

Valuing Both Cs in College- and Career-Readiness Accountability Systems

Gene Bottoms and Kirsten Sundell
Southern Regional Education Board



SREB

Southern Regional
Education Board

“College and career readiness.”

It’s a phrase those of us in education often hear used to describe college readiness alone.

When we undervalue the career readiness component of college and career readiness, we sell our young people dangerously short. In this document, we explore how state accountability systems currently address *college readiness* and *academic and technical career readiness* and offer recommendations and examples of policies and practices that incentivize and reward districts and schools for preparing more students to earn credentials and degrees in high-demand career fields.

Valuing Both Cs — What’s at Stake

The nation’s long-term economic competitiveness depends on our ability to close critical credential attainment and skills gaps. By 2025, two out of every three jobs in the U.S. and in the Southern Regional Education Board’s 16 member states (visit sreb.org/about to learn more) will require some postsecondary education and training, according to economists at the Georgetown University Center on Education and the Workforce. What’s more, demand for individuals with an advanced credential or degree at the associate level or higher may outstrip supply by as many as 11 million people. Right now, a high percentage of youth and a growing number of older adults, particularly men, are chronically unemployed or underemployed because they lack the credentials needed to get a job.

Despite rising graduation rates, far too many students — especially low-income and minority students and young men — are graduating without the knowledge, skills and dispositions they need to earn a credential or degree. In the SREB region, less than 40 percent of students meet their states’ college- and career-readiness benchmarks. Nationwide, only 27 percent of students in the class of 2017 who took the ACT met all four of ACT’s college-readiness benchmarks in English, reading, math and science.

Underpreparedness in high school may hobble young people for the rest of their lives. On average, research shows that between 40 percent and 60 percent of first-year college students are required to take one or more remedial courses in English or math — a rate that SREB’s Community College Commission found rises to 70 percent in some Southern community colleges. Few students who require remediation go on to complete their programs. In a study conducted by the Community College Research Center at Teachers College, Columbia University, *less than a quarter of students* who required remediation earned a credential within eight years.

Many of our youth also lack basic workplace knowledge and skills. Leading employers in every industry say they struggle to find qualified workers who can pass a drug test and possess the broad mix of workplace skills described by the Business Roundtable — industry-specific *technical skills*, all-purpose *STEM (science, technology, engineering and math) skills*, and essential *employability skills* like the ability to use math, communicate well, read technical manuals, work in teams and solve complex problems.

Career pathways have the power to close these readiness gaps. Career pathways that connect to a college-ready academic core curriculum, postsecondary studies and career opportunities don’t just teach the broad mix of skills employers need — they also keep students engaged and achieving at higher levels, prevent dropout and promote transitions to college and the workplace.



The nation’s long-term economic competitiveness depends on our ability to close critical credential attainment and skills gaps.

Researchers at the National Research Center for Career and Technical Education at SREB have found that career pathway programs of study can benefit all students without detracting from a college-preparatory focus. Their studies also show that CTE offers strong benefits to students from low-income families, minority students and young men. SREB's 2015 *Credentials for All* report illustrates how career pathway programs connect high-quality CTE with college-preparatory academics. High-quality pathway programs offer students early opportunities to earn college credits and engage in experiential learning and equip youth with the lifelong learning skills they need to earn credentials, secure good jobs and sustain a middle-class life. Rigorous pathway curricula also help students master academic, technical, cognitive and workplace skills and gain a clearer understanding of their interests, aptitudes and career goals.

Most state accountability and funding systems do not incorporate all of the elements needed to incentivize districts and schools to develop and implement career pathway programs that truly prepare more students for a **double purpose – college and careers**. (See Page 8.) In fact, some of our accountability systems that promote separate college- and career-preparatory tracks or separate diplomas may actively work against preparing students for that double purpose.

Our reviews of states' preliminary Every Student Succeeds Act plans have found that some of these plans offer schools a menu of readiness options that may deepen the divide between college readiness and career readiness – with the latter positioned as a “lesser-than” option. Few states have defined academic college readiness and academic and technical career readiness in their accountability models in ways that not only equally value both, but also reward students who demonstrate both. Few preliminary ESSA plans explicitly address workforce demand or the mix of skills needed to advance in high-demand, high-wage career fields, particularly those that require strong STEM knowledge and skills.



Career pathways equip young people with the lifelong learning skills they need to earn credentials and degrees, secure good jobs and sustain a middle-class life.

Building Accountability Systems That Value Career Readiness

SREB has long advocated that states set a goal that 80 percent or more of students will graduate college ready, career ready or both. States that set such a goal are taking a strong first step on the path to increasing postsecondary credential attainment. SREB helps states meet this bold goal by providing action-oriented guidance on how they can prepare students for a broad range of postsecondary options. Reports like *The Next Generation of School Accountability* (2009) and *Credentials for All*, for example, offer evidence-based recommendations derived from SREB's many decades of experience conducting research and providing direct services to thousands of schools.

In this document, we expand on the recommendations contained in these reports and in SREB's readiness agenda, which urges states to:

- Set K-12 readiness standards in literacy and math.
- Implement junior-year progress assessments.
- Provide senior-year readiness courses in literacy and math.
- Align K-12 standards and assessments with postsecondary programs.
- Hold K-12 and postsecondary education accountable for high school students' readiness for college and careers.



Spotlight State: Tennessee

Tennessee's Drive to 55 initiative seeks to help 55 percent of Tennesseans obtain a postsecondary credential or degree by 2025. Starting with the class of 2015, all Tennessee high school graduates can secure two years of free tuition at a Tennessee community college, college of applied technology or other associate degree program.

The Tennessee Promise scholarship not only pays for any tuition and fees not covered by other scholarships or grants, but also builds in a process of required individual guidance and mentoring. Tennessee ensures that students are on track for postsecondary studies by requiring those who don't meet readiness benchmarks to take transitional readiness courses during their senior year.

Whatever readiness goals your state sets, we encourage you to ensure that your accountability system not only assesses students' academic and technical readiness for college and careers, but also reports the percentage of students, by district and school, who complete a career pathway *and* meet benchmarks for college readiness, career readiness or both. To help your state meet its goals, this document outlines:

- College readiness and how states can measure it
- Academic career readiness and how states can measure it
- Technical career readiness and how states can measure it
- Essential elements of an ideal college- and career-readiness accountability system
- Policies and practices that support college and career readiness

Defining and Measuring College Readiness

SREB's ongoing reviews of state college- and career-readiness policies and practices show that many states define college readiness in state policy as high school students being academically prepared to enroll in credit-bearing postsecondary courses without the need for remediation in English or math.

In reality, however, we have found that parents and students are receiving mixed messages regarding what it means to be college ready, in no small part because college readiness benchmarks are not widely advertised and may differ, sometimes greatly, from the college admissions requirements set by regional two- and four-year institutions. Students, parents and schools deserve clarity on what it means to be college ready.

We encourage states to conduct empirical research on the contexts and conditions that might influence their college-readiness benchmarks and the assessments or indicators used to capture them. In addition to considering nationally recognized benchmarks on the **ACT, SAT or NAEP** (National Assessment of Educational Progress) assessments, states may wish to measure college readiness using:

- **State-specific benchmarks** on the ACT, SAT or NAEP assessments
- A **high school grade-point average** on select courses that predicts success in college
- Completion of **end-of-course exams** in Advanced Placement, International Baccalaureate or academic dual credit courses
- Completion of **math pathways** that prepare students for STEM and non-STEM postsecondary programs

State benchmarks on national assessments. States may find that they need to use multiple measures of readiness or adopt different benchmarks than those set on the ACT, SAT or NAEP. Oklahoma and Kentucky conducted research on their students' ACT scores and used that research to set readiness benchmarks for non-STEM postsecondary programs. **Oklahoma** uses ACT subtest scores of 19 — which predict a 50 percent chance of earning a grade of C or better — as a first assessment of college readiness in English, reading, math and science. ACT's own benchmarks predict a 50 percent chance of earning a B or better. **Kentucky** postsecondary institutions agreed that ACT subtest scores of 18 in English, 19 in math and 20 in reading would indicate college readiness. These scores are not used for college admissions.

As workplace requirements continue to rise, states that set lower benchmarks on assessments like the ACT should consider whether those lower benchmarks may place their students at a disadvantage compared to students in other states.

GPA. An unweighted high school GPA of 2.6 is just one of several readiness indicators the **North Carolina Community College System** includes in its multi-measure system. The NCCCS drew upon research conducted by the Community College Research Center that examined the validity of college placement tests and high school GPA in predicting postsecondary success.



Students, parents and schools deserve clarity on what it means to be college ready.



Spotlight State: North Carolina

To address the issue of over-placement in remedial college math, the North Carolina Community College System used research from the Charles A. Dana Center at the University of Texas at Austin to create a series of **four differentiated math pathways** that acknowledge that not every student needs calculus to be successful. The four pathways include a *vocational pathway* for some diploma and Associate in Applied Science programs; an *applied technologies pathway* for Applied Science and engineering technologies programs; a *calculus pathway* for Associate in Science programs; and a *quantitative literacy pathway* for Associate in Arts and select Associate in Applied Science programs.

Researchers examined student transcripts and focused on 11th- and 12th-grade data, counting the total number of courses taken, the number of honors or advanced courses taken, the number of college-level courses taken, the number of high school math and English courses taken, the number of courses failed, and the total number of secondary credits earned.

Results showed that the GPA was significantly more predictive of a student's college success than placement tests like the COMPASS or ACCUPLACER. According to the Hunt Institute, by using a GPA of 2.6 to determine students' readiness for college, the NCCCS could expect to halve the number of students misplaced in remedial education from 30 percent to 15 percent.

End-of-course exams. End-of-course exams that carry college credit are an important indicator of college readiness. Many state postsecondary institutions accept end-of-course AP and IB exams for credit. Students' successful completion of end-of-course exams in academic dual credit courses can also serve as a measure of college readiness, provided that dual credit courses are taught with the same rigor as on a college campus and guaranteed to shorten students' time to a postsecondary credential or degree.

Completion of math pathways that prepare students for STEM and non-STEM postsecondary programs. States can ensure that the math and science instruction students receive in high school helps them succeed in the postsecondary programs they choose to pursue. SREB advocates that high school students benefit from three years of lab-based science courses and four years of rigorous math courses.

Whereas many students may benefit from taking Algebra II and higher math — especially those interested in credentials and careers in STEM fields — others may benefit from taking four math courses that include algebra, geometry, statistics and higher math related to a non-STEM career field.

Defining and Measuring Academic Career Readiness

We hold that an academically career-ready person has the foundational literacy and math skills needed to thrive in any form of advanced education and training and adapt in an ever-changing economy. States that define and measure academic career readiness in their accountability systems generate the data they need to locate readiness gaps and identify strategies for closing them.

Like college readiness, academic career readiness should be measured using valid and reliable assessments. Any student who meets college-readiness benchmarks on an assessment like the ACT or SAT should be considered academically career ready. Other academic career-readiness measures include:

- A WorkKeys score of Silver or higher
- Cut scores on the ASVAB (the Armed Services Vocational Aptitude Battery) that align with military careers and high-demand public-sector jobs
- Completion of academic and technical dual-credit courses that shorten students' time to a credential or degree

WorkKeys and ASVAB scores. Most SREB states give ACT's WorkKeys assessment at the high school or postsecondary level. According to ACT, a score of Silver on the WorkKeys' Applied Math, Locating Information, and Reading for Information subtests indicates that an individual possesses the foundational literacy and math skills required for 69 percent of jobs.

The ASVAB assesses individuals' academic and occupational readiness for military service. The Pentagon recommends a cut score set at the 50th percentile for individuals planning a military career. States can also set cut scores on the ASVAB that align with high-demand public sector jobs.

- **Kentucky*** students demonstrate academic career readiness with either a Silver on the WorkKeys or a score of 50 on the Armed Forces Qualification portion of the ASVAB, which measures paragraph comprehension, word knowledge, math knowledge and math reasoning. (*Kentucky's accountability system is currently under review.)
- The **"Profile of the South Carolina Graduate"** — a statement of college- and career-ready knowledge, skills and personal characteristics adopted in 2015 by South Carolina's Department of Education, State Board of Education, Education Oversight Committee, Council on Competitiveness, Chamber of Commerce and a host of other organizations — includes the percentage of students who achieve Platinum, Gold or Silver on the WorkKeys, participation in work-based learning and co-curricular organizations, and success in dual enrollment courses.



Dual credit courses. Nationwide, 14 states include dual credit participation or success in their accountability measures. Students who complete an academic or technical dual credit course that shortens their time to a credential or degree should be considered academically career ready; however, quality is key. Dual credit courses offered in the high school should be taught at the same level of rigor as on the college campus, on the same schedule, and using the same syllabi, assignments and assessments.

Defining and Measuring Technical Career Readiness

SREB has found that although states are more likely to define technical career readiness than academic career readiness in their accountability systems, they vary greatly in how they measure it. Some assess technical readiness solely to satisfy federal reporting requirements but do not include it in their state accountability systems. **We have found that district and school leaders pay attention to technical readiness when it counts in the state accountability system or is tied to real dollars.**

Technically career-ready students have job- and industry-specific skills and personal attributes that make them good employees and help them advance in their careers, like the ability to think critically, find and use information, solve problems, communicate effectively, work on a team and adapt to new technology.

States can use a range of valid, reliable measures to assess technical career readiness, like:

- Completing a **college-ready academic core** plus at least **four career pathway courses** in a coherent sequence
- Passing a **state licensure exam**
- Earning an externally vetted **industry-recognized credential** that carries college credit and confers a hiring preference
- Completing **technical dual credit courses** that shorten students' time to a credential or degree
- Passing state-approved **end-of-course exams** in career pathway courses for college credit
- Participating in a high-quality, structured **work-based learning experience** or completing a complex, long-term **capstone project** that integrates academic, technical, cognitive and workplace readiness skills and may involve work in the community or at a job site

Industry-recognized credentials. One of the best measures of technical readiness is industry-recognized credentials or passing an industry certification exam. SREB holds that these credentials must be recognized as being of value to the state or regional economy, offer those who hold them a hiring preference, carry college credits and lead in time to good jobs paying at least \$32,000 to \$52,000 a year.

Spotlight State: Louisiana



To be included in Louisiana's Jump Start career pathways, industry exams must:

- be recognized at the state, national or international level
- not be tied to a specific third-party industry certifying body except in special cases
- receive support from at least three Louisiana employers
- lead to entry-level employment in occupations recognized by the Louisiana Workforce Investment Council as offering the best opportunities to job seekers

Choosing the right credentials can be challenging because many advanced credentials exceed the time, resources and scope of the typical high school curriculum. As a result, states may choose lower-level credentials that do not confer a hiring preference, carry college credits or open the door to a job. States also lack good information on industry credentials because not all third-party industry exam developers share data.

Tennessee is one of the few states in the SREB region that has created a rigorous credential vetting process that involves stakeholders from industry, postsecondary and economic and workforce development agencies. Industry credentials must be vetted by career advisory councils composed of Tennessee industry representatives; aligned with CTE programs of study as part of a system of stackable credentials or capstones; be accepted for credit or hours by postsecondary institutions; and translate into job opportunities above the entry level. Tennessee also requires third-party exam developers to share students' scores with the state.

Dual credit courses and end-of-course exams that carry college credit are an important indicator of career readiness. States need to ensure that the college credits students earn in their career pathways are guaranteed to transfer to their credential or degree of choice and help shorten students' time to completion.

Tennessee's Statewide Dual Credit program aligns learning objectives and exams in certain high school courses with courses at a local postsecondary institution. Students who pass a required online exam can earn credit at any state postsecondary institution. **Beginning in 2015-16, the Tennessee Colleges of Applied Technology began piloting a dual enrollment program that links high school CTE programs with TCAT courses and allows high school students to earn postsecondary credit in fields like diesel technology, cosmetology and mechatronics.** Lottery-funded grants pay the full cost of tuition and fees for a student's first two courses at a community college and partly cover tuition beyond the first two courses. Students taking TCAT courses can receive up to \$600 per semester or \$100 per hour.

Work-based learning experiences. Some states are considering work-based or experiential learning as a measure of technical readiness. In *Credentials for All*, we recommend that schools and employers partner to design structured work-based learning experiences that blend classroom learning with hands-on worksite experiences. Schools and employers should frequently monitor the quality of students' worksite experiences — for example, by evaluating students' on-site performance or the quality of the work-related capstone projects they complete — and generate feedback on readiness gaps that students should address in their school work.

- **Georgia** includes in its multi-measure accountability model the percentage of students who complete career-related work-based learning experiences. High schools can earn bonus points in the state accountability system for these indicators.
- **West Virginia's** more than 1,200 simulated workplaces transform high schools into business environments. The state collects data on these workplaces to meet federal reporting requirements and provide technical assistance. This fall, the state will begin conducting six-point business and industry reviews that will be included in the Balanced Scorecard being developed by the Board of Education. Simulated workplace sites will also begin random drug testing — a move embraced by parents and employers, according to an August 2017 article in *The New York Times*.



Essential Elements of College- and Career-Readiness Accountability Systems

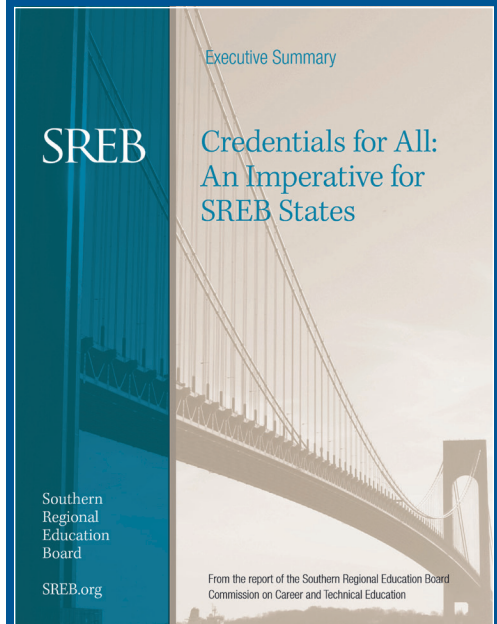
Pacesetter states like **Kentucky** and **Louisiana** have incorporated indicators in their accountability systems that send a clear message to district and school leaders that college readiness and career readiness are being equally valued and measured over time. Other SREB states are promoting the development of career pathways in high-wage, high-demand fields by including those fields in their accountability and funding systems.

At present, however, no single state accountability system currently incorporates all of the indicators needed to ensure that students graduate with the knowledge, skills and dispositions demanded by postsecondary credential and degree programs and employers.

Below, we build on the recommendations made in SREB's *Tenets of State Accountability for Increased College and Career Readiness* document by outlining essential elements of accountability systems that equally value both Cs in college and career readiness. We also offer examples of exemplary state policies and practices. In making these recommendations, we encourage states to embrace simplicity and focus only on those elements that fully prepare students to take advantage of the opportunities available to them after graduation.

In college- and career-readiness accountability systems, states:

- Establish definitions of **college readiness** and **academic and technical career readiness**.
- Set **long-term student achievement and credential attainment goals** — including for the percentage of students who graduate college-ready, career-ready or both — and measure growth toward those goals annually and over time.
- Value **college readiness and career readiness equally**.
- Award **extra weight** — for example, a bonus point or points — for each student who:
 - Demonstrates both college readiness *and* career readiness.
 - Completes a four-course career pathway sequence in a priority industry and earns a passing score on approved end-of-course exams or industry certification exams in those courses.
 - Completes a four-course sequence of AP, IB or AC courses in a targeted STEM field — like advanced manufacturing, clean energy technology or informatics — and scores at the proficient level or above on approved end-of-course exams in those courses.
 - Earns a college- and career-readiness diploma endorsement for completing a college-ready academic core curriculum and a career pathway program of study.
 - Earns an advanced credential or a significant number of credits toward a credential or degree in a priority industry or STEM field.



Learn how to design intellectually demanding career pathway programs spanning grades nine-14 in *Credentials for All* (2015).

sreb.org/cte-commission

State Spotlight: Delaware



The Delaware Promise initiative seeks to ensure that 65 percent of the state's workforce holds a college degree or professional certificate by 2025. Delaware is also using funds from its JP Morgan Chase New Skills for Youth grant to develop and expand career pathways in such high-demand fields as computer science, engineering, finance, health science, information technology and the biomedical sciences. Districts can either adopt one of the state's career pathways or develop their own, provided that their pathways meet labor market demand and align with credential and degree programs. A statewide memorandum of understanding ensures that the credits students earn in a state pathway will transfer to a credential or degree program.



- Use **earmarked funds and bonus points** to incentivize districts and schools to work with two- and four-year postsecondary institutions and employers to develop career pathways in high-demand fields that span grades nine to 14 and include opportunities for students to participate in work-based learning and earn up to 30 college credits before graduating.

Kentucky has had one of the most effective accountability systems in the country. In the state's accountability model, which is currently under review, schools receive one point in the accountability system for each student who meets college-readiness benchmarks or academic and technical career-readiness benchmarks, plus a bonus half-point for each student who meets both. **Since adopting career-readiness measures and the bonus half-point, Kentucky has seen steady increases in the percentage of students who earn three or more CTE credits and achieve college and career readiness — from 34 percent in 2010 to 76 percent in 2016.**



Louisiana awards more points in its accountability system for students who graduate with a Jump Start advanced industry credential leading to high-wage jobs in a high-demand industry than for those who graduate with only a basic credential — and awards the most points for students who earn both an advanced credential and a qualifying AP, IB or College Level Examination Program score.



Georgia's HOPE Career Grant helps students earn credentials and degrees in high-demand industries like computer programming, health science and precision manufacturing. To qualify for a HOPE Career Grant, students must be eligible to receive the state's HOPE Grant, which serves residents pursuing a certificate or diploma at a college or university in Georgia. When combined, the HOPE Career Grant and HOPE Grant fully cover tuition in any of 12 programs of study in high-demand industries. There are no high school GPA requirements or age restrictions for either grant. The state's dual enrollment policies also allow eligible high school students to earn credit toward high school and college requirements.



North Carolina's Career and College Promise program allows high school students to earn free college credits via three pathways: a *college transfer pathway* for traditional college students, an *innovative high school pathway* for early college students, and a *CTE pathway* for students pursuing careers in fields like STEM, manufacturing, health science, information technology and transportation, distribution and logistics.



Meeting the goal of helping at least 80 percent of students achieve readiness, complete pathways and secure well-paying jobs will take effort. We will need to improve the quality of what we teach and how we teach. We will need to develop new kinds of courses and provide professional development that empowers school leaders and teachers to transform instruction.

Learn how on the next page.

How SREB Helps States Support College and Career Readiness

SREB has many years of experience partnering with states and districts to create policies and identify and implement practices that raise the quality of instruction and assignments and improve student achievement. Our professional development providers, instructional coaches and content specialists have successfully supported school reform efforts and served long tenures as school leaders and teacher-leaders. By taking the steps described below with support from SREB, states can meet their accountability goals and increase the percentages of students who graduate college ready, career ready or both.

- **Implement college readiness courses that help high school seniors master the literacy and math skills they need in postsecondary education and the workplace.** SREB's *Literacy Ready* and *Math Ready* courses help students get on track for success (sreb.org/ready). With SREB support, schools use state-approved readiness assessments to identify juniors whose scores fall within a few points of benchmarks and enroll them in one or both courses during their senior year.
- **Identify seventh- or eighth-graders who are not on track to meet readiness benchmarks and enroll them in literacy and math readiness courses in the eighth or ninth grade.** SREB's *Ready for High School Literacy* and *Ready for High School Math* courses help struggling middle grades students get on track to complete a college-ready core and pursue career pathways in high school (sreb.org/ready).
- **Help high schools adopt more rigorous academic and career pathway curricula like AP, IB and Advanced Career courses.** Each course in SREB's four-course AC pathways (sreb.org/ac) uses project-based assignments to connect academic and technical knowledge and skills with students' career interests. In surveys, nearly 90 percent of AC students said that AC projects were challenging and exciting. Nearly three-quarters said that AC helped them form a career goal.
- **Redesign the senior year of high school to erase the lines between secondary, postsecondary and workplace learning.** In schools that adopt SREB's senior-year redesign (sreb.org/SeniorYearRedesign), seniors who meet college-readiness benchmarks can earn up to 30 hours of credit toward an advanced credential or degree. Seniors whose 11th-grade assessment scores fall shy of benchmarks take special readiness courses that prepare them for credit-bearing postsecondary studies. Seniors whose scores fall well below benchmarks receive services that enhance their skills, help them make good education and career choices, and prepare them to transition to employment, military service or advanced education and training.
- **Invest in career pathways spanning grades nine to 14 that prepare students for well-paid, highly skilled jobs.** SREB spent a year partnering with Kentucky educators and the Health Careers Collaborative of Greater Louisville to develop a 120-credit hour nursing pathway leading to the Bachelor of Science in Nursing (learn more at sreb.org/nursing-career-pathways). This pathway allows high school students to complete college-level nursing prerequisite and foundational courses — up to 30 hours of dual credit — and obtain a nurse's aide certification. After graduation, students continue their studies in seamlessly aligned programs leading to careers as licensed practical nurses, registered nurses with associate degrees and registered nurses with bachelor's degrees. States may find that grant funds encourage districts to develop pathways in high-skill, high-demand sectors that blend college-ready academics with high-quality pathway curricula like AC.
- **Provide professional development that helps teachers in every discipline use literacy-based strategies and assignments to increase student achievement.** SREB's literacy professional development helps teachers in grades three through 12 engage students in reading, understanding, writing and speaking about grade-level texts (sreb.org/literacy).
- **Show math teachers how to use powerful math practices and formative assessment lessons to advance students' math understanding and reasoning skills.** SREB's math professional development helps math teachers shift their instruction from a procedural, test-prep approach to a balanced approach in which students learn how to apply math concepts to solve complex abstract and real-world problems (sreb.org/mathematics).
- **Adopt classroom observation tools that empower teachers and school leaders to better integrate literacy and math strategies in their classrooms.** SREB shows principals how to use these tools to identify effective instruction and provide teachers with feedback.
- **Prepare CTE teachers to design standards-driven, project-based assignments** that require students to think creatively, work in teams and apply academic, technical, technological and soft skills to solve workplace problems. SREB offers professional development, coaching and support on how to design project-based assignments. SREB's Teaching to Lead teacher preparation program builds new CTE teachers' capacity to plan instruction, engage students, manage classrooms and design standards-driven instruction and assessments (sreb.org/teaching-lead).

Next Steps

As workplace requirements continue to rise, more jobs will require individuals to possess advanced credentials and degrees and the broad mix of academic, technical and workplace skills employers prefer. Our nation's economic growth and security rest on our ability to close critical credential attainment and skills gaps and prepare more students for success after high school.

The truth is, for a third or more of our young people, high school may be their last best chance to get a head start on an advanced credential that helps them enter the labor market and pursue additional education. Career pathways are a common-sense, evidence-based approach to helping more youth not only secure good jobs and launch fulfilling careers, but also develop a purpose and plan for their postsecondary studies. That's because high-quality career pathway programs offer a different approach to learning — one in which students apply academic skills and hands-on technical know-how to solve real-world problems. The overwhelming majority of American parents want their children to have educational experiences that prepare them for both careers and postsecondary studies, according to Phi Delta Kappa's 2017 national poll.

With this document, we hope to spark ongoing conversations among policymakers, educators, employers and parents regarding how we can refine our state accountability systems to reward districts and schools for building pathways that truly prepare students for a **double purpose — college and careers**. SREB will be here to help. Contact gene.bottoms@sreb.org or call (404) 879-5529.

References

- ACT. (2017). *The condition of college and career readiness 2017*. Iowa City, IA: Author.
- ACT. (2016). *Using your ACT WorkKeys scores*. Iowa City, IA: Author.
- Aliaga, O. A., Kotamraju, P., & Stone, J. R., III. (2012, October). *A typology for understanding the career and technical education credit-taking experience of high school students*. Louisville, KY: National Research Center for Career and Technical Education, University of Louisville.
- Bailey, T. (2009). Challenge and opportunity: Rethinking the role and function of developmental education in community college. *New Directions for Community Colleges: Policies and Practices to Improve Student Preparation and Success*, 145, 11-30.
- Belfield, C. R., & Crosta, P. M. (2012). *Predicting success in college: The importance of placement tests and high school transcripts*. New York, NY: Community College Research Center, Teachers College, Columbia University.
- Bottoms, G., Spence, D., & Young, M. (2009). *The next generation of school accountability: A blueprint for raising high school achievement and graduation rates*. Atlanta, GA: Southern Regional Education Board.
- Bottoms, G., & Sundell, K. (2015). *Credentials for all: An imperative for SREB states*. Atlanta, GA: SREB.
- Business Roundtable. (2017, June). *Work in progress — How CEOs are helping close America's skills gap*. Washington, DC: Author.
- Carnevale, A. P., Jayasundera, T., & Gulish, A. (2015). *Good jobs are back: College graduates are first in line*. Washington, DC: Georgetown University Center on Education and the Workforce.
- Carnevale, A. P., Smith, N., & Strohl, J. (2013). *Recovery: Job growth and education requirements through 2020*. Washington, DC: Georgetown University Center on Education and the Workforce.
- Castellano, M. E., Sundell, K. E., & Richardson, G. B. (2017). Achievement outcomes among high school graduates in college and career readiness programs of study. *Peabody Journal of Education*.
- Goldstein, D. (2017, August 10). Seeing hope for a flagging economy, West Virginia revamps vocational education. *The New York Times*.
- Grovenstein, E. (2015). Transforming developmental education in North Carolina's community colleges. *Concepts*. Durham, NC: The Hunt Institute.
- Hamilton, S. F., & Hamilton, M. A. (1997). When is learning work-based? *Phi Delta Kappan*, 78(9).
- Kemple, J. J., & Snipes, J. C. (2000). *Career academies: Impacts on students' engagement and performance in high school*. New York, NY: MDRC.
- Kemple, J. J., & Willner, J. (2008). *Career academies: Long-term impacts on labor market outcomes, educational attainment, and transitions to adulthood*. New York: MDRC.
- Oklahoma State Regents for Higher Education. (2017). *Undergraduate transfer and articulation policy*. Oklahoma City, OK: Author.
- Phi Delta Kappa International. (2017). The 49th annual PDK poll of the public's attitudes toward the public schools. *Phi Delta Kappan*, 99(1).
- Southern Regional Education Board. (2016). *2016 college- and career-readiness profiles*. Atlanta, GA: Author.
- Southern Regional Education Board. (2015). *Community colleges in the south: Strengthening readiness and pathways*. Atlanta, GA: Author.
- Spence, D., Gagné, J., & Lord, J. (2017). *Tenets of state accountability for increased college and career readiness*.
- Stone, J. R. (2017). Intro to pathways to a productive adulthood: The role of CTE in the American high school. *Peabody Journal of Education*.

SREB

592 10th St., N.W.
Atlanta, GA 30318-5776
(404) 875-9211

NON-PROFIT ORG.
U. S. POSTAGE
PAID
ATLANTA, GEORGIA
PERMIT No. 404



SREB can help you prepare more students for success after high school.

17V18

OCTOBER 2017