 64, had earned an associate degree or higher by 2019 — seven percentage points below the nation. Three SREB states matched or exceeded the national average of 42%.

In 2019, the percentages of black or Hispanic working-age adults with an associate degree or higher exceeded their respective peer groups nationwide in six and three SREB states, respectively. This was true for both groups in North Carolina, Texas and Virginia. The percentage of white working-age adults with an associate degree or higher exceeded the nation in eight SREB states.

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

- Provide greater support for their Pell Grant recipients to ensure their success
- Provide support for transfer students to ensure they graduate
- Provide rewards for postsecondary institutions that meet or exceed completion performance targets
- Align postsecondary education and workforce needs to provide incentives to students
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. In the SREB region, 105 ninth graders were enrolled in public schools in 2020 for every 100 eighth graders in 2021. The ninth-grade bulge ranged from one to 16 more students in ninth grade across 15 SREB states, while one state had fewer ninth graders than eighth graders.

Several factors influence both the ninth-grade bulge and high school progression rates. Monitoring students’ progression into and through high school can help school staff identify students at risk of failure and show state leaders where state policies and programs can support student success.

Between 2013 and 2019, the region’s graduation rate rose by 5 points to 87%, one percentage point higher than the national average. Fifteen SREB states saw their high school graduation rates rise during this time, by 2 to 12 percentage points, while 11 states had rates higher than the national average.

Students can struggle with transitions as they advance through high school as well, potentially putting them at risk of failing a grade or dropping out, although states have seen some improvement. From 2014 to 2021 the percentage of ninth graders who reached 12th grade on time increased 12 percentage points to 92%, trailing the nation by six points. In 2021 the high school progression rates in SREB states ranged from 78% to 93%.

Key Terms

Ninth-grade bulge: Ninth grade public enrollments that exceed that cohort’s eighth grade enrollments could be due to ninth grade retentions, drop-outs, transfers, or newly enrolled former home-school students — a possible indicator that too many middle graders were underprepared for high school.

Grade-level progression: The percentage of students who successfully advance from one grade to the next.

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peers. The median graduation rate gains for Asian and black students, English learners and students from low-income families outpaced those made by all students in the region. English learners had the greatest overall gains, with graduation rate increases in 13 SREB states. State rates ranging between 13% and 37%.

Between 2013 and 2019, graduation rates rose for all student groups across the SREB states. Black and Hispanic students across the SREB states graduated at a rate of 84% in 2019 compared to 76% and 77% in respectively in 2013.

At the same time, students from low-income families graduated from high school at a rate of 82%, with gains in 13 states. English learners graduated at a rate of 73%, while students with disabilities graduated at a rate of 71%.

In addition to graduating students from high school, states need to focus on preparing students for a rapidly changing workforce. The Challenge 2020 goals call for states to increase access to accelerated programs, such as dual enrollment, Early College, International Baccalaureate and Advanced Placement.

For those students who take AP courses in high school and attempt the related exams, the research suggests that they 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.

Nationally, 38% of the graduates in the Class of 2020 took an AP exam, compared to 21% to 56% across the SREB states. For students in the SREB states, passage rates ranged from 8% to 34%. Only three SREB states exceeded the national passage rate of 24%.

### Advanced Placement in Maryland

<table>
<thead>
<tr>
<th>Student group</th>
<th>Number of tests taken</th>
<th>Percentage of tests with scores 3+</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2009</td>
<td>2020</td>
</tr>
<tr>
<td>Asian Students</td>
<td>14,172</td>
<td>21,075</td>
</tr>
<tr>
<td>Black Students</td>
<td>13,619</td>
<td>14,832</td>
</tr>
<tr>
<td>Hispanic Students</td>
<td>5,577</td>
<td>11,456</td>
</tr>
<tr>
<td>White Students</td>
<td>57,298</td>
<td>58,924</td>
</tr>
</tbody>
</table>

Source: College Board, Inc.
While increasing high school graduation rates is important, the focus of the SREB 2020 goal for high schools is on college and career readiness. Like Advanced Placement, dual enrollment courses may help prepare students for college and career training beyond high school.

Recently, states have paid increased attention to dual enrollment programs to provide greater access to post-secondary for more students. In the last three years, 14 states in the SREB region have passed dual enrollment legislation. And there is some evidence that these programs can encourage students to enroll in college and help them be successful, though research findings are mixed.

Many of the positive outcomes attributed to dual enrollment were observed in Early College High Schools, and due to data and sampling limitations, findings from such studies are not generalizable beyond the original program(s) or location(s). Researchers have also been unable to determine whether participation causes the positive outcomes or if they are simply associated with dual enrollment due to other factors (such as student characteristics or programmatic variations).

To help states answer these questions, SREB began a Dual Enrollment Initiative in 2019. This initiative convened an advisory panel including state and local K-12 leaders, state higher education agency leaders, and technical college system and institutional staff to evaluate ideas, problems and goals to understand the impact of dual enrollment. This panel aims to address key policy questions, explore dual enrollment as a strategy to connect secondary and postsecondary to career opportunities, and examine state methods of establishing college readiness.

The advisory panel identified five issues confronting all SREB states: student access, eligibility and costs, program quality measures, program funding streams, and data collection and reporting.

ACT and SAT scores are used for college admission decisions and the awarding of merit-based scholarships. Both assessments are attempting to measure a high

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### Key Terms

**Dual enrollment:** Courses taken during high school in which students receive both high school and college credit.

**Early College High Schools:** Organized programs of study in which students earn no less than 12 transferable college credit hours that count toward their high school diploma at no cost to students or their families.

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### Earning Postsecondary Credit During High School in Maryland

<table>
<thead>
<tr>
<th>Policy Elements</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>State offers multiple ways for students to earn postsecondary credit in high school</td>
<td>No</td>
</tr>
<tr>
<td>Term for courses in which a student earns secondary and postsecondary credit</td>
<td>Dual Enrollment</td>
</tr>
<tr>
<td>State requires dual enrollment courses to be offered in high school</td>
<td>No</td>
</tr>
<tr>
<td>Grades in which students may participate in dual enrollment</td>
<td>9-12</td>
</tr>
<tr>
<td>Public postsecondary institutions are required to accept credits</td>
<td>No</td>
</tr>
</tbody>
</table>

*Source: Education Commission of the States*
school student’s readiness for college and provide a common data point that can be used to compare all applicants. Because of the pandemic, many institutions waived ACT and SAT admission requirements in 2020 and 2021.

Participation rates on the ACT or SAT ranged from 41 percent to 100 percent in the SREB states for the graduating class of 2021. While nine states required participation on college admissions tests for high school students in 2021, only four states had 100 percent participation due to the pandemic. Another four states had participation rates over 90 percent.

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 South Carolina around half of the class of 2021 took both tests. Of those remaining, eight had 50% or more participation on only the ACT, and three had 50% or more participation on only the SAT.

In the SREB region, 58% of the class of 2021 took the ACT, the same for the class of 2019. SAT participation for the 2021 class was 31%, up 28 percentage points from the class of 2019.

SREB’s 2020 goals called for states to reach national averages on the ACT and SAT. The average ACT composite score for the SREB region for the class of 2021 was 19.5, compared with the national average of 20.3. Since 2019, both the national and regional averages fell by 0.4 points and 0.3 points respectively. For the ACT, 0.1 point is considered statistically significant.

In the SREB region, the average composite ACT score for all student groups in the class of 2021 worsened compared with the class of 2019. In 2021, all student groups in the regional did not meet their national peers’ scores. Black students fell behind the nation by 0.1 points, while Hispanic students trailed the nation by 0.3 points. White students trailed the nation by 0.9 points, and Asian students fell behind the national average by 1.4 points.

The 2021 SAT results cover two sections: Evidence-Based Reading and Writing, and Math. The SAT has set empirically based benchmarks of college readiness for each section: 480 for ERW and 530 for Math.

In SREB states, the average SAT score for the class of 2021 was 1107, 71 points higher than in 2019 and 47 points higher than the national average.

### Difference from SAT Benchmark Scores

<table>
<thead>
<tr>
<th>Student Group</th>
<th>ERW: 480</th>
<th>Math: 530</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Students</td>
<td>+70</td>
<td>+7</td>
</tr>
<tr>
<td>American Indian</td>
<td>+17</td>
<td>-50</td>
</tr>
<tr>
<td>Asian</td>
<td>+129</td>
<td>+105</td>
</tr>
<tr>
<td>Black</td>
<td>+23</td>
<td>-54</td>
</tr>
<tr>
<td>Hispanic</td>
<td>+62</td>
<td>-11</td>
</tr>
<tr>
<td>White</td>
<td>+105</td>
<td>+30</td>
</tr>
</tbody>
</table>

Note: ERW means Evidence-Based Reading and Writing.
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 indicators such as graduation rates and completion of dual enrollment courses and industry certifications.

SREB states have significantly increased their 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. This readiness gap comes at a time when labor projections suggest that nearly two-thirds of future job openings will require candidates with postsecondary credentials.

Nationwide, of the students in the class of 2021 who took a college-readiness assessment, 25% met all four ACT benchmarks and 46% met both SAT benchmarks. In SREB states, 18% and 54% did, respectively.

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

Across the SREB region in 2021, ACT benchmarks results showed: 42% of Asian and 24% of white students met all four college-readiness benchmarks; 11% of Hispanic students and 5% of black students did.

The pattern of results was similar on the SAT. In 2021, 78% of Asian and 57% of white students met both SAT benchmarks, but only 28% of Hispanic students and 22% of black students did nationwide. In the region, fewer
than 28% of black students and 46% of Hispanic students met at least one of the SAT benchmarks, compared with 62% of white students and 78% of Asian students.

According to ACT results, students are particularly underprepared in STEM — science, technology, engineering and mathematics. Nationwide, 19% of students in the class of 2021 who took the ACT met the STEM benchmark, compared with 13% in the SREB region. While 38% of Asian students and 17% of white students in the SREB region met this benchmark, just 3% of black and 7% of Hispanic students did.

In the seven SREB states with full ACT participation for the class of 2021, 1-3% of black students and 5-7% of Hispanic students met the STEM benchmark; 12-20% of white students and 31-39% of Asian students did.

According to SREB’s 2017 publication, Valuing Both C’s in College- and Career-Readiness Accountability Systems, industry leaders already struggle to find workers who possess a broad mix of workplace skills, including STEM and industry-specific technical skills. Employers have expressed a need for workers who also have essential employability skills like the ability to communicate well, read technical manuals, work in teams and solve complex problems.

To prepare more students to graduate with the skills needed to meet workforce needs, states offer career and technical education courses, often as part of defined pathways or programs of study. Career pathways that connect to college-ready courses and career opportunities teach critical technical and employability skills, but they also keep students engaged and achieving at higher levels, preventing dropouts and promoting transitions beyond high school.

CTE courses can be funded using federal Perkins V awards that require each state to report data on at least one of three program quality indicators. Most SREB states report how many students attained a recognized postsecondary credential — an industry-recognized certification, apprenticeship or degree. The other two available indicators are students who attained postsecondary credits and those who participated in work-based learning.

### Percentage Meeting ACT STEM Benchmark

<table>
<thead>
<tr>
<th>Race</th>
<th>Percentage Meeting ACT STEM Benchmark</th>
<th>Participation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>73%</td>
<td>8%</td>
</tr>
<tr>
<td>Black</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>37%</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>53%</td>
<td></td>
</tr>
</tbody>
</table>

Source: ACT, Inc.

### Career and Technical Education in Maryland, 2018-19

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Secondary CTE Enrollment</td>
<td>45%</td>
</tr>
<tr>
<td>High School CTE Concentrators</td>
<td>11%</td>
</tr>
<tr>
<td>High school graduation rate for CTE concentrators</td>
<td>99%</td>
</tr>
<tr>
<td>CTE concentrators who earned a postsecondary credential after high school</td>
<td>46%</td>
</tr>
<tr>
<td>“Good jobs” held by workers without a bachelor’s degree*</td>
<td>70%</td>
</tr>
</tbody>
</table>

*Note: “Good jobs” have median annual earnings of $55,000 and pay no less than $35,000 for adults under age 45.

*Source: Advance CTE*
References

Pages 6-7 — Workforce


Pages 8-9 — ESSA, Perkins V and WIOA Alignment


Pages 10-11 — Workforce: K-12


Horn, Catherine; Burnett, Christopher; Lowery, Sherri; White, Chaunté. (2021). Texas Teacher Workforce Report. University of Houston: College of Education. Raise Your Hand Texas Foundation.

Kentucky Department of Education. (2020). Faculty Profile. https://www.kyschoolreportcard.com/


Pages 12-13 — Workforce: Postsecondary


Pages 14-17 — Postsecondary


Online statutory resources from websites at SREB state governments.

References (continued)


Pages 18-21 — High School

https://www.ecs.org/dual-concurrent-enrollment-state-profiles/
Online resources from websites at SREB state departments of education
Online statutory resources from websites at SREB state governments
https://reports.collegeboard.org