



## THE WASHINGTON STATE BOARD OF EDUCATION

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*A high-quality education system that prepares all students for college, career, and life.*

### **2016 Presentation and Discussion: Ms. Kristen Amundson**



#### **Kristen Amundson**

National Association of State Boards of Education  
Executive Director

The Hon. Kristen Amundson brings more than two decades of experience as a policymaker to NASBE. She represented the 44th District in the Virginia General Assembly from 1999 to 2009. During that time, she was a member of Virginia's P-16 Council and the Southern Regional Education Board (SREB). Before her election to the General Assembly, Amundson—a former teacher—served for nearly a decade on the Fairfax County, Va., School Board, including two years as its chairwoman. Most recently, she was the senior vice president for external affairs at Education Sector, an independent think tank. She writes frequently on education issues and has been published in *The Washington Post* and the *Richmond Times-Dispatch*, among others.

Ms. Amundson has included the following documents for our review in preparation for our discussion:

1. G. Bottoms and K. Sundell. "Career Pathways: Accelerating Access to the Middle Class." Southern Regional Education Board (SREB). July 9, 2016.
2. N. Nayar. "How Are States Reporting on College and Career Readiness?" College & Career Readiness & Success Center. American Institutes for Research. August 2015.
3. A. Nguyen. "Kansas Loops Stakeholders in on Conversations about K-12 Policy." National Association of State Boards of Education. *State Innovations*. 21:3 (October 2016).

# Career Pathways: Accelerating Access to the Middle Class

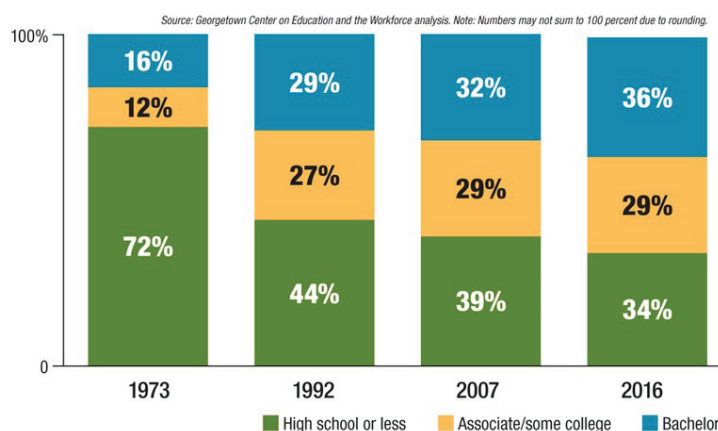
*Career pathways and college-ready academics have the power to move more students into the deeper end of the employment pool — and into the middle class.*

Gene Bottoms, Senior Vice President, Southern Regional Education Board (SREB)  
 Kirsten Sundell, Director, Product Development & Communications, Career Pathways, SREB

Since the 1970s, the United States has seen a steady rise in the education needed for a good job. In 1973, 72 percent of all jobs were held by individuals with a high school diploma or less, and 28 percent were held by those with some college. Forty-some years later, our educational and economic landscapes have undergone a seismic shift: In 2016, just 34 percent of all jobs filled since 2010 were held by workers with high school diplomas or less; 65 percent of jobs went to people with associate and bachelor's degrees.

**Based on current trends, by the mid-2020s, an even greater percentage of jobs will require some postsecondary education, meaning a credential, certificate, associate or bachelor's degree, or higher.**

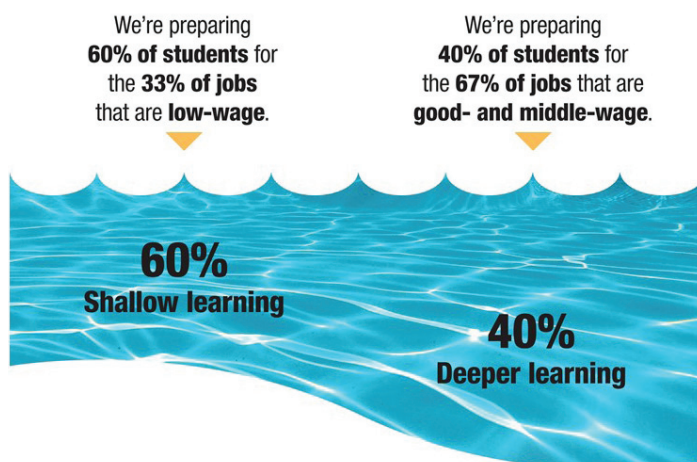
**Rise in Education Level for Jobs, 1973 - 2016**



In the new economy, good jobs — those paying an annual wage of \$52,000 per year or more, often with benefits — mostly go to those with a bachelor's degree or better or highly specialized technical skills. During the recent recovery, 2.9 million of 6.6 million new jobs added to the economy were such good jobs, compared to 1.9 million middle-wage jobs paying between \$32,000 and \$53,000 and 1.8 million low-wage jobs paying \$32,000 or less. Post-recovery, individuals with a high school diploma or less have continued to lose jobs at every wage tier, but especially in the middle- and low-wage categories.

**Where is the economy adding jobs?** High-wage professional and technical jobs in health care and science, technology, engineering and mathematics (STEM) are in high demand. So too are managerial and professional office jobs. Middle-wage jobs — those requiring some college or an associate degree — are on the rise in business, education, community services, and such “blue-collar” fields as welding, automotive and industrial technology, and highway maintenance. Many new low-wage jobs are in food service, health care, office support, personal services and retail. Low-wage jobs offering good growth and mobility are found in fields like construction, manufacturing, and transportation, distribution and logistics.

Across every industry, individuals need a mix of skills to secure middle- and high-wage jobs. The Business Roundtable convened leading employers to discuss what they look for when hiring. Business leaders described *personal skills*, like dependability and professionalism, as well as *people skills*, like the ability to function on a team and communicate well. *Workplace skills* include the ability to plan, organize and make decisions carefully and use tools and technologies with ease. Finally, business leaders cited a strong need for *applied knowledge* — the foundational literacy, math, science and critical-thinking skills to adapt in the workplace.



## What does the educational and economic landscape look like for our youth?

Just 40 percent of American youth are being taught to college- and career-readiness standards in core academic disciplines. In the middle grades and high school, many students are being tracked into “general” or “basic” English, math, science and social studies classes and outdated career and technical education (CTE) classes with unchallenging assignments that neither enhance students’ academic, technical and workplace skills nor nurture the personal qualities employers need.

*Most American students may be headed for the shallow end of the employment pool.*

**As a result, many young people are leaving school unprepared for the rigors of college or the demands of the workplace.** A large percentage of those who do enroll in college end up stuck in remedial studies — about 50 percent of first-year community college students test into at least one developmental reading or math course. Many of these students will never finish a certificate or degree. SREB’s Commission on Community Colleges reports that, among students assigned to more than one remedial course, less than 10 percent will complete a credential or degree.

**Without further education, many young people will spend their 20s in a succession of low-level jobs — or unemployed.** Nationwide, 12 percent of youth aged 16 to 24 are unemployed, with much higher rates for minorities — nearly 21 percent for African-American young adults and nearly 13 percent for Hispanic youth. In SREB states, youth unemployment rates are typically higher. Many of the low-wage jobs formerly available to young people with a high school diploma or less and little to no work experience are now being filled by individuals with some college and more work experience. Too few students are graduating ready to pursue and earn advanced industry and postsecondary credentials and degrees in high-demand career fields.

### Career Pathways vs. Aspirations: Transcript Outcomes of 2013 Graduates

Source: Education Trust.

Pathway / curriculum completed	% who completed	% who planned bachelor’s or higher	% who planned associate or higher
College and Career Ready	8%	77%	11%
College Ready	31%	78%	12%
Career Ready	13%	52%	22%
No Cohesive Curriculum	47%	61%	17%

**National data are clear: Educational experiences in the middle grades and high school affect students’ readiness for college and careers.** The Education Trust examined over 23,000 student transcripts and found that nearly half (47 percent) of all students in the United States completed neither a college-preparatory curriculum (such as a set of college-ready academic courses) nor a career-preparatory curriculum (at least three CTE courses in a pathway, for example). Of these students, 61 percent reported that they planned to pursue a bachelor’s degree. Overall, just 8 percent of all students completed a college- and career-preparatory curriculum — but 77 percent of them indicated that they planned to pursue a bachelor’s degree. Among those who completed *either* a career-ready curriculum or a smorgasbord of non-college and career prep courses, far fewer planned to pursue a bachelor’s degree (52 and 61 percent) or an associate degree (22 and 17 percent).

Data from SREB’s High Schools That Work network tell a similar story. The table below compares college readiness outcomes and aspirations for 26,844 HSTW students in 2014. Fifteen percent of HSTW students completed a college-ready academic core *plus* at least four rigorous career pathway courses; 73 percent of these students planned to pursue a bachelor’s degree. The *HSTW-recommended college-ready core* is four years of college-prep English, four years of college-prep math and three college-prep lab science courses. SREB defines rigorous career pathway courses as those that cultivate students’ academic, technical, technological and workplace readiness skills through project-based instruction and assignments (see the sidebar). Most students who completed a college-ready core plus a rigorous pathway met college-readiness benchmarks in reading (81 percent), math (81 percent) and science (78 percent).

#### Rigorous Assignments in Career Pathway Courses Require Students to:

1. Perform background research (e.g., read technical articles) to support planning.
2. Predict outcomes based on observations or information.
3. Develop logical arguments.
4. Draw inferences from information.
5. Use math to solve complex problems.
6. Apply academic skills to a career area.
7. Apply technical skills to new situations.
8. Develop and test hypotheses.
9. Complete extended projects that require planning solutions and presenting results orally and in writing.
10. Use software and technology related to a career area to complete assignments.

## Career Pathways vs. College Readiness and College Aspirations

	College-ready core + rigorous career pathway	College-ready core + weak career pathway	Weak academic core + career-ready pathway
Completed all of HSTW-recommended academic core	15%	14%	71%
<b>1. Met college-readiness standards</b>			
Reading	81%	64%	40%
Math	81%	64%	50%
Science	78%	62%	45%
<b>2. Percentage with postsecondary aspirations</b>			
BS degree or higher	73%	63%	46%
AA/AS/Postsecondary training	19%	20%	24%

**Completing a rigorous career pathway appears to enhance the college readiness of students who complete a college-ready core.** SREB examined outcomes for students who completed a college-ready core but a weak career pathway — that is, courses in which students experienced less rigorous assignments — and found both lower educational aspirations and much lower rates of readiness in reading, math and science than students who completed a college-ready core and a rigorous career pathway.

**Completing neither a college-ready core nor a rigorous career pathway also hurts students' readiness for college and careers.** Among students who completed a weak academic core (e.g., those who took “basic” courses) and weak career pathways, just 46 percent sought a bachelor’s degree. Far fewer of these students met readiness benchmarks in reading, math and science than students who completed a college-ready core and a pathway.

**National data show fewer high school students pursuing career pathways to postsecondary studies and employment.** In an analysis of high school CTE course-taking data, the National Research Center for Career and Technical Education at SREB found that the number of students completing a concentration of at least three CTE courses has been on the decline since 2007. Eight clusters identified as high-growth occupational areas — like architecture and construction; business management and administration; information technology (IT); manufacturing; and transportation, distribution and logistics — have all experienced declining enrollments, some as steep as 54 percent (IT) and 45 percent (manufacturing). One high-growth exception to this trend is health science.

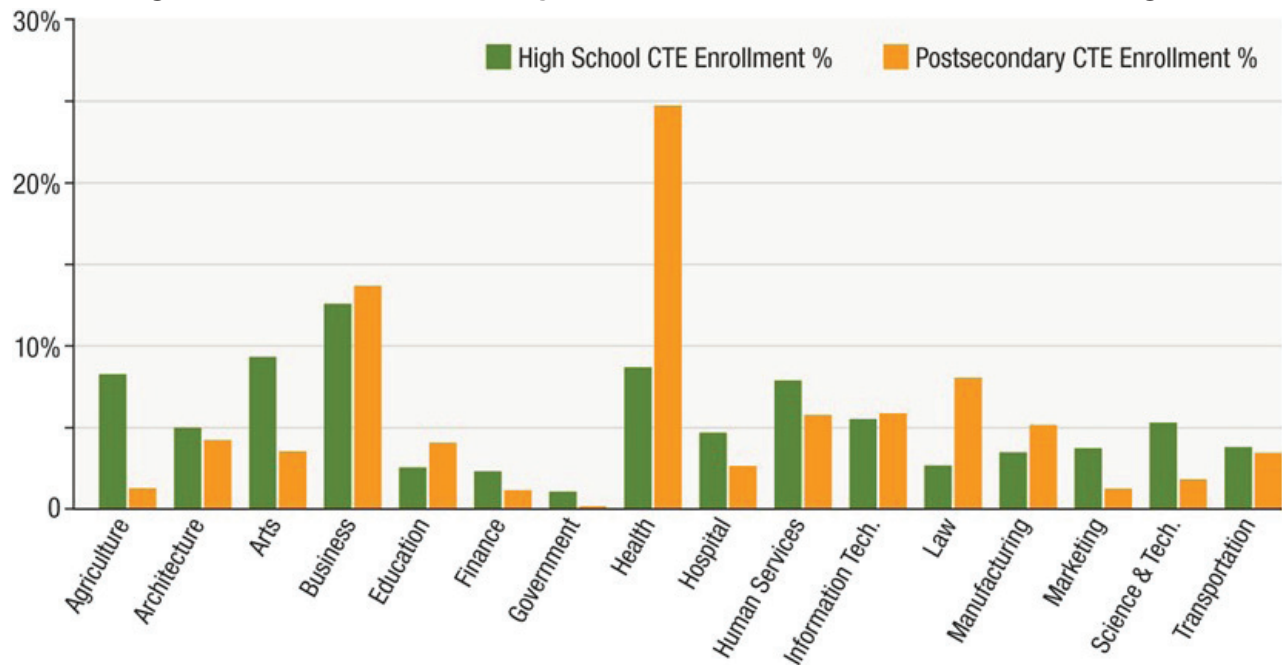
**National data also show a disconnect between high school and postsecondary career pathways and areas of economic growth.** The graph below shows five-year average enrollment percentages by occupational cluster for the period 2011-2015. The largest disconnect is in the high-growth field of health science, which enrolled fewer than 10 percent of high school students but about 25 percent of postsecondary students. SREB educational consultants note that many high school health science programs do not teach an intensive health science curriculum in the context of college-ready academics, which would prepare students to not only acquire a credential — such as a nurse’s aide credential, for example — but also master the high-level literacy, math and science skills needed to secure careers as licensed practical nurses, registered nurses and related professions.

**CTE enrollment is also low in high school and postsecondary IT programs.** SREB’s Commission on Computer Science and Information Technology reports that jobs in computer science and IT fields are a large and growing sector of the U.S. economy. By 2020, as many as 4.6 million of 9.2 million STEM jobs will be computer-related. Most — by one estimate, over 70 percent — require a bachelor’s degree or more. Computer science and IT jobs also pay well, with an average median salary of \$81,430. But Code.org reports that as many as 1 million of these jobs may go unfilled. In the absence of homegrown talent, many businesses are recruiting foreign workers with computer science, IT and STEM skills. SREB’s Commission on Computer Science and IT urges states to convene advisory councils that bring together secondary and



postsecondary educators, workforce development agencies, industry leaders, parents and other members of the community around the shared goal of creating or expanding career pathways from high school to college to careers in computer science, cybersecurity and other high-demand fields.

**High School vs. Postsecondary CTE Enrollments, 2011-2015 5-Year Average**



## What are all these data telling us?

**First, counselors, teachers and parents are not encouraging high school students to take college-ready academic courses or to pursue career-ready technical studies.** Advisement systems must encourage *all* students to complete a college-ready core *in addition* to a concentration, which would be (a) a career pathway consisting of four or more courses leading to college credentials and degrees in high-demand fields, (b) a selection of Advanced Placement (AP), International Baccalaureate (IB) or honors courses aligned with their intended college major, or (c) a mix of both career pathway courses and AP, IB and honors courses.

**Second, much work remains to align intellectually rigorous career pathways with rising labor market demand in fields like advanced manufacturing, computer science, IT and even business.** High school, postsecondary and employer partners share responsibility for creating structured career pathways that show young people how their high school courses lead to advanced credentials and associate and bachelor's degrees. Working with these partners, states need to prioritize the development of pathways in fields that matter to their economies. This means establishing criteria for redesigning pathways that no longer prepare individuals for good jobs and infusing existing pathways with rigorous assignments that enhance students' academic, technical, technological, critical-thinking and employability skills. *Credentials for All*, the report of SREB's Commission on Career and Technical Education, offers strategies for building career pathways that blend college-ready academics with challenging technical studies and put more students on a fast track to credentials, degrees and good jobs.

## Steps States Can Take to Build Career Pathways to the Middle Class

**We believe that career pathways and college-ready academics have the power to move more students into the deeper end of the employment pool — and into the middle class.**

SREB's **High Schools That Work** model transforms high schools by connecting secondary and postsecondary studies with workplace learning. At its heart is a redesigned senior year that blends a college-ready academic core with career pathway courses taught through project-based instruction and assignments. Schools can adopt the model as a wall-to-wall career academy design.

Three broad career pathway options featuring dual enrollment courses allow students to graduate with up to two semesters of college credits (or 30 credit hours) toward an associate or bachelor's degree. Dual enrollment courses are *taught on the same schedule* as at the college using college syllabi, tests and materials, with time built in for students to complete labs, internships and capstones.

- HSTW's **Ready** option puts underprepared students on a path to college studies. Schools use state readiness assessments to identify ninth and 12th graders who need extra help meeting literacy and math benchmarks. Specialized ninth and 12th-grade readiness courses help students meet benchmarks and graduate with up to 15 hours of college credit.
- HSTW's **Accelerated** option allows prepared seniors to complete graduation requirements and up to two semesters of college courses toward an associate degree.
- HSTW's **Accelerated+** option allows seniors to earn credits toward a four-year bachelor's degree.

In all pathway options, academic and career pathway teachers work together to integrate instruction and project-based assignments; all students engage in career counseling and in experiential learning such as job shadowing, service learning or internships. Pathway courses and college courses are offered by certified high school teachers or by college faculty at the high school, online or at the college.

The new HSTW model is designed to help states double the percentage of young people who earn a credible credential or degree before the age of 25. Kentucky, Oklahoma, Tennessee and West Virginia have already started the journey to reshape the senior year of high school through quality career and technical studies.

Many states are also studying their career pathway systems and taking steps to strengthen them. For example, eight SREB states number among the 24 states that received career pathway planning grants from JPMorgan Chase and its partners, the Council of Chief State School Officers (CCSSO) and AdvanceCTE, the association of state CTE directors. Grant recipients are working with organizations like SREB to conduct intensive needs assessments of their education and workforce training systems.

### **SREB strongly advises states to conduct needs assessments to determine whether their existing pathways align with postsecondary studies and high-demand careers.**

Following the CCSSO model, needs assessments should determine if state career pathway systems:

- Are informed by real-time labor market data
- Use policies and funding incentives to improve the quality and rigor of career pathways
- Include accountability measures that capture pathway outcomes
- Feature scaled pathways that culminate in a postsecondary or industry credential of value
- Align varied state and federal funding streams
- Foster cross-institutional collaboration among education, industry and community partners

### **Other steps states can take to build career pathways to the middle class:**

- **Align high school and postsecondary pathways with high-demand, high-paying career fields.** States need access to reliable, real-time education, employment and workforce data. Longitudinal data systems can help states assess pathway quality and better align their pathways with workforce needs, now and in the future. States can use these data to determine which career pathways to fund, redesign or retire. In **Delaware**, new career pathways must demonstrate alignment with good job opportunities to qualify for set-aside funding.
- **Reconfigure the senior year of high school to allow students to earn an advanced industry credential and significant college credits toward an associate or bachelor's degree.** Students who meet literacy and math readiness benchmarks take challenging college-level courses while completing academic requirements for graduation and continuing to enjoy high school activities. Ninth- and 12th-grade readiness courses help struggling students get on track for college-level studies. States can offer accelerated pathways in career academies, early college high schools, two- and four-year colleges, technical high schools, shared-time tech centers and online or blended learning programs.

### **HSTW's Redesigned Framework**

In HSTW sites, all students:

- Complete a **career pathway** of four or more courses taught in the context of a **college-ready academic core**.
- Master college- and career-ready **literacy and math skills**.
- Receive **extra time and support** to achieve readiness.
- Have access to **ninth- and 12th-grade readiness courses** that help them meet grade-level literacy and math benchmarks.
- Complete **real-world project-based assignments** that blend academic, technical and workplace skills.
- Participate in a series of **work-based learning experiences** that build skills and encourage career exploration.
- Receive **high-quality career guidance and counseling** that helps them make informed choices about careers and college.
- Spend their senior year taking **college-level courses** that put them on a fast track to earning an advanced credential or degree.
- Learn within a **culture of continuous improvement** in which all school personnel commit to increasing college and career readiness.

- **Redesign middle grades and high school assignments in all core academic and career pathway courses to align with grade-level college- and career-readiness standards.** Challenging, project-based assignments are critical to student success. In a project-based approach, teachers encourage students to take ownership of their learning and apply a range of academic, technical, technological, cognitive and workplace skills to solve real problems. **SREB’s Advanced Career curricula** were explicitly designed to help students master these skills through project-based assignments. Employer partners not only help shape the content of these assignments, they also mentor AC students and judge their work. Between 85 percent and 90 percent of AC students perceive their classes as rigorous and demanding.
- **Create strong career and college counseling programs that show students the many routes to further education and fulfilling careers.** In curriculum-based teacher advisement systems, teachers and counselors work together to design lessons that help students understand their career interests, plan their courses and identify a focus for postsecondary studies.
- **Transform low-performing high schools into career-preparatory cultures.** All students should be prepared for a full range of postsecondary options, including two- and four-year colleges, technology centers and learn-and-earn programs. In career-preparatory schools, all students take a college-ready core plus four or more pathway courses taught through project-based assignments. *Credentials for All* and the new HSTW model offer powerful solutions for transforming schools.
- **Reform middle grades schools using recommendations in *A New Mission for the Middle Grades*.** This report of the SREB Middle Grades Commission offers goals and strategies for preparing students for high school and postsecondary studies. Strategies include focusing the curriculum on literacy and STEM disciplines and requiring students to complete academic and career plans.
- **Establish accountability systems that value both college and career readiness.** States need to set expectations for what it means to be academically college-ready as well as academically and technically career-ready. Multi-measure accountability systems value career readiness by including outcomes that matter regardless of whether high school graduates immediately transition to higher education or enter the workforce. Such outcomes include the percentage of high school students who:
  - o meet academic college-readiness benchmarks or academic and technical career-readiness benchmarks, with bonus points for meeting both
  - o demonstrate readiness by acquiring industry credentials, completing capstone courses, earning dual credits or passing end-of-course assessments for college credit
  - o complete pathways consisting of a college-ready core and at least four career pathway courses
  - o immediately transition to postsecondary programs of any kind

**Kentucky** awards one point for each student who meets (a) college-ready academic benchmarks or (b) career-ready academic and technical benchmarks. Schools earn a bonus half-point for each student who meets both college-ready academic *and* career-ready technical benchmarks. Since adopting this model, Kentucky has seen a significant increase in the percentage of students meeting college- *and* career-ready benchmarks — from 34 percent in 2010 to 67 percent in 2015. And in contrast to national trends toward declining enrollment, the number of Kentucky students in career concentrations has increased. Education-industry partnerships in high-demand fields are also on the rise, spurring the creation of a full-time technical high school, a pre-apprenticeship program and career academies statewide.

### Kentucky’s College- and Career-Readiness Accountability Measures

College Ready (1 Point) A student must meet benchmarks on one of the following	Career Ready (1 point) A student must meet benchmarks on one from <u>each</u> of the following columns		College & Career Ready (1.5 Points) A Student must meet benchmarks on one from <u>each</u> of the following columns	
	Career Ready Academic	Career Ready Technical	College Ready Academic	Career Ready Technical
ACT or COMPASS or KYOTE	ASVAB or WorkKeys	KOSSA or Industry Certificate	ACT or COMPASS or KYOTE	KOSSA or Industry Certificate

## Closing the Gap with Career Pathways

Rising workplace requirements mean that our young people face serious competition for well-paying jobs from better-educated individuals and even foreign workers. To compete, young people need deeper educational and workplace experiences that equip them with the lifelong learning skills they need to secure — and sustain — a middle-class way of life.

Simply put, our existing educational system is not keeping pace with these rising requirements. It is well past time to address growing skills gaps in fields like advanced manufacturing, business, computer science, health care and STEM. Our national economy and security demand it.

Career pathways offer a solution to the skills gap because they challenge students to solve real-world problems by harnessing college-ready academic knowledge and hands-on technical, technological and workplace skills. Career guidance and counseling empowers students to understand and explore their interests and aptitudes, then create customizable road maps to their postsecondary and career goals.

Implementing career pathways will be a heavy lift. Government agencies, high school and college educators, and employer partners will need to collaborate and share finite resources. Teachers will need many hours of professional development to master the best practices of student-centered, project-based instruction. Schools will need to devote resources to help all students complete a college-ready curriculum and offer support to those who fall short of readiness benchmarks. High schools and two- and four-year postsecondary institutions will need to work together to put more students on an accelerated path to valuable credentials and degrees. The time to take on this heavy lift is *now*, before we lose another promising young person to 10 years or more of unemployment or underemployment.

*Career pathways offer a solution to the skills gap because they challenge students to solve real-world problems by harnessing college-ready academic knowledge and hands-on technical, technological and workplace skills.*

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**We can help.** SREB offers technical assistance to states, districts, schools and technology centers seeking to design their own career pathways, adopt SREB's Advanced Career curricula or create career academies leading to 21st-century labor market opportunities. Contact [gene.bottoms@sreb.org](mailto:gene.bottoms@sreb.org) to learn more.



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for college and career success.*



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# How Are States Reporting on College and Career Readiness?

## Introduction

Preparing students for success in college and careers is one of the primary goals of our education system. How states track and report progress toward the goal of college and career readiness is important for public accountability and transparency; making data available publicly provides a window into how students—and the institutions that serve students—are doing. This brief describes the range of college and career readiness measures states are currently reporting publicly. The brief also provides guidance for what states should be doing to measure students' college and career readiness.

## What Are States Reporting Now?

Other than federally required indicators (student achievement in mathematics and English language arts, graduation rates), state public reporting on college and career readiness measures varies widely. This brief looks at 2014 public data reporting from all 50 states and the District of Columbia and identifies metrics that might correlate to or predict college and career readiness in the areas of:

- Academic content
- Pathway knowledge
- Lifelong learning skills
- Postsecondary outcomes<sup>1</sup>

## State Academic Content Metrics

The 3 *Rs*—reading, writing, and arithmetic—are the most widely understood purpose of schooling in America, and all states have made substantial investments in measuring student academic performance in these areas. As Figure 1 shows, all states and the District of Columbia report student performance on

<sup>1</sup> These areas align with the CCRS Center's College and Career Readiness and Success Organizer.

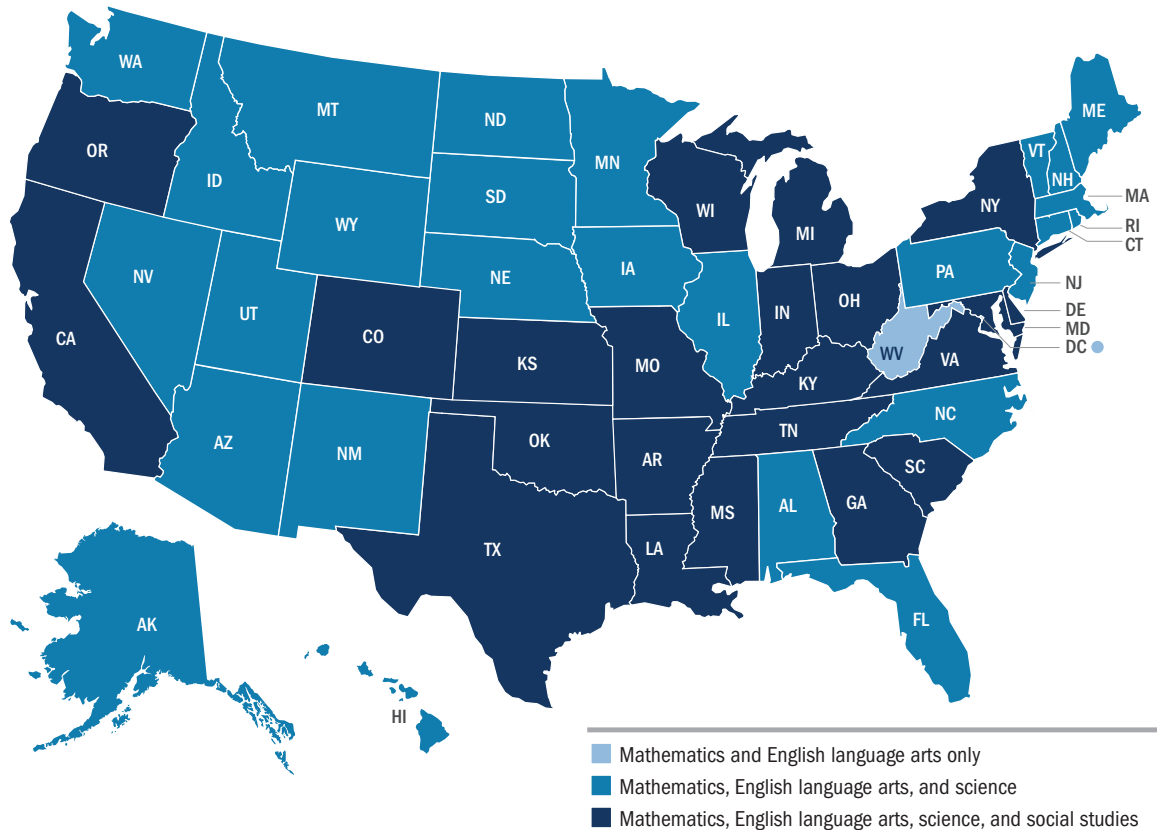
**The selection process** was guided by the indicators outlined in the College and Career Readiness and Success (CCRS) Center's Predictors of Postsecondary Success, with the addition of measures of risk-taking behavior, civic engagement, and other factors that are correlated with postsecondary success.

Specifically, the scan includes measures that were reported:

- A. Publicly
- B. Between 2013 and 2014
- C. By the state or higher education institutions or consortia as part of a data-sharing agreement

assessments of mathematics and English language arts (including end-of-course exams and graduation exams). Forty-nine states report student performance on assessments of science. Of those states that report science, 21 states also report performance on assessments of social science.

**Figure 1. State Reporting on Common Student Academic Content Measures**



Note: Academic content measures reported above include student performance, by subject, on state assessments, including proficiency exams, end-of-course exams, or graduation exams.

Many states choose to report additional academic content measures. ACT and SAT scores are popular measures, because the tests are widely used and the results are easily accessible.



- 24 states reported student performance on the ACT.
- 17 states reported participation in the ACT.
- 12 states reported on the number or percentage of students meeting ACT benchmarks or specific cutoff scores.

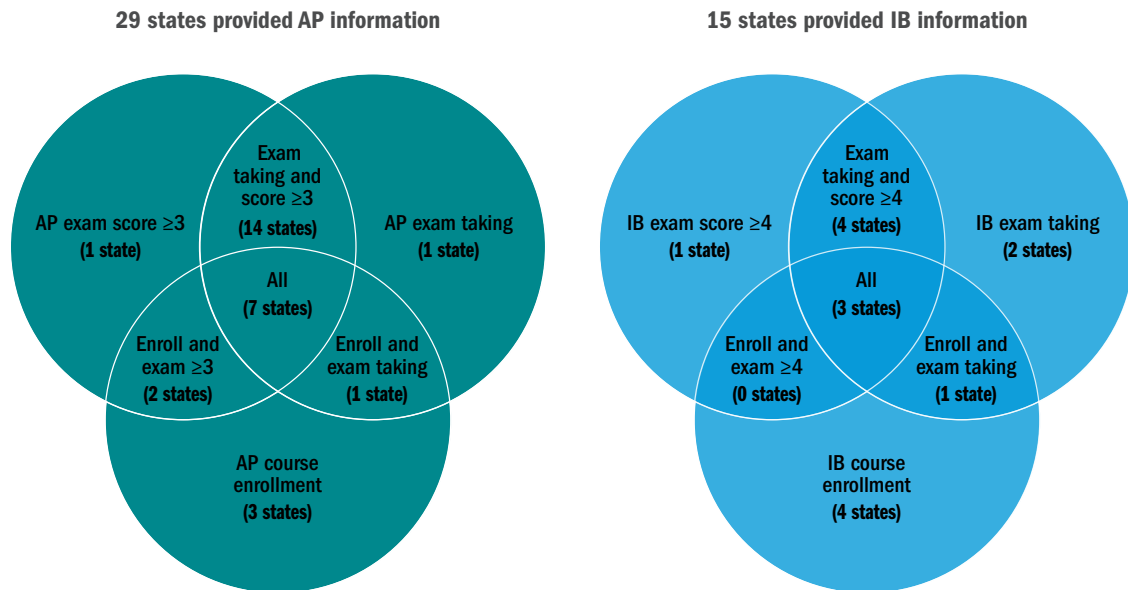


- 21 states reported student performance on the SAT.
- 17 states reported participation in the SAT.
- 6 states reported on the number or percentage of students meeting SAT benchmarks or specific cutoff scores.



Many states also report information about Advanced Placement (AP) and/or International Baccalaureate (IB) scores. This information is easily accessible, but a report of scores on the exams without a report of the number of students taking the course (or at the very least, the exam) does not convey a true picture of student success.

**Figure 2. AP and IB Data Reporting Across States**



Beyond standardized exam scores, course taking is another source of information regarding students' college and career readiness.

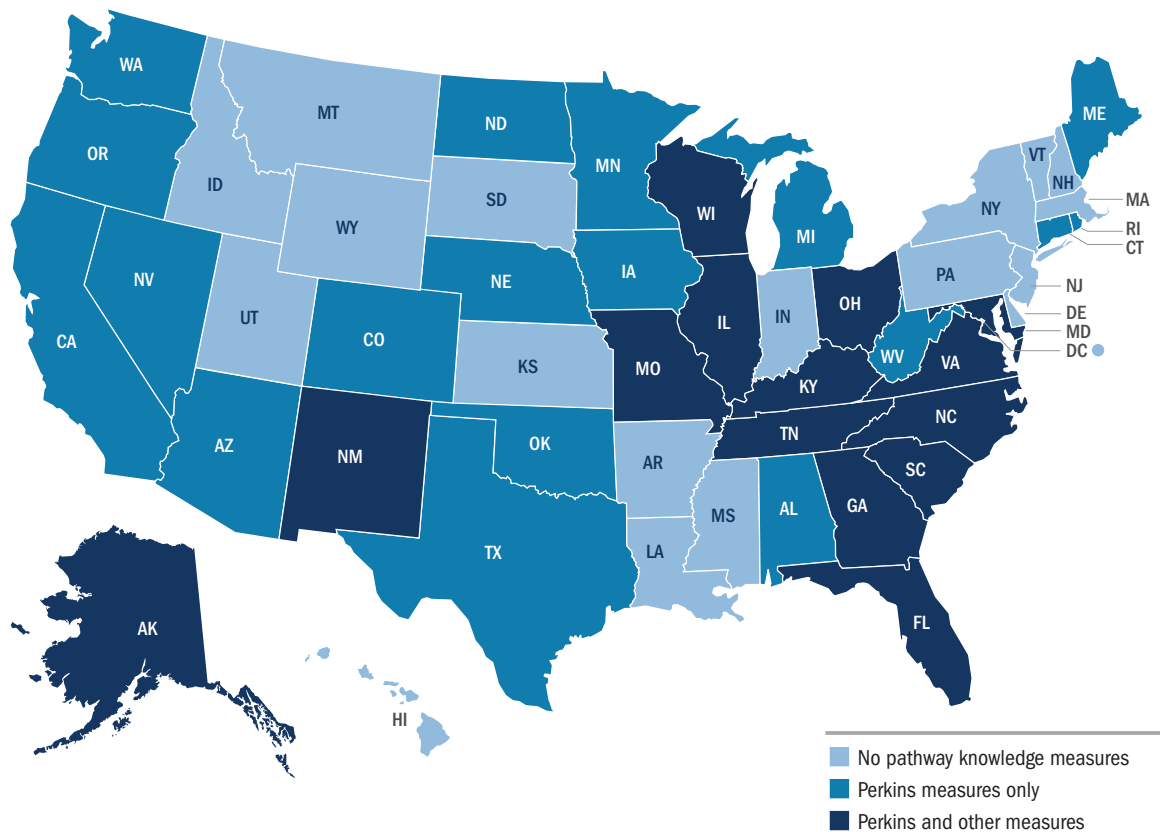
- **College preparatory coursework.** Fifteen states reported student participation in dual enrollment courses, and five states reported students' completion of a college preparatory course sequence (by the states' respective definitions).
- **Art and foreign language coursework.** Five states reported students' enrollment and credits in arts or foreign language, which are requirements for college admission in some states.



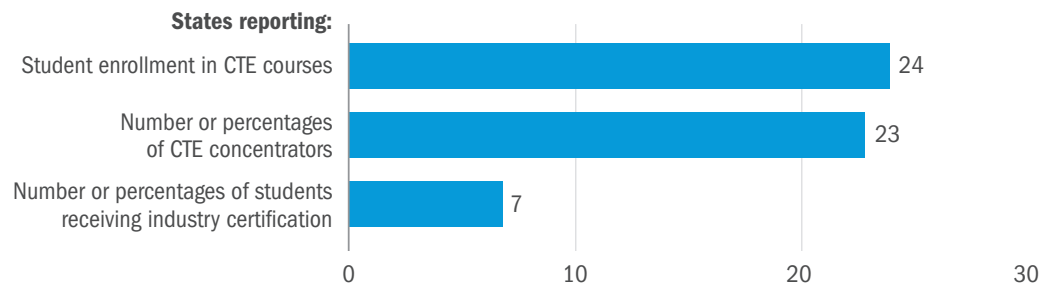
## State Pathway Knowledge Metrics

Readiness for careers at the end of K–12 education is key for the more than 50 percent of high school graduates who either do not enroll in postsecondary education or who work and attend college at the same time (United States Department of Labor, Bureau of Labor Statistics, 2015). As part of federal Carl D. Perkins Career and Technical Education Act reporting, all states are required to collect and report data on students who participate in career and technical education (CTE), as well as data on those students who “concentrate” (take two or more courses in the same CTE pathway). Industry certifications are the most commonly reported non-Perkins measure of workforce readiness. However, as Figure 3 shows, only 34 states currently report any measures of career pathway knowledge—including Perkins or other measures—to the public.

**Figure 3. State Reporting on Common Student Pathway Knowledge Measures**



**Figure 4. Perkins and Other Common Pathway Knowledge Measures**



**STATE POLICY** Examples

Georgia and Kentucky stand out as examples of states that have made significant efforts to measure and report their students' progress toward career readiness.



**Georgia** reports career and technical student organization participation; industry credentials; JROTC (Junior Reserve Officer Training Corps) enrollment; CTE-specific dual enrollment; and a number of unique indicators, such as “Grade 5 students with a complete career portfolio” and “middle school students earning a passing score in three career exploratory courses” and “percentage of graduates completing a career-related work-based learning program or capstone program.”



**Kentucky** provides, in addition to CTE participation and concentration percentages and industry certifications, test results for the Armed Forces Vocational Aptitude Battery, ACT WorkKeys (which is tied to the National Career Readiness Certificate), and its own Occupational Skills Standards Assessment.

Other states with unique indicators include North Carolina, which reports students earning CTE postsecondary credit in high school, and Maryland, which reports work-based learning participation by category (for example, internships, mentorships, service learning, CTE work experience).

## Lifelong Learning Skills

As presented on the CCRS Center's *College and Career Readiness and Success Organizer*, lifelong learning refers to social and emotional skills, higher order thinking skills, employability skills, civic skills, technology skills, and financial literacy. There are a few common measures that states use as proxies for self-management and related lifelong learning skills: attendance or truancy, dropout, discipline, and risk behaviors. These are imperfect and incomplete proxy measures; more complete measures of student progress and success with lifelong learning skills are needed.

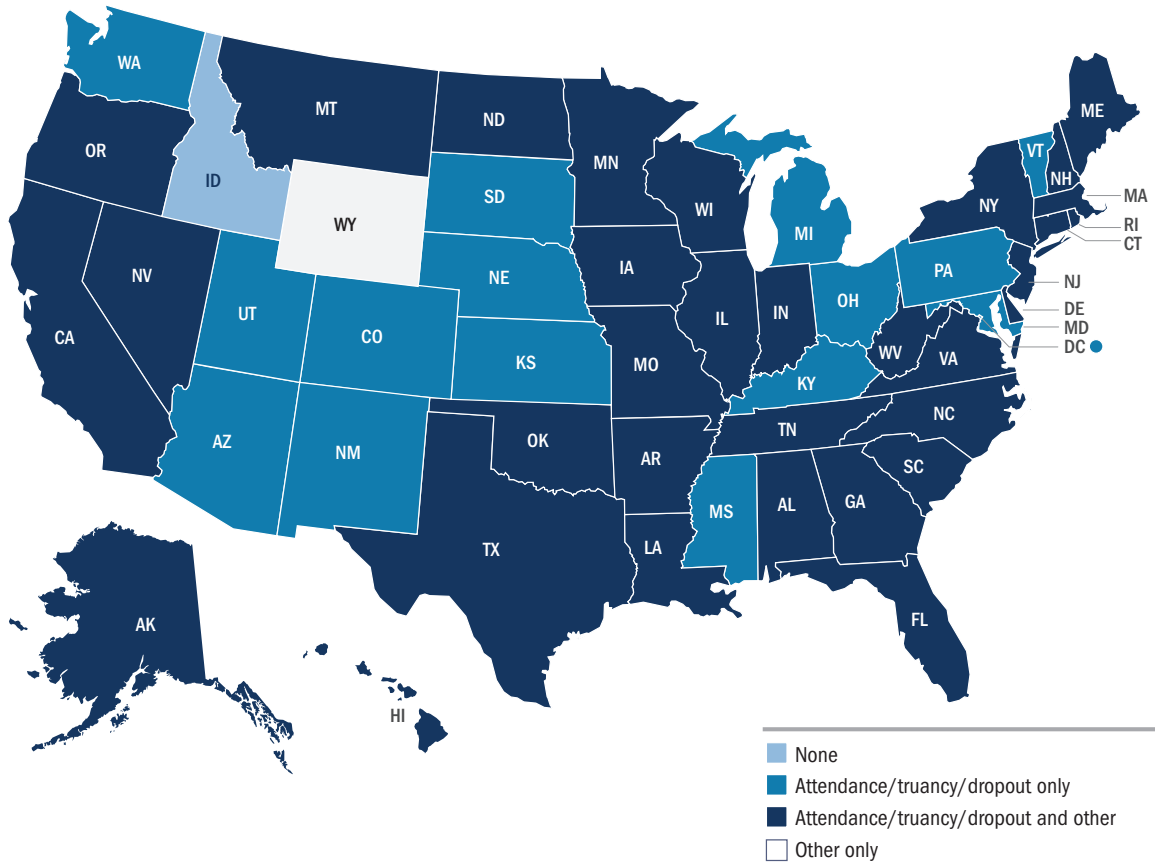
Attendance and truancy are predictive of school success and completion, so it is unsurprising that they are commonly reported state measures. As Figure 5 shows, 48 states and the District of Columbia publicly report student attendance, truancy, and/or dropout information, and 33 of those states report other measures as well, primarily discipline measures.

There is still a real need for reliable, valid measures of student skills in the area of lifelong learning, and many states are doing their best to identify and report proxy information.

- **Discipline and risk behaviors.** Discipline and risk behavior data are negative proxy measures for social-emotional skills. Twenty-five states report discipline information publicly. Seven states report state-level results of the Youth Risk Behaviors Survey, which reports on alcohol/drug use, safer sex practices, physical activity and dietary habits, and behaviors that contribute to violence. Three more states report results of state-specific surveys that cover similar information.
- **Civic involvement.** Hawaii reports student voter registration, and Oklahoma and Alaska indicate the average number of student volunteer hours by school.

- **Extracurricular activities.** Wisconsin tracks student participation in three types of co-curricular activities (academic, athletic, and music).
- **College knowledge.** Two states report student survey results that demonstrate “college knowledge.”

Figure 5. State Reporting on Common Student Lifelong Learning Skill Measures

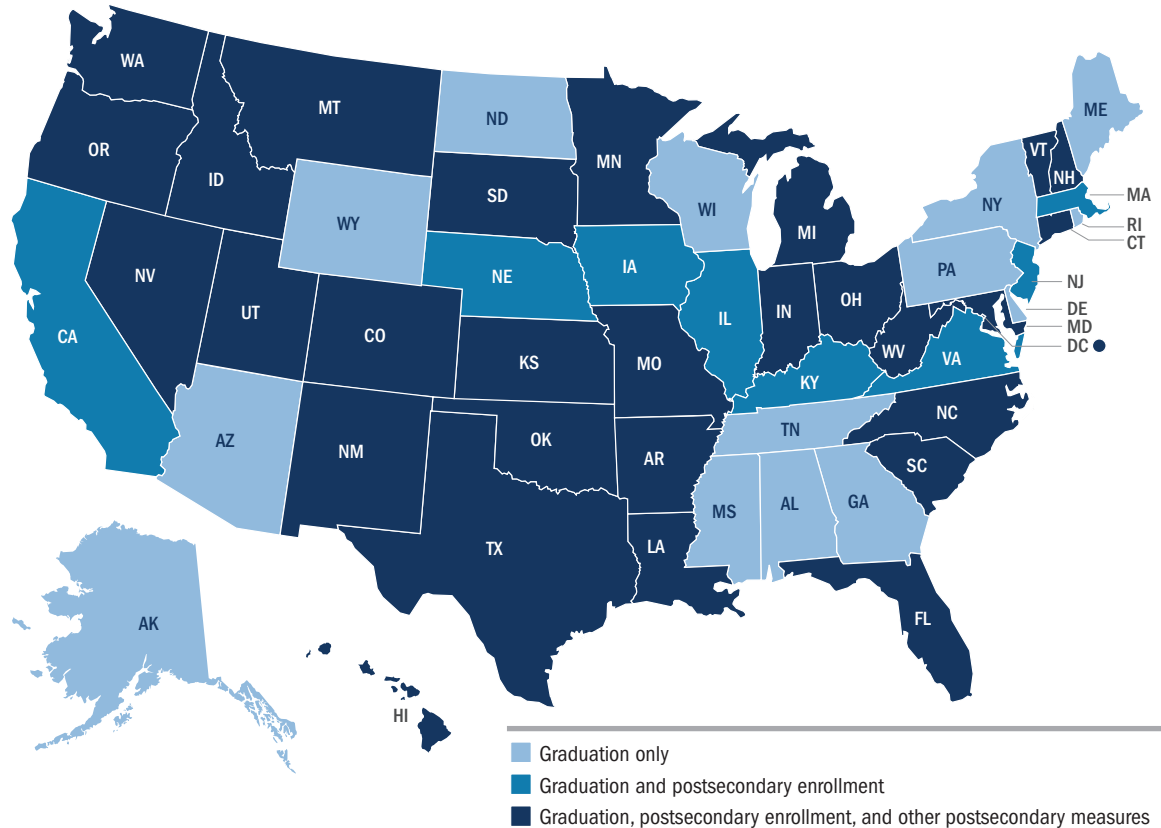


Note: Other measures include discipline and risk behaviors, civic involvement, and extracurricular activities.

## State Postsecondary Outcome Metrics

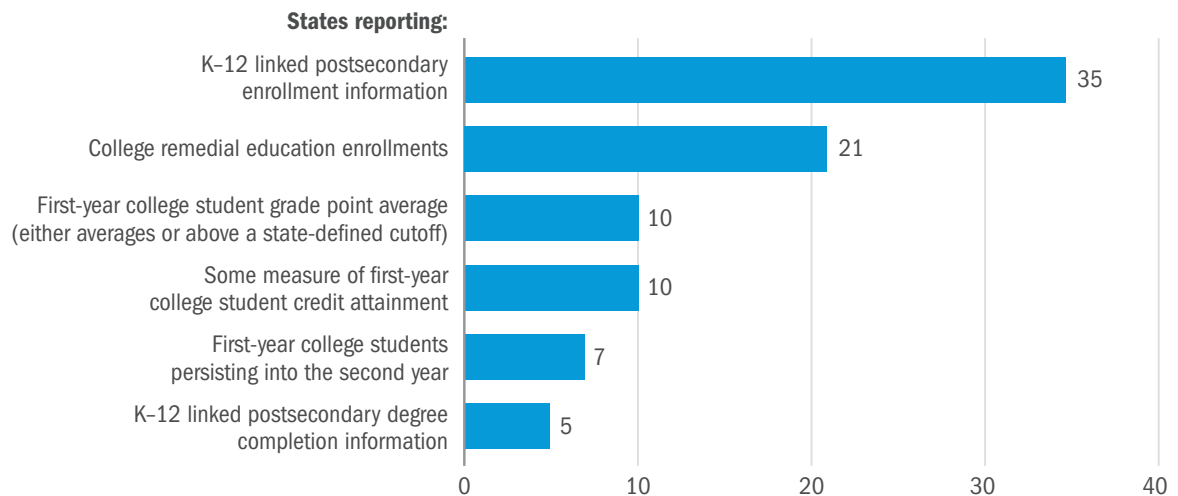
One of the best measures for determining college readiness is examining how students fare in college, but states do not all track or report on student postsecondary success. All 50 states and the District of Columbia report graduation and/or completion rates, but only 36 states provide any information about what their K–12 students do after graduation. As Figure 6 shows, 36 states and the District of Columbia report on postsecondary enrollment; of those, 28 states and the District of Columbia also report other measures.

Figure 6. State Reporting on Common Student Postsecondary Outcome Measures



Postsecondary enrollment, performance, and persistence data vary widely, because there are no federal reporting standards or requirements, and each state brokers the state's own agreements between the state and the university systems to determine what will be measured and reported and how. Many states use National Student Clearinghouse information to track postsecondary education performance; this is the most consistent and reliable source but is a fee-based service (National Student Clearinghouse, 2015). Figure 7 presents some common measures of postsecondary enrollment, performance, persistence, and completion after high school graduation. In addition, 15 states report student participation in dual enrollment—students taking college courses while the students are in high school.

Figure 7. Common Postsecondary Enrollment, Performance, Persistence, and Completion Measures





# What Should States Be Doing to Measure Students' College and Career Readiness?

Several clear recommendations emerged from the scan.

**Data should be easily accessible.** Elimination of data silos within state departments of education is slowly helping easily accessible data become a reality, but there are a few other easy ways to improve public access to most state data reporting:

- Make it easier to *find* the reports (e.g., make better use of metadata, use 301 link redirects to avoid “page not found” errors, and centralize links to data sources from a single webpage).
- Create searchable databases, which are much more transparent for the end user than static and disconnected PDF documents or spreadsheets.

**Data should be easily understandable.** Create and link to definitions for terms such as *college and career readiness, at risk, or on track*. When referring to specific state programs, provide a link to a page that explains the program. Data sources and limitations should be clearly stated (e.g., “college enrollment data include only in-state, public, four-year colleges”).

**States should increase public reporting of existing data.** Most states can make significant improvements simply by reporting the data they already have. Sixteen states and the District of Columbia report no pathway knowledge information to the public, despite reporting the data to the federal government as a requirement of the Perkins act.

**States should expand the breadth of data reporting.** States should expand the breadth of indicators they report, particularly indicators identified by research as being significant predictors of students' college and career readiness and success:

- Third-grade literacy
- Eighth-grade Algebra I completion (and 10th-grade Algebra II completion)
- Successful core course completion in middle school (Hein, Smerdon, & Samboldt, 2013)

**States should increase the depth of reporting on existing measures.** For those measures states choose to report, the goal should be to provide the most meaningful information possible about student progress and success. Measure “students enrolled in AP and IB courses,” for example, as well as “students scoring at or above benchmark” on the exams. Measure “students earning credit in dual enrollment courses” rather than just “students enrolled in dual enrollment courses.” Measure “students requiring remediation” rather than just “students taking remedial courses.” Providing data that are disaggregated at the school level rather than the district or state levels also allows for a better picture of student performance.

**States should pursue the identification and collection of better measures.** States should support districts in understanding multiple ways to assess lifelong learning skills and work with researchers to pilot assessments. The CCRS Center's 2015 report *Lifelong Learning Skills for College and Career Readiness: Considerations for Education Policy* contains several recommendations for states related to identifying, piloting, and verifying assessments of lifelong learning (McGarrah, 2015).

## Conclusion

As the Elementary and Secondary Education Act goes up for reauthorization, the role of public transparency in reporting is becoming increasingly important. Accountability systems are shifting from federal to state hands, and state governments will be answerable to their citizens for how those systems are constituted and implemented. Greater public transparency allows all individuals who are invested in a state's schools—and in its children—to see how schools and districts are progressing toward the goal of college and career readiness for all.

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National Association of State Boards of Education

## ⊕ Kansas Loops Stakeholders In on Conversation about K-12 Policy

By Anthony Nguyen

**D**espite widespread calls by states for a return to local control of education policy and praise for the steps made toward that end in the Every Student Succeeds Act, state boards of education still may find it difficult to engage stakeholders meaningfully to get input on local decisions. Kansas is one example of a state that developed an initiative to ensure that Kansas students, parents, educators, and business leaders have a say in the goals and plans for their state's preK-12 system.

ESSA also calls for strong stakeholder engagement. The US Department of

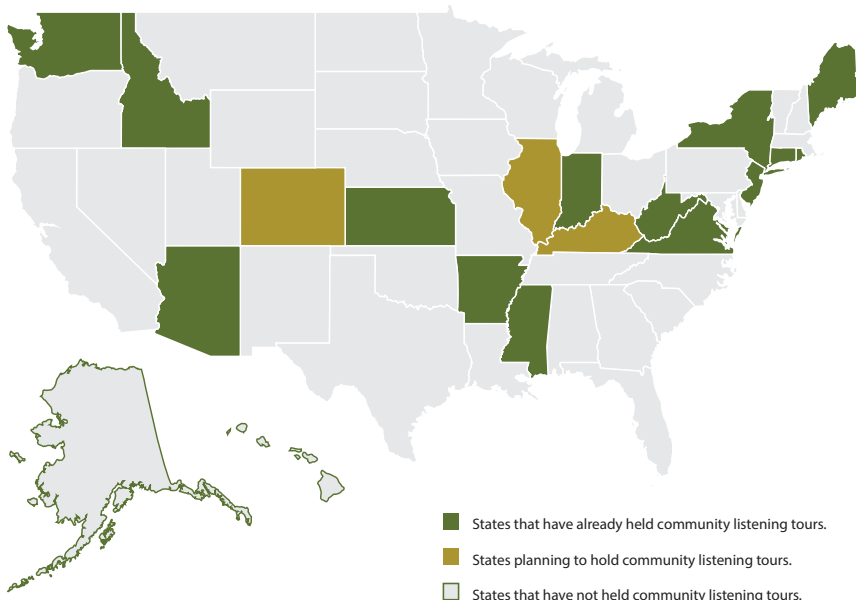
Education has encouraged states to engage communities and local stakeholders before ESSA requirements take effect with the 2017–18 school year. And many states were already doing so, conducting listening tours and regional forums, as Kansas has done (see map).

Through its Kansans Can initiative, state education leaders demonstrated that one way to build community consensus is through local forums and focus groups. By proactively approaching people who make up the education system and listening to their opinions on how to improve, state policymakers in Kansas and elsewhere seek to ensure that all perspectives are considered so they can make better education policy

decisions and build support for them.

Kansas education policymakers identified a key challenge in ensuring that their public schools were preparing students for college and careers, according to Kansas State Department of Education Commissioner Randy Watson. In order to get jobs when they graduate, 71 percent of Kansas's eighth graders in 2015 will need a postsecondary certificate or degree. Of those, roughly half need to be bachelor's degrees, and the other half certificate or associate degrees, Watson projects.<sup>1</sup> "That's so different from a generation ago," Watson said. "Even though we're one of the top ten or top five states in educating students, it's still not good enough for this state."

### 17 States Have Conducted or Are Planning Listening Tours



The Kansas State Department of Education (KSDE), encouraged by the Kansas State Board of Education, formulated a vision: All Kansas students can be successful if they are given the necessary skills to succeed. KSDE staff then sought input on what was necessary to give students the skills to achieve postsecondary success. Before the initiative began, said state board chairman Jim McNiece, "there were many voices telling the state board and the legislators what they could and could not do, but the voice of parents, business, and local stakeholders wasn't part of the process." To kick off Kansans Can, KSDE invited 2,000 local stakeholders to give their opinions.

"As the board was considering changes to its strategic plan for Kansas education, we charged Education Commissioner Randy Watson with finding out what Kansans want in their state education system," said

McNiece. The KSDE and KSBE planned a series of focus groups in more than 20 communities.

Deputy Commissioner of Education Brad Neuenswander and members of the state board began conducting the focus groups in January 2015. Two-thirds of the participants were current or former educators or administrators; the rest were students, parents, members of local chambers of commerce, and other business leaders.

## BUILDING CONSENSUS

A majority of respondents agreed on the need to change the Kansas K-12 education system to better equip students for college, careers, and civic life. The forum attendees wanted schools to teach their students skills beyond the traditional academic core. In particular, local business leaders said it was important for schools to focus more on collaboration with employers through sponsorships, internships, job shadowing, and increased community service opportunities.

Forum participants also expressed support for the following:

- strengthening language and social skills within early childhood education with all-day kindergarten and by establishing parental collaboration early on;
- giving guidance counselors and social workers in schools a more dynamic, active role;
- promoting nontraditional postsecondary options such as technical certification and education within K-12 schools and promoting more technical education and two-year colleges.

Although the forum attendees indicated general support for strengthening academic foundations and in-school support structures, there was also interest in how classrooms could build nonacademic skills to better equip students for postsecondary success. The community forum responses reflected this consensus.

## NONACADEMIC SKILLS

KSDE's Research and Evaluation Workgroup—which advises the department, state board, and legislature on education issues and which organized the community forums—formulated additional questions for participants:

- How do the views of educators, community members, and Kansas employers agree and differ on these skill goals?
- How can these sectors better collaborate to reach these goals?
- What are the best measures of progress toward these goals?

Researchers also asked forum participants to identify the characteristics, qualities, abilities, and skills of a successful 24-year-old Kansan and how schools should cultivate those ideal characteristics. The research team categorized the responses into traditional academic skills and social-emotional or personality skills.

Participants largely agreed that traditional skills and academics are no longer sufficient to adequately prepare Kansan students. Seventy percent of the time, the groups cited nonacademic skills such as professionalism, teamwork, and communications as essential to success, whereas academic skills were cited 23 percent of the time. Kansan business groups agreed, citing “soft” skills as essential 81 percent of the time.

The research team also identified points of intersection between the “big five” personality skills—conscientiousness, openness, agreeableness, extraversion, and emotional stability—and forum responses regarding the ideal characteristics of a Kansas graduate. These skills are distilled versions of the social-emotional skills already found on Kansas report cards. The research team determined that comments such as “works quietly without disturbing others” or “listens carefully and follows directions” can be classified under the “big five.”

Because teachers are already reporting progress on learning these personality skills to parents, the team sought to identify which skills are the most important to career, college, and civic readiness. Researchers found evidence for increasing wage returns for both low- and high-skilled work from nonacademic skills and that these skills are associated with higher academic achievement.<sup>2</sup>

McNiece added that the state board also thought it was important to include civic engagement as part of the definition of a successful high school graduate.

In an October 2015 speech at his department's annual conference, Commissioner Watson told the attending educators and state policymakers that the department would focus on key outcomes for achieving the overall vision: high school graduation rates, postsecondary completion and attendance, postsecondary remediation rates, kindergarten readiness, individual plans of study, and local measurement of social and emotional growth. This new focus reflects community input on how Kansas's education system should change, he said.

## NOT “ONE AND DONE”

With researchers from Kansas State University, the KSDE research team discerned common themes for K-12 education emerging from the forum discussions. “We've always assessed and reported nonacademic skills back to parents,” said team member Tony Moss. “What's [been] missing is a systematic identification of what skills are most important for academic, career, and life success.”<sup>3</sup>

Few representatives from the business community were included in the initial 20 forums, which comprised 287 focus groups with an average of six people each. This prompted Commissioner Watson to reach out to local chambers of commerce and convene focus groups of businesspeople. As a result, seven more focus groups were held.<sup>4</sup>

Upon synthesizing the feedback from the forums and drafting a mission statement, the research team revisited 10 of the communities in September and October and shared their results in order to further refine and tailor the strategic plan. “What we didn't want was a ‘one and done’ mentality; we wanted to methodically change the foundation of where we're going for the next generation,” said McNiece.

With stakeholder feedback from the Kansans Can initiative in hand, McNiece said, the Kansas State Board of Education hopes to set policy to fit the evolving needs of the modern job market and postsecondary institutions and to achieve better outcomes in Kansas high school graduation rates, postsecondary enrollment, remedial rates of postsecondary attendees, kindergarten readiness, individual plans of study, and students' social and emotional growth.



## OTHER STATE EXAMPLES

Other states have also conducted listening tours like Kansas's:

The **Illinois State Board of Education** held nine public hearings on ESSA and its implementation over 10 days with stakeholders across the state. Two key issues Illinois is addressing in the listening tour are the inclusion of student growth factors in its accountability system and improvement of state plans to provide coordinated programs and services to schools and districts.

The **Colorado** Department of Education has also finished a statewide listening tour meant to raise public awareness of ESSA and use community input and feedback to form its implementation plan. The department also seeks feedback on potential participation in a pilot program to develop instructionally connected state assessments.

The **Kentucky** Department of Education finished its own listening tour in which Commissioner of Education Stephen Pruitt asked Kentuckians how they defined school success. The input will inform design of Kentucky's new accountability system to make it easier to understand.

The Office of Superintendent of Public Instruction in **Washington** conducted a series of forums across the state to provide an ESSA overview for local communities. The forums were an opportunity for stakeholders to provide feedback and discuss how the new law would affect the state.

If Kansas provides any indication, listening tours and community forums in other states will give policymakers valuable information on what local stakeholders want out of their education system.

## CONCLUSION

Education policymakers in Kansas have used the community input to focus on five outcomes by which they can gauge the educational progress of their students:

- increased graduation rates;
- creation of individual plans of study based on career interests;

- local measurement of social and emotional factors relevant to student success;
- increased percentages of students pursuing postsecondary education or completing a credential program; and
- increased kindergarten readiness.

By connecting with the community, the Kansas state board has confidence that the five goals it has set reflect the skills the public has said are most important:

- provide a flexible and efficient delivery system to meet our students' varied and changing needs;
- provide an effective educator in every classroom;
- ensure effective, visionary leaders in every school;
- promote and encourage best practices for early childhood programs;
- develop active communication and partnerships with families, communities, business stakeholders, constituents, and policy partners.<sup>5</sup>

Achieving these goals will help the state board realize its vision of a successful Kansas high school graduate who has attained academic and cognitive preparation, technical skills, skills that make them employable, and civic engagement, McNiece said.

Over the past year, Kansas legislators were embroiled in contentious discussion of the budget for schools, and they considered legislation in March to repeal academic standards based on the Common Core State Standards. The bill, which would have required the state board to get legislative approval for any subsequent standards they would adopt, was defeated 44-78. In this political environment, Kansas education policymakers have nonetheless been able to craft a program in which residents weighed in on policymaking. Rather than become discouraged by partisan gridlock, state education leaders have shown the positive effect listening tours can have.

"What we wanted to do is engage in a thoughtful conversation to work toward a slow and gradual alternative voice in support

of each student," said McNiece. "If you don't see substantive change [in the results], it's not worth it."

*Anthony Nguyen was the publications and communications intern at NASBE and is an undergraduate student studying political science and history at The George Washington University.*

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