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features

6  A New Architecture for High School Learning
   Time to usher out learning based on seat time and usher in engaging, relevant, experiential, and competency-based learning. Russlynn Ali and Timothy F.C. Knowles

12  Telltale Signs of Rigor and Career Readiness in High School
   State boards can take a lesson from schools that are dishing up rigorous assignments in college- and career-ready courses alike and ensure that more schools know how. Gene Bottoms

18  How Rhode Island Increased the Value of a High School Diploma
   New graduation requirements are the gateway to addressing gaps in college and career readiness that were revealed in conversations with students and a dive into state data. Angélica Infante-Green

22  Merging High School and College: The Early College High School Model
   Six elements in statewide law and policy help more students thrive in college courses while they are still in high school. Julie A. Edmunds

28  Access to Data Is Key to Navigating High School and Beyond
   When it comes to assessing their postsecondary options and progress toward their goals while in high school, students say they are at sea. Jennifer Bell-Eliwanger
In myriad ways and with a range of policy tools at the ready, state boards of education have strived to ensure that students’ K-12 learning was preparing them for their adult lives. The high school years bridge childhood and adulthood, so state boards know that when that experience is misaligned with future demands, students and the country as a whole pay the price.

And yet redesigning high school is difficult work, both to initiate and sustain. The authors in this issue, many of whom have partnered with districts on reimagining high school, illuminate the intersecting pieces that must come together in state policy to make redesign possible.

The XQ Institute’s Russlynn Ali and the Carnegie Foundation’s Timothy F.C. Knowles team up to make the case for state leaders to focus on high school. Ali brings years of experience in leading high school redesigns that focus on creating relevant, meaningful learning that leverages out-of-school experiences and project-based learning, and Knowles brings a particular understanding of the systemic barriers to high school redesign, including the ubiquitous Carnegie unit, which shares the foundation’s name and has anchored so many students to a creaky, industrial model of schooling.

Gene Bottoms likewise spent a career trying to wean high schools away from persistent bifurcated college and career tracking so that all students have access to academic rigor that is integral to relevant, project-based career education. He lays out a range of policies that must proceed in parallel to make that possible.

Angélica Infante-Green, Rhode Island’s commissioner of elementary and secondary education, gives the reader a glimpse of what it means to reimagine high school at a statewide level and stresses the primacy of engaging with families, students, and communities to understand their obstacles and their aspirations.

For many students who struggle with the transition to college, early college high schools have been a boon, allowing many first-generation students and those from underrepresented groups to more readily make the transition to college through credit-bearing courses on campuses while they are still in high school. University of North Carolina—Greensboro’s Julie Edmunds finds that the programs have positive effects on students, both while they attend these schools and in their postsecondary careers. She also sketches the state policy environment that makes effective programs possible.

Survey work that the Data Quality Center did with the Kentucky Student Voice Team makes clear that many students are in the dark about their postsecondary options and want better information. DQC’s Jennifer Bell-Ellwanger sets out the tasks for state boards in ensuring that students and families have access to the data they need.

Three student state board members joined President and CEO Paolo DeMaria for a conversation about high school. Although their experiences differ, they agree on one deep desire, both for themselves and for all students in their state: They want relevance. They are seeking a high school education that speaks to their present and helps them build a holistic set of skills to prepare them to live fully into their futures.
Early in the opening session of the 118th Congress, House Education and Workforce Committee Chairwoman Virginia Foxx (R-NC) announced plans to focus the committee’s work on parents’ rights legislation, reauthorization of the Higher Education Act, and updating federal workforce programs. In March, she quickly secured House passage of a parents’ rights bill (H.R. 5), which would require schools to expand parents’ rights to review curriculum and budgets, inspect books and other library materials, and receive information about violent activity in schools. The Senate is not expected to consider this legislation, so it is unlikely to become law.

On the other side of the Capitol, Senate Health, Education, Labor, and Pensions Committee Chairman Sanders (I-VT) plans to focus his committee’s 2023 work on increasing educator pay, supporting healthy and safe instructional spaces, promoting higher education access and affordability, and expanding child-care access and affordability. He also announced a plan to work this spring with the committee’s ranking member, Senator Cassidy (R-LA), to update the Education Sciences Reform Act (ESRA), which authorizes the work and programs of the Institute for Educational Sciences at the U.S. Department of Education. In April, the two senators issued a joint request for information to secure public input that will inform the committee’s ESRA work. ESRA authorizes technical assistance for state education agencies and school districts through a system of regional labs and comprehensive centers. The law also authorizes the vitally important state longitudinal data systems program.

Congress also started the appropriations process for fiscal year 2024, and on March 9, President Biden sent his annual budget request to Congress. The president is seeking significant increases in the overall education budget, including large increases for Title I of the Elementary and Secondary Education Act and Part B of the Individuals with Disabilities Education Act. Both formula programs are NASBE budget priorities. During the spring and summer, we expect the Senate and House Appropriations Committees to hold public hearings about the budget and to begin writing the annual spending bill that funds the U.S. Department of Education. The spending process can be expected to be contentious and extend late into the year.

The department has also been busy. On March 24, it issued a Dear Colleague letter calling for the end of corporal punishment in schools. The agency also published a notice in the Federal Register on March 31 requesting information on successful approaches to innovative assessment implementation to help inform improvements to the Innovative Assessment Demonstration Authority (IADA). The request specifically asks (1) whether including a planning period would be helpful to the state in its development work, (2) what additional considerations or approaches to comparability for the innovative assessment the department ought to consider, and (3) whether states would be more likely to submit an application if the department provided one or two planning years. Comments were due on May 1.

Reg Leichty and Jamie Brandon of Foresight Law + Policy provided this update.

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**Figure 1. Current FAFSA Completion Rates by State**

![Graph showing FAFSA completion rates by state](image-url)

Source: Data Insight Partners, FAFSA Tracker–National. Reprinted with permission.
As I write this, Wyoming, like many states, is at the tail end of its 2023 legislative session. But as a lawyer in an independent attorney general office, my thoughts turn to what comes next.

The first is obvious: the regulatory changes that the newly enacted legislation requires. Agencies must plan rules for new programs and changes to existing ones based on legislative amendments. Wyoming’s laws are usually effective July 1 after the session, so rulemaking must begin far earlier. Even if no rules are required, new laws require interpretation and construction. After all, they are often drafted or amended—or both—in a hurry, and sometimes the full implications are not apparent until they are applied.

The second harbinger of spring I observe is the appointment of new state board members. Members of Wyoming’s State Board of Education are not elected, but rather appointed by the governor. Senate confirmation of the governor’s board and commission nominees is one of the last business items in the legislative session. So each spring, I help new board members adjust to their roles.

As state board readers are aware, members come from a variety of professional and service backgrounds. Some held public office in other contexts, such as being elected officials in their local communities. Many new board members whom I and my team represent, however, come from law, industry, or nongovernmental community leadership.

Long-time government workers may forget how difficult it can be for those new to government to navigate complexities we take for granted. A person who spent years building a successful private business may be frustrated with competitive bidding requirements or the inability to increase pay due to personnel rules set by a different state agency. To their credit, many new board members are concerned about inadvertently violating ethical rules with which they are unfamiliar.

A large part of the new board member training my office hosts each spring focuses not only on helping members understand the new rules to which they are subject but why they exist in the first place. Legislators and other policymakers set up systems to balance competing interests: efficient operations and protection of public funds. Some hoops to be jumped through, like competitive sealed bidding, are far less efficient than simply identifying a product that meets the agency’s business needs and buying it. But these processes prevent the possibility of mischief that could occur without these protections and are therefore necessary to protect public resources.

Likewise, open meetings and public records laws can be cumbersome, yet they provide essential public accountability. Put simply, these inconveniences are features, not bugs.

For either new or seasoned board members, these times of transition present an opportunity to reflect on how their work fits in with state government as a whole. While the restrictions may chafe at times, they also serve as a reminder that we are, above all, government actors wielding the power of the state and spending the people’s funds. When that is taken into account, these small restrictions seem much more reasonable.
Hands-On Learning in a Technology-Focused World

As a part of the high school class of 2023, I have experienced an education filled with technological advancements. In schools throughout my home state of New Jersey, teachers apply many innovative high-technology tools to aid learning. With more and more schools gaining internet connections, any type of learning is possible.

It is common practice, for example, for students in career and technical education classes to use virtual reality hardware to replicate firefighting and welding practices. Likewise, simulators recreate science and engineering labs that would be too expensive or too risky for a high school campus: Students can work with virtual particle accelerators and toxic chemicals without putting themselves at risk. Improved photo processing applications are integral to photography classrooms. Artificial-intelligence light controls in school theaters can read a stage and determine whether lights should be turned on or off. All in all, the classroom format and tools we use to learn have changed dramatically.

The rapid acceleration of new technology in classrooms can feel overwhelming at times. Students may feel pressured to incorporate new technology tools in their learning as well as to pursue career pathways that focus on developing and applying current technology. However, to amplify creativity and ingenuity in the absence of such tools, classroom time away from technology should be just as important. Students can still learn in a relevant, experiential way by writing diary entries outdoors during English class or holding mock trials in history class using books alone to support arguments with evidence. Instead of using artificial intelligence to build models of the solar system, students could make a model out of items around the science classroom. Such activities foster innovation and build students' capacities to assess their environment and develop purposeful work.

Students doubtless will be using technology to solve challenges after they graduate. But as applications and search engines become more powerful, artificial intelligence more advanced, and hardware's computational power increases, no one set of tools mastered in today's classroom will likely be the key to future success. If schools can teach students how to innovate with and without the use of technology, they will be equipped to succeed in every area of study and every environment.

State boards can encourage learning with and without technology by altering learning standards to promote responsible technology use, using phrases such as “…analyzing primary sources,” “using different tools,” and “…through hands-on learning.” And they can help ensure equitable access to opportunities for students to use technology. In New Jersey, the Higher Education Technology Infrastructure Fund will provide $55 million to institutions of higher learning to support such access. Such funding could be extended to K-12 schools.

I’m fortunate to have experienced deep learning with technology: computer emulators to learn cybersecurity, robotic human models to learn CPR, and virtual tours of historical sites. And without: going on “thought walks” to discuss literature, analyzing physical copies of historical artifacts, and writing poetry on a local beach. A balanced education can help every student achieve the greatest possible success.
State leaders should retire the Carnegie unit and open the door for high school designs that ensure learning is engaging, relevant, experiential, and competency based.

Russlynn Ali and Timothy F.C. Knowles

A New Architecture for High School Learning

Purdue University is home to renowned STEM programs that attract applicants from around the globe. Yet when state leaders and school officials looked at enrollment data in 2015, they noticed the stunningly low enrollment of students from Indianapolis Public Schools (IPS), just an hour from the university campus. Of roughly 1,100 IPS graduates in 2015, 26 qualified for admission to Purdue. Just 12 enrolled. As a result, hundreds of high-tech, high-paying jobs—essential to the state’s and nation’s long-term economic health—were going unfilled.

The problem was not the absence of IPS student potential. Rather, the students had not had access to the learning opportunities they needed to meet the bar. How did we get to the point where so many smart, curious, capable students are unprepared to participate in the workforce? The short answer is that the U.S. educational system operates on a model designed to prepare workers for an industrial economy that no longer exists.

The Ubiquitous Carnegie Unit

In 1906, the Carnegie unit, or credit hour, was introduced to standardize U.S. public education. It defined the precise number of minutes students needed to learn a particular subject and the number of credit hours required to earn a high school or college degree. At the dawn of the 20th century, the Carnegie unit served the important purpose of bringing order to an entirely unstandardized system.

Today, the Carnegie unit has infiltrated almost every aspect of American schooling. It defines precisely how many minutes one must sit at a desk in a classroom or in front of a digital platform to learn. It shapes how schools and teaching are organized. It determines what is and is not assessed. It defines graduation requirements and dictates how schools are accredited. And it prescribes what goes on a high school transcript and influences who receives financial aid for postsecondary education. In essence, the Carnegie unit is not just hard-wired into the system; it is the system.

For students, this model of schooling exacts a heavy toll. Young people consistently report feeling they are in an intellectual straightjacket: Their schools give them schedules, tell them what classes to take, stick them in rows of desks, and make them read textbooks that lack relevance and study subjects that are disconnected from the skills they need to succeed. For most students, school is neither engaging nor inspiring; it is something to endure.

From Alaska to Florida, the overwhelming majority of American high schools are organized in lock step around the Carnegie unit. Yet less than half of U.S. high school graduates are ready for college or a career. Consequently, most young people start their adult lives behind, and they will have to spend some, if not all, of their time trying to catch up.

The consequences are unambiguous. According to Harvard University Professor Raj Chetty, the United States has seen a precipitous, generational decline in economic mobility. Specifically, the percentage of children earning more than their parents dropped from over 90 percent for the 1940 birth cohort to around 50 percent for the 1980 birth cohort. Commenting on Chetty’s work, Richard Reeves and Eleanor Krause noted that the American Dream is more of a reality for those in Canada, Denmark, and the United Kingdom than for those in the United States.

Compounding these challenges is the unprecedented, painful disruption of
COVID-19. The most recent report from the National Assessment of Educational Progress, the first since 2019, revealed how much students fell behind: Reading scores dropped below pre-pandemic levels, and math scores plummeted to where they were three decades ago.9

Starting with High School

Members of state boards of education who wonder how this reality can be turned around for high school students have some examples to learn from. In 2015, Purdue University president Mitch Daniels challenged the community to solve the problem of the unacceptably low number of underrepresented minority students from Indiana who were qualified to gain admittance to Purdue. That challenge required an initiative to reimagine education in Indianapolis and elsewhere in the state and strengthen the pipeline to college and a career, particularly for students in the most underresourced communities. The result was Purdue Polytechnic High School, which opened its doors in 2017. Its intent was to engineer and serve students in radically better ways that do not conflate time and learning.

The curriculum at Purdue Polytech prioritizes projects rather than classes, hands-on learning instead of memorization, and real-world demonstrations of competency in addition to traditional modes of assessment. Student outcomes testify to the efficacy of this model (box 1). The school’s co-founder and head of school, Scott Bess, now also sits on the Indiana State Board of Education, where he advocates for moving tested, effective learning models from the margins to the mainstream.

Transforming a century-old, deeply ingrained system is a complex, difficult challenge. Among other things, it can be hard to settle on where to start. But we are convinced that high school is the fulcrum for change. When high schools improve learning, K-8 is pressed to raise standards to prepare students for more engaging, relevant, rigorous curricula. And when high school learning improves, postsecondary completion improves. Over time, we believe these benefits will compound, leading to better learning outcomes for students throughout K-16, stronger communities, increased economic productivity, and greater civic engagement.

For this reason, the Carnegie Foundation for the Advancement of Teaching and the XQ Institute, which we lead, have partnered to catalyze a better model. We want high schools to help students develop the rich tapestry of skills they need to succeed in school and life and to recognize that learning can happen anywhere. Put differently, we are intent on building a new educational architecture that shifts the sector to truly competency-based systems—and away from time-bound conceptions of what knowledge is and how it is acquired.

We are not alone in this work. A growing number of states and communities are establishing competency-based education models, offering flexibility for what counts as student learning and reimagining how credit for that learning is awarded. New Hampshire’s Learn Everywhere law, for example, empowers students to earn credit wherever learning occurs. Texas, Missouri, and several other states allow schools and systems to request waivers from seat-time mandates. Across Rhode Island and in Phoenix, Washington, DC, and Tulsa, school leaders are designing more rigorous, engaging, relevant models for high school learning.

A 2022 graduate of Grand Rapids Public Museum School (box 2) described his school’s approach: “[S]tudents are pushed to not only achieve mastery but to find something they love and can connect with on a personal level every time we study something,” he said.

Building Blocks in a New Architecture

What will it take to create thousands more high schools where learning is more like what occurs at Purdue Polytechnic and the Grand Rapids Public Museum School? We believe it requires a new set of building blocks that together form the foundation of a new architecture for education:

- learner outcomes that clearly articulate an expanded vision for student success;
- well-defined, specific competencies to guide teaching and learning;
- powerful learning experiences inside and outside of the classroom that align with those desired outcomes and competencies;
- richer models of assessment rooted in a competency-based framework, which
State leaders will rightly be impatient with high school redesign that is limited to building one school at a time from the ground up.

Engaging community stakeholders. In Memphis, parent Ginger Spickler saw an XQ billboard inviting communities to enter a high school redesign competition. She called a meeting with dozens of parents, educators, business owners, and civic leaders. Together, with hundreds of students, they created a blueprint for the school that their community needed. The result was Crosstown High, which opened in 2017 and takes a project-based learning approach in all classes. A 2023 graduate of Crosstown reflected on the effort to design her high school: “If I had to rethink high school in one sentence, I would say that it should be a space that raises problem solvers and solution makers and promotes constant growth,” she said.

More than 95 percent of its inaugural cohort graduated on time, compared with 80 percent in the surrounding school system. The Class of 2022 outperformed their peers across Tennessee and the nation in meeting college readiness benchmarks on the ACT in English, reading, math, and science.

As commendable as this effort is, state leaders will rightly be impatient with high school redesign that is limited to building one school
Young people need learning experiences that are multidimensional, project-based, high-interest, and relevant to their lives and aspirations.

Incentivizing schools to make the learning experience more engaging, rigorous, relevant, and experiential. Young people need learning experiences that are multidimensional, project-based, high-interest, and relevant to their lives and aspirations. Learning experiences need to be authentic, not made-up school tasks. They should build students’ academic content knowledge and essential skills and competencies such as critical thinking and collaboration. And they need to be rigorous, challenging every student to go further and discover more, both inside and outside the classroom and the traditional school day.

To catalyze such shifts in learning, states can create innovation grants for teachers, schools, and community organizations to plan together and deliver transformative learning experiences that build explicit competencies necessary for success in postsecondary school and the workforce. To provide guidance, XQ and Carnegie are creating a toolkit for educators and curriculum makers that articulates what these new learning experiences should look like. Our goal is to spur both the supply of new curriculum products and demand from students, teachers, and families for high school learning that is different and better.

The talent and capacity exist in every community—urban, rural, suburban—to do this groundbreaking work. States can help unleash it.

Changing the assessment and credentialing of student learning. Traditional math classes such as Algebra I and Geometry are often taught in a uniform way. Students who fail a course typically have to repeat it entirely, even if they at a time from the ground up. XQ worked with Rhode Island to take a more systemic approach: With input from communities across the state, Rhode Island redesigned its 64 schools at once (see related article, page 18). XQ is also working with Washington, DC, Public Schools to expand its high school transformation work system-wide. Similarly, Carnegie launched its Learning Leadership Network to engage school systems across the nation in high school transformation at scale. Every state can undertake such efforts.

Box 2. Centering Project-Based Learning

Colocated in a museum with 250,000 cultural and historical artifacts, Grand Rapids Public Museum School in Michigan leverages its location for rich project-based learning. Some days, students collaborate to research artifacts such as a spacesuit from an Apollo mission. Other days, students pursue independent passion projects aligned to rigorous academic standards.

Eighty-six percent of the 2022 graduating class finished in four years, compared with 79 percent for the district overall. The class had higher rates of proficiency on state assessments than students in the surrounding district and statewide in English language arts, social studies, and science. For example, 67 percent met the college-ready benchmark for reading and writing compared with 30 percent districtwide and 57 percent statewide. And there were higher proficiency rates for students from low-income families than similar students districtwide and statewide (52 percent met the college-ready benchmark for reading and writing compared with 30 percent districtwide and 39 percent statewide).

Michigan uses the national SAT exam as its statewide assessment for testing 11th graders in English and math and a home-grown assessment for testing social studies and science. More than two-thirds of museum school students met the SAT’s college-ready benchmark for evidence-based reading and writing in 2021 and also outperformed the district and state in state social studies and science assessments.

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struggled in only a few areas. This practice burdens teachers and discourages students.

In contrast, badging breaks courses down into smaller components aligned with each student’s learning journey and lets students attain badges as they master the components. Badging also gives students more agency over how their learning is organized and the path they take through a subject toward mastery. It makes math more manageable for students, builds their confidence, and leads to greater achievement in the long run.

XQ is building a math badging system with Student Achievement Partners and a network of math pedagogy, assessment, policy, and instruction experts. Idaho, Illinois, and Kentucky are piloting this effort, and each is doing it differently. In Kentucky, badges will align with a traditional Algebra I curriculum, allowing students to demonstrate mastery of concepts at an individualized pace. In Idaho, badging will provide an alternative to Algebra I, giving high school seniors the option to take badged courses associated with the math skills most important for their college or career choice.

Redesign also calls for better, more useful forms of educational assessment. In April, Carnegie announced a partnership with the Educational Testing Service to design, pilot, and introduce new tools that reliably measure the essential affective, behavioral, and cognitive skills necessary for success in school and the 21st century economy. In essence, the initiative aims to create a much better set of tools that can help students, parents, and educators accelerate learning and help state leaders track students’ progress toward attaining skills we know are necessary for success in school and a career.

Questions State Leaders Can Ask

State and local leaders often ask us how they might jump-start this work. We usually urge them to begin by asking three questions.

Has our state defined a vision for high school student success, or are we doing so now? This is critical. By establishing a public, shared vision and creating a space to engage key stakeholders, particularly students and families, education leaders can build an understanding that student success hinges on more than narrowly defined disciplinary knowledge. States such as Utah, Virginia, and Rhode Island have crafted “portraits of a graduate” and detailed the robust competencies that students in those states must demonstrate to graduate.7 XQ Learner Outcomes, and the competencies that undergird them, can also serve as a useful starting place for states undertaking this work, as they seek to describe the skills, knowledge, and dispositions every high school graduate should possess.

Are we making it easier for educators to design and implement transformative learning experiences, and have we removed policies that may create obstacles to high school redesign? As we hope we have made clear, required seat time is one common, overarching policy obstacle. Some states already offer flexibility around seat time by giving schools and districts the chance to apply for waivers. If your state already offers flexibility, it is important to make sure schools and systems are taking advantage of the flexibility that exists. States like Utah and Idaho offer financial incentives, innovation zones, and pilot programs with funding to help schools offset the transition and startup costs that high school learning redesign demands.

Are we engaging with higher education, employers, and other stakeholders to rethink how learning is credentialled? K-12 systems cannot transform their schools alone. It takes a community working and planning together and ultimately executing a vision together. In the most elegant high school models, classrooms and schools are porous. That is, there are consistent opportunities for students to learn independently in school or elsewhere, take postsecondary courses, and earn “credits” by working and learning in cultural institutions, community organizations, apprenticeships, and internships.

This vision for high school requires building robust, learner-centered ecosystems that leverage learning opportunities for students far beyond the four walls of the classroom. Building such ecosystems demands deep engagement with a broad range of stakeholders and the establishment of new civic compacts. Doing so will ensure that rich learning opportunities are reserved not for just a few students but are available for everyone.

Let's Get to Work

Transforming high schools is monumentally important work: essential to our economy,
Most states claim academic rigor and career readiness as goals for all their students. But as school systems continue tracking students into higher or lower levels of academic coursework and into career and technical courses that lack rigorous, real-world assignments, they reflect an apparent underlying belief that their students’ abilities are fixed—and fixed early in life.1

There are districts and schools that instead operate from an assumption that most students can learn at high levels when engaged in meaningful, challenging assignments in both academic and career pathway courses. What does that look like? I encourage members of state boards of education to visit high schools in their state and beyond, where they can see these effective strategies:

- students are required to meet graduation standards higher than those the state requires and require every student to take a solid academic core—no exception;
- students are able to make connections between college-ready academic standards and rigorous assignments in their career pathway courses;
- teachers receive the professional development needed to shift instruction toward rigor and relevance;
- ninth graders receive strong support and extended time to ensure that many more have the literacy and math knowledge and skills to succeed in college preparatory and challenging career pathway courses; and
- students set education goals and get help from counselors, teachers, and parents in choosing careers and an academic focus that are aligned with those goals.

State boards can take a lesson from schools that already dish up rigorous assignments in college- and career-ready courses alike and ensure more schools do it.

Gene Bottoms

Telltale Signs of Rigor and Career Readiness in High School

High Graduation Requirements

Setting high requirements for graduation is the most powerful practice for getting more high school students college and career ready.2 This high bar requires all students to complete college-ready English, mathematics, science, and social studies and three or more rigorous career pathway courses in a coherent sequence or three advanced academic courses in a focus area. Students should also meet standards in computer science, information technology, and digital fluency.3

In 2015, Georgia passed a law eliminating a state requirement that students pass, at a basic level or better, end-of-course exams in four core academic areas. Several districts had complained that the tests were depressing graduation rates. Camden County High School, however, opted to keep the requirement. They also required their graduates to complete 28 credits and complete at least three career-focused courses.

At the same time, the school reorganized around six career-themed academies. Academic and career pathway teachers collaboratively developed connected lessons in which students applied academic skills to assignments in career pathway classes.4 School and teacher leaders provided students with extra time and support. Using federal funds, the school engaged 15 certified teachers to engage students who were not on track to pass end-of-course exams at either college or career readiness benchmarks in effective relearning strategies.

The school’s graduation rate subsequently rose across almost all student populations. In 2022, the rate for Black students was 94.8 percent, 95.7 percent for Hispanic students, White students 93.4 percent, multiracial 95.8 percent, students
Interesting, rigorous, open-ended, project-based assignments engage students in productive struggle like nothing else, and such work motivates them to persist to completion. Having such assignments is the second most powerful predictor that schools will increase the percentage of their students who are college and career ready.^{5}

In CTE classrooms, such assignments should require students to apply high school-level literacy, math, and science in order to complete the assignment. They ought to engage students in doing background research that draws on technical documents and the knowledge of highly skilled workers in their field. Students should learn to use new software and technology, apply technical skills, and work both independently and in teams to address the project or problem.^{6}

Such projects allow students to explore and gain insights into their interests, aptitudes, and options for careers and further education. Such projects often require students to keep a journal that documents their work, reflects on acquired knowledge and skills, and identifies gaps to be addressed in their readiness. These are the most effective instructional strategies for advancing students’ readiness for both postsecondary studies and careers.

High school career and technology centers that help their CTE teachers prepare rigorous assignments see a significant increase in the percentages of students pursuing postsecondary studies, passing high-level industry certification exams, and of parents recognizing the value of intellectually demanding projects for careers and postsecondary studies. After a five-year project to enable all their CTE teachers to design assignments that met this high bar, more than 80 percent of seniors who had attended classes at the CTE center in Columbia, Missouri, agreed that their assignments were rigorous, and 90 percent had earned dual credit and were pursuing postsecondary studies.^{7}

### Instructional Shifts in Math and Literacy

Few teachers in the middle grades and high schools are prepared to create assignments that require students to use math knowledge and skills to solve complex, real-world, abstract, multistep problems. Many math teachers will need help making this shift away from teaching procedures alone. But such a shift can increase the percentage of students who leave high school meeting postsecondary and career math readiness standards.^{8} It requires that teachers receive 60 to 80 hours of professional development with on-site coaching.

Principal participation is also essential. Principals must stop pressing teachers to use procedure drill sheets, which fail to prepare students to use math to solve problems, and they need to understand why this shift is needed. They also must be ready to give teachers planning time to collaboratively design quality math assignments, and they need to use valid rubrics when they provide math teachers feedback after classroom observations.^{9}

A similar level of professional development and principal involvement is needed to advance literacy instruction. Schools that are using literacy-based assignments to engage students in reading complex texts in all disciplines—across all academic and career pathway courses—have more students graduating with college and career readiness literacy skills.

### Literacy and Math Readiness in Grade 9

Educators and policymakers alike recognize that the transition into ninth grade is critical for setting students on the path to success and that coursework focused on remediation has not proved effective in helping students who struggled in the middle grades.

Polytech High School in Dover, Delaware, uses a lottery system to select their students, who come from several middle schools. Many come to high school unprepared for a college-ready core. The school principal believes intensive extended time with special instructional support in the ninth grade is essential.

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Educators and policymakers alike recognize that the transition into ninth grade is critical for setting students on the path to success and that coursework focused on remediation has not proved effective in helping students who struggled in the middle grades.

Polytech High School in Dover, Delaware, uses a lottery system to select their students, who come from several middle schools. Many come to high school unprepared for a college-ready core. The school principal believes intensive extended time with special instructional support in the ninth grade is essential.

High school career and technology centers that help their CTE teachers prepare rigorous assignments see a significant increase in the percentages of students pursuing postsecondary studies, passing high-level industry certification exams, and of parents recognizing the value of intellectually demanding projects for careers and postsecondary studies. After a five-year project to enable all their CTE teachers to design assignments that met this high bar, more than 80 percent of seniors who had attended classes at the CTE center in Columbia, Missouri, agreed that their assignments were rigorous, and 90 percent had earned dual credit and were pursuing postsecondary studies.^{7}
students are ready for the next math class in the sequence.

All ninth graders take college-ready English, but those who lack skills in reading comprehension and oral and written communications take an additional foundational class that includes time management, organization, and study skills.

Polytech requires 28 credits to graduate: 16 college-prep classes and 10 CTE credits. And they graduate 97 percent of their diverse student body, with 76 percent enrolling in college—44 percent in a four-year college and 32 percent in a two-year college, with 82 percent returning the second year. Only 16 percent needed remedial college math, and 11 percent needed remedial English.

Involvement of Counselors, Teachers, Parents

Successful districts and schools provide all their students with counseling, career exploration, and advising. When coupled with effective parent and guardian engagement, more students set career and educational goals, earn higher grades, graduate, and earn a credible credential or degree, while demonstrating better social and study skills and fewer behavioral problems.

There are many effective approaches. At Fort Mill High School in South Carolina, students take an “introduction to high school” course in which they develop a program of studies linked to their career and postsecondary goals. The principal credits this course with a dramatic reduction in the ninth-grade failure rate, and he believes it has contributed to the school’s 95 percent graduation rate and its ranking as the state’s seventh best high school.

At Polytech in Dover, ninth graders rotate through all 20 career pathway programs for at least three days. In addition, the same assistant principal and counselor remains with a group of students throughout high school so that they have personal relationships with at least two adults who they know care about them and will help them persist through complex tasks.

At Camden County High School in Georgia, the school’s career counseling and advisement system connects each student to a teacher advisor, who meets with them weekly. Sessions focus on helping students make critical grade-level decisions in support of their career and educational goals. Whenever possible, each student has the same teacher-advisor throughout high school.

In Steubenville, Ohio, the high school in 2014 consulted with parents and convened industry and postsecondary leaders to bolster career pathways for its graduates. They picked advanced-career curricula in aerospace engineering, innovations in science and technology, health informatics, and global logistics and supply change management. A sequence of four courses in each are organized around project-based assignments connected to a college-ready core. The school in 2019 had a 99 percent graduation rate and a 95.4 percent daily attendance rate.

Actions State Boards Can Take

**Set bold goals.** The state board can set bold goals and work with willing districts and school leaders to achieve them. This work involves helping districts, schools, and teacher leaders discover—with their own eyes, ears, minds, and hearts—how changing school and classroom practices can prepare more students to graduate ready for college, careers, or both.

If I may also be bold, here are some goals I believe could truly accelerate career and college readiness:

- At least 95 percent of students who enter the ninth-grade graduate from high school on time.
- At least 95 percent of high school students complete a college-ready core aligned with an academic or career focus.
- At least 90 percent of students graduate college-ready, career-ready, or both, having mastered power standards in literacy and math.
- At least 80 percent of students earn a credential or degree of value by age 25 that can lead to a middle-class income.

Working with other agencies, the state board can establish indicators for determining whether students are meeting these goals.

**Encourage districts to set higher graduation requirements.** To achieve bold statewide goals, districts and schools ought to be able to set graduation requirements higher than the state requires. Schools using this approach have
Local schools acting in isolation are not likely to achieve bold statewide goals.

State boards can improve the quality of career pathways by paying attention to the credentials students can receive. Tennessee has long been recognized for approving industry credentials that matter to students and employers. The state scores three tiers of credentials: preferred, recognized, and valued. Preferred credentials are those that employers value and can lead to an advanced credential or degree and a middle-class income. Valued credentials are linked to specific high-demand jobs but not as likely to lead to an advanced credential or middle-class income. Recognized credentials may or may not lead to a middle-class income or postsecondary credit.

The Tennessee State Department of Education has approved 97 preferred, 51 valued, and 42 recognized credentials, and they receive applications for more each year. In review of these applications, agency staff receive support from the departments of agriculture, labor, department of economic and community development, the Tennessee Board of Regents, and the Tennessee Higher Education Commission. (see box 1);

Promote CTE as a different way of learning. State boards can work with CTE leaders to leverage federal vocational dollars so that comprehensive high schools, career academies, and/or career tech centers can redesign assignments in career pathway courses. Professional development support for CTE teachers is essential, as they revamp their instruction to include rigorous, real-world, project-based assignments that require academic and technical knowledge and skills.

State boards can also establish accountability systems for career and technical readiness. Such systems could track district and schools’ performance on how many of their students achieve the following:

- passing an industry certification exam or state license exam, vetted by employers and higher education agencies, that carries transferrable postsecondary credit in a field with economic value to state or local economies; provides students an advantage in the hiring process; and leads to good jobs. Tennessee has an excellent system for approving such credentials that merits other states’ attention (see box 1);
- completing CTE dual-credit courses that shorten students’ time to complete a credential or degree;
- passing valid end-of-course exams in career pathway courses at a level that carries college credit; and
- participating in structured work-based learning experiences that include completion of a complex, long-term capstone project.

Provide incentives for networks of schools. Local schools acting in isolation are not likely to achieve bold statewide goals. The state board and state education agency can provide a small amount of incentive funds annually and expert assistance to districts and high schools for developing and implementing comprehensive

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**Box 1. Earning Industry-Approved Certifications in Tennessee**

State boards can improve the quality of career pathways by paying attention to the credentials students can receive. Tennessee has long been recognized for approving industry credentials that matter to students and employers. The state scores three tiers of credentials: preferred, recognized, and valued. Preferred credentials are those that employers value and can lead to an advanced credential or degree and a middle-class income. Valued credentials are linked to specific high-demand jobs but not as likely to lead to an advanced credential or middle-class income. Recognized credentials may or may not lead to a middle-class income or postsecondary credit.

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improvement plans that draw in district and school board leaders, business and community members, and parents. Such an approach must include annual accountability indicators and measures that would weigh in decisions about continued funding.

In addition, engaging a cross-section of students in focus groups can provide school and district teams great insights into what is working and not working in a school and some of its best ideas for continuous school improvement.

States can help set up networks of willing schools to learn from each other. Using a cohort model, state boards and SEAs could convene cross-sectional teams led by state education agency staff to help get districts, school, and teacher leaders on the same page. SEA staff could report findings from curriculum and instructional reviews of participating schools to the state board, or members could participate in review teams themselves to get a good grounding in current school practices.

Assess assignments for rigor and relevance. The state board can contract with an outside qualified entity to study the rigor and meaningfulness of assignments in career-pathway, advanced academic, and low-level academic courses. Only rigorous assignments will lead to the good outcomes that state boards hoped to see when they set bold goals for student success. By studying the variety in rigor and relevance across districts, schools, and within schools, state boards can focus attention on what is and is not being expected of students.

It is not enough for a state board to adopt learning standards. Teachers must then translate a mix of those standards into challenging grade-level assignments that will motivate students to make the effort necessary to achieve at a higher level. Lower-level classes, in contrast, tend to assign work that focuses on a single standard. A network of schools can use the results from a study of assignments to inform their efforts, and the state can provide them professional development resources to increase assignment complexity and rigor.

Questions State Board Can Ask

Differences in school experiences account for a significant portion of the gap between disenfranchised students and those who meet college and career readiness standards. The state board is in an excellent position to question the assumptions on which many current practices are based:

- How do academic course sequences differ for students meeting academic readiness indicators for college and careers and those who do not?
- How do assignments differ in career pathway and academic courses for students who meet both college and career readiness standards and those who do not?
- What high school experiences best predict a student’s achievement by age 25 of an advanced credential or degree in a field that leads to middle-class earnings?
- Which career pathways prepare the highest percentage of students to earn an advanced postsecondary credential or degree, and which do not?
- Which high school students graduate having met computer science, information technology, and digital-fluency standards? How do their experiences differ from students who graduate without such skills?
- Which groups of students receive the most assistance early in high school in selecting course sequences and experiences aligned to their postsecondary goals? Are their families involved?
- For all of the above, how do the differences break down by ethnic, socioeconomic, and demographic groups?
- How many students who complete three or more courses in a career pathway also complete a college-preparatory academic core and in which pathways?
- Looking at success rates in the first year of college, how do students who completed a coherent sequence of at least three career pathway courses and a true academic core compare with students who completed only the traditional college preparatory program? How about students who completed neither?

All students learn more when completing rigorous assignments that require them to think, reflect, analyze, do background research, synthesize information, and produce a product demonstrating their learning. The status quo in too many schools reserves these learning tasks for the “best” students.
A high school diploma should mean that all students are ready for college and a career, but in Rhode Island, it did not. According to a 2019 audit, just four in a hundred Rhode Island seniors were prepared for both college and a career, and more than half graduated without concrete career skills. Thousands were ineligible to enroll even in the state’s own college system because they had not completed course requirements.

When I became commissioner of the Rhode Island Department of Education (RIDE) in 2019, I committed to ensuring that Rhode Island would start providing all its high school students with equitable

New graduation requirements aim to align with college admission standards and address inequities in college and career readiness.

Angélica Infante-Green

How Rhode Island Increased the Value of a High School Diploma
opportunities for postsecondary success. To start that transformation, the department had to take a long look in the mirror. In 2019, RIDE entered into a partnership with XQ Institute, a national organization dedicated to reimagining high school education.

XQ and RIDE engaged Rhode Island education stakeholders in a statewide high school redesign challenge to create high school experiences that would enable students to determine their own learning paths, careers, and adult lives. One component of the effort was an educational opportunity audit that went beneath the surface of Rhode Island data in order to figure out which kids were not graduating college and career ready. At the start of the audit, community members strongly affirmed that a high school education should prepare students for success in careers and college.

Based on quantitative and qualitative data from transcripts, surveys, and focus groups, the audit revealed inequities and ineffective practices that were preventing kids from graduating ready. Surveys showed eight of ten Rhode Island seniors strongly wanted to attend two-year or four-year colleges, but only half were eligible. More than one-third fell short of college eligibility by only one or two courses. Why were so many of our students falling short when they were so clearly demonstrating that they could succeed in most of their courses? These data pointed to a systemic failure, and statewide graduation requirements were to blame.

At the time, there were no statewide graduation requirements for specific math, lab science, or foreign language courses that aligned to state standards for admission to institutions of higher education. Students at one high school might be offered a sequence of courses that met college eligibility requirements, while students at another might never have that chance, even if they did everything right and excelled in their classes.

Inequities also existed within school buildings, where some students were provided the opportunity to participate in the learning experiences necessary for college readiness, and others were not. These inequities disproportionately affected students of color, low-income students, differently abled students, and multilingual learners, creating large opportunity gaps (figure 1).

Problems with high school course offerings went beyond minimum college eligibility requirements. The audit analysis of high school transcripts showed that many students did not take math or science in 12th grade. For those students who wished to major in STEM-related fields, one year of missed coursework may have prevented them from fulfilling their dreams. A student who completed Algebra I and II might find no further math courses available or be assigned a lower-level math course to fill up their schedule rather than proceeding to trigonometry or precalculus.

Many students were also failing to take two years of the same world language in high school and laboratory science classes. About a third were taking three linked career and technical (CTE) education courses. Further, students were taking courses in many disciplines out of sequence.

The first courses in a student’s high school education are critical, setting the stage for
Students told us they felt disengaged from their classes and disempowered by their choices.

We specifically sought out current and former Rhode Island high school students to learn from their experiences and perspectives on how well their high schools had prepared them for the rest of their lives. In partnership with XQ and For Freedoms, an art organization, Rhode Island students expressed their desire to change high school through an art and activism challenge in which they designed billboards that were displayed across the state.

The meetings unleashed a flood of emotions. Students told us they felt disengaged from their classes and disempowered by their choices. They wanted more real-world, relevant learning experiences. Other students felt trapped by their academic schedule, and they absolutely wanted to complete a college-ready course sequence. Some had family responsibilities—taking care of siblings or working to contribute financially to their households. At one meeting, an educator broke into sobs because they felt complicit in the failure to prepare students for the next chapter in their lives.

We also sought the leadership of parents, educators, school counselors, school and district leaders, industry partners, and community members. The data and the stories that they shared reflected the painful truth that our system was not only failing to prepare students for college, it was exacerbating racial and socioeconomic inequality. I will never forget the powerful silence that filled the room after we revealed data that Black male students who were not low-income were only about as likely to complete advanced classes in later years. Without this strong foundation in ninth grade, 9 in 10 students will never catch up to be college eligible upon graduation. Rhode Island data showed differently abled and low-income students falling off-track as early as ninth grade (figure 2).

RIDE pressed ahead during the pandemic. In June 2020, XQ and RIDE staff presented audit findings to the Rhode Island Council on Elementary and Secondary Education, or K-12 Council for short, which is organized under the state board of education and oversees K-12. The council challenged us to identify solutions and create a plan to address the barriers Rhode Island students faced.

Engaging the Community

Every school system I have encountered in my nearly 30 years of experience has valued community input and listening to families, students, and educators. Yet in many cases, those engagement efforts fail to lead to transformation. I wanted to do something different, so RIDE committed to sharing data, going wherever we needed to go to hear from stakeholders, and creating the space for our community to co-develop solutions.

Reimagining High School working group sessions were open to everyone. RIDE and XQ held ongoing meetings with stakeholder groups, attended any meeting to which we were invited, and spoke with anyone who would share ideas for reimagining high school.

We specifically sought out current and former Rhode Island high school students to learn from their experiences and perspectives on how well their high schools had prepared them for the rest of their lives. In partnership with XQ and For Freedoms, an art organization, Rhode Island students expressed their desire to change high school through an art and activism challenge in which they designed billboards that were displayed across the state.

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Each conversation underscored that high school graduation requirements were the entry point and a lever for full system change.

Preparing Graduates for College and Careers

The state’s goal is to increase the number of graduates who can earn an associate’s degree tuition-free while in high school and thus reduce the student loan burden. The new graduation requirement is that all Rhode Island students take four credits of math, including Algebra I, Geometry, and Algebra II, with the option for advanced coursework. Students’ three credits of science now must include two credits of lab science rather than the three unspecified credits previously required. Students also must take two years of a world language. These are the learning experiences that the University of Rhode Island, Rhode Island College, and most regional colleges require for general admission. The default expectation is that all students will graduate having participated in the learning experiences necessary for success in college.

Not every student will pursue a college education directly after high school, and most must work to support themselves before completing postsecondary education. Rhode Island students in full-time CTE programs will receive additional schedule flexibility to deepen their career exploration, all high schools will develop policies to recognize work-based learning as academic credit, and all students and all parents will now receive information on transitioning to a career, apprenticeship, and the military so they can make informed decisions about their future.

Although Rhode Island leads the nation in Free Application for Federal Student Aid (FAFSA) completion, its students need more support in accessing the financial aid they deserve. For decades, the onus was placed on the student to figure out how to apply for aid. These new requirements place the responsibility on high schools to help students and families navigate this process.

Relevant Learning Experiences

Students’ high school learning experiences have been disconnected from their passions. Yet students whose passions are engaged during school are two and a half times more likely to say they get excellent grades and do well in school. Rhode Island high schools will provide students participating in CTE and full-time dual enrollment programs with schedule flexibility to take coursework more aligned with their goals.

Rhode Island students will also graduate proficient in civics, financial literacy, computer science, and the arts. They will gain the knowledge and skills to navigate career and life choices. These initiatives will also help teachers unlock their creative genius and develop interdisciplinary learning experiences that involve partnerships with local community leaders. As long as students demonstrate competency and meet state standards, they will enjoy more flexibility in how their academic day is structured.

Student and Family Support

Families and parents are critical guides through their children’s high school experience and beyond, but the burden cannot fall entirely on them. High schools must help families understand their child’s high school experience, academic progress toward meeting graduation requirements and college and career benchmarks, and the support provided to them. Two out of three parents in Rhode Island high schools said they did not receive regular updates on their kids’ progress at school. RIDE has committed to ensuring that schools will now provide parents such updates annually.

Students who take care of family members or work to lift their families out of poverty should...
Merging High School and College: The Early College High School Model

For students who would like to go to college, the separation of secondary from postsecondary systems presents many financial, logistical, and cultural barriers. Early college high schools were designed to bridge the disparate systems and address the full range of obstacles students face in attaining college degrees. While setting these schools up requires a lot of collaborative work, it is worth the effort to expand these efforts and make early college high school available to more students.

Policymakers’ solutions to the problem of inequitable access to postsecondary institutions often focus on the financial barriers students face. However, other barriers are just as significant. Students may face barriers in the logistical aspects...
of applying to college. They may not have the
knowledge and skills they need to succeed in
college coursework, which sets up academic
barriers. They may not understand or be
prepared for the college culture.

Policymakers and educators have tried to
tackle these problems, but generally one at
a time, in piecemeal fashion. For example, to
reduce academic barriers, state boards of educa-
tion may establish graduation requirements to
increase alignment with the requirements of
postsecondary education. While such academic
policies are important, they do not address the
financial, cultural, or logistical barriers that
students might face.

Early college high schools take a different
approach. By merging high school and college
systems, this model sets out to address all the
barriers. In these early college schools, students
enroll as high school and college students at
the same time, with the opportunity to simul-
taneously earn a high school diploma and an
associate degree or two years of college credit.
Essentially, this model eliminates problems
stemming from the two systems’ separation.
In places without such options, it is largely up
to students to navigate the obstacles to transi-
tioning to institutions of higher education and
completing degrees once they get there.

Responding to 21st century economic and
social imperatives, most states have set goals
for increasing the percentage of their popula-
tion who receive postsecondary credentials.¹
For example, North Carolina aims to have two
million adults (66 percent of the workforce-aged
population) earn a postsecondary credential
by 2030, substantially above the current 50
percent level. Ohio is aiming for 65 percent of
their adults gaining some sort of postsecondary
credential, Minnesota set a 70 percent goal, and
Pennsylvania and Nevada both have goals of
60 percent. The targets represent increases of at
least 10 percentage points above current levels
of attainment. Realizing these challenging goals
will require the commitment and attention of
all parts of the educational system. Early college
high schools are an evidence-backed means to
help attain these goals.

What Do Early Colleges Look Like?

While almost all states have what they call
early college programs, they use the term
differently. In Maine, it simply refers to the
dual enrollment program. In most other states,
it refers to a very specific model that allows
students to earn a postsecondary degree while in
high school. My work builds on the early college
definition developed over years of work by or-
organizations such as Jobs for the Future, the
Middle College National Consortium, Educate Texas,
and North Carolina New Schools. An early
college high school is “a school that intention-
ally blends the high school and college experi-
ences. These schools rely on a strong partnership
between a school district and a postsecondary
institution (often, but not always, a community
college). Early college high schools are intended
to lead to a student simultaneously receiving
a high school diploma and either an associ-
ate degree or two years of transferrable college
credit.”² Many early college high schools are
located on college campuses, with their students
taking college courses with regular college
students. However, a growing number operate
as pathways or academies within comprehensive
high schools.

Although the nature of these schools may
suggest that they focus on gifted students, they
in fact focus on students who are underrepre-
sented in college—often those who are economi-
cally disadvantaged, first in their family to go to
college, or members of racial and ethnic groups
that have been historically underrepresented in
college (see box 1, pg 24). Studies have shown
that early colleges are representative of the
districts they serve or serve higher percentages
of minority and low-income students.³

Because a goal of the early college is to have
students earn a postsecondary credential or
amass a substantial amount of college credit,
dual enrollment is an important component.
Students can take college courses as early as
9th grade, and by the time they are in 11th or
12th grade, their course load is often composed
almost completely of college courses.

Yet early college high schools are much more
than dual enrollment on steroids. They reen-
vision all aspects of the high school experience,
Early college high school students earned more degrees than students who did not attend such schools, particularly associate’s degrees.

with the goal of having all students be successful in college courses. Thus, they work to ensure that students take the high school courses they need to be ready for college. They provide student-centered, rigorous instruction, and they explicitly and purposefully build college-readiness behaviors such as study skills, time management, self-advocacy, writing and communication, and teamwork. These increased expectations are accompanied by increased academic and social-emotional supports. Early colleges also provide a professional working environment to ensure that staff can collaborate and engage in job-embedded professional development.4

Do They Work?

I have been studying early college high schools for almost two decades. My research includes a 17-year randomized control trial study of the impact of the model, six evaluations of large-scale efforts to expand the model in comprehensive high schools, and a statewide study of the impact of early colleges.5 There are several rigorous studies besides mine, including three studies that use lottery-based experimental designs. These and other studies generally agree that early college high school has positive impacts. At the high school level, early colleges saw improved student attendance, course taking, performance in English language arts, and high school graduation rates and decreased suspensions.6

There were also positive impacts on students’ enrollment in postsecondary education. Most relevant to states’ educational attainment goals, early college high school students earned more degrees than students who did not attend such schools, particularly associate’s

Box 1. One Student’s Experience with Early College High School

Guadalupe grew up in a rural part of North Carolina with few educational opportunities. When she heard about early college high school, she knew this could be the way to get the college degree that neither of her parents had.

The early college high school was located on the campus of the local community college, where she began taking some college courses as early as ninth grade. By her last year, the majority of her courses were college classes taken with regular community college students. The early college was much more academically demanding than her middle school had been, but she received support from early college staff and learned how to manage her workload. The family-like environment in the early college provided necessary emotional support when her parents divorced.

The early college also helped her explore career opportunities through service projects and internships. In 11th grade, she shadowed doctors and nurses at the local hospital and cites it as one of the most important aspects of the early college for her: “I think about all the things that early college has done for me. I would never have the skills I have now if I went to a traditional high school. I would never understand to go and do service learning. I would’ve never had learned how to go and be involved in my community like that.”

After five years at the early college, Guadalupe graduated with an associate’s degree in science and went to one of the state’s flagship institutions, where her college experience was fully paid for by a state grant for first-generation college goers. She graduated with a double major in psychology and biology and a minor in chemistry. She is also a certified nursing assistant and plans to work as a nursing assistant before going to medical school.

When you consider the total cost to attaining a postsecondary credential, the early college route can be less expensive than the traditional route.

Early college students also completed their degrees faster. Students with associate’s degrees earned them approximately two years more quickly than control students, and the time to a bachelor’s degree was shortened by about six months. This reduced time meant that early college students graduated with less debt.

The early college model does cost more than a regular high school, primarily driven by the extra costs of the college courses. But when you consider the total cost to attaining a postsecondary credential, the early college route can be less expensive than the traditional route. Additionally, two studies have estimated very high returns on investment, roughly on the order of $15 to $17 in returns for every $1 spent on the early college model.

What State-Level Policies and Supports Need to Be in Place?

Early college high schools are complicated endeavors. They require work across the secondary and postsecondary sectors. While one sector can begin, both need to be highly involved to make the model successful.

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**Figure 1. Early College Students Earned More Postsecondary Credentials (by Six Years after 12th Grade)**

<table>
<thead>
<tr>
<th>% Attainment for any postsecondary credential</th>
<th>% Attainment of associate degree</th>
<th>% Attainment of bachelor’s degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>Control</td>
<td>Treatment</td>
</tr>
<tr>
<td>49%**</td>
<td>36%</td>
<td>37%**</td>
</tr>
</tbody>
</table>

My colleagues and I have identified legislation, policies, and supports that should be in place to support this work at the state level. State boards of education could undertake some of the six elements we identify, but most would require collaboration with higher education governing boards and state legislatures. There are states, such as Texas and North Carolina, that already have aspects of all six in place.

1. **Authorizing legislation.** Many states already have legislation in place that explicitly authorizes early colleges, and every state except one has legislation that authorizes dual enrollment. For example, Texas has very detailed legislation enacting their Early College Education Program that establishes the entity administering the program, defines the target population, and describes required program components. Early college high schools are easier to implement in states with this legislation, but they still exist in places without this legislation. Absent legislative authorization, state boards of education could create policies that operate within existing law to authorize or encourage early colleges.

2. **Financing.** The largest additional cost for early college high schools is associated with dual enrollment. For these schools to fulfill their mission of serving students who are under-represented in college, the students should not have to pay for the college courses. In some states, such as North Carolina and Ohio, the state covers the cost of college tuition for all dual enrollment courses. In others, such as Indiana, the state covers tuition for a subset of courses or a restricted number of courses. Other states cover costs only for low-income students, and some states do not cover the cost at all. In states where dual enrollment tuition is not covered, districts or even individual schools may choose to use some of their resources to pay the tuition for students. Financing is an area where state boards will have to work with their legislatures.

3. **Defining the early college in policy.** Early college is not just about dual enrollment. State boards can lay out specific expectations for the early college high school. The policies often define the target population of the schools. For example, North Carolina requires that early colleges serve students who are first generation, at risk of dropping out, or students who can benefit from accelerated instruction. These policies should also set up expectations for district-college partnerships such as requiring a formal memorandum of understanding between the two entities. The policies can establish any required structures. Michigan requires that early college high schools offer a fifth year, and North Carolina requires that they be small schools of less than 400 students. The policies can also set expectations for the number of credits a student can earn. Indiana specifies that students should be expected to earn an associate’s degree or 30 hours of general education coursework. States may include expectations relative to other aspects of the work, such as instruction, supports, and professional expectations.

In addition to clarifying expectations in policy, state boards may also want to consider developing an accreditation process. This process would assess the extent to which early colleges are implementing the expected practices and whether the schools can be recognized and receive any benefits that might be associated with early colleges.

4. **Dual enrollment policies.** While almost all states have legislation allowing students to take dual enrollment courses, effective implementation within the early college setting benefits from statewide policies on issues such as eligibility and information and advising. Eligibility addresses who can take dual enrollment courses. In all cases, these requirements should seek to establish a balance between identifying students who can be successful and avoiding setting up unnecessary barriers to student participation. To help ensure that students are aware of their dual enrollment options, some states have enacted policies requiring that information about dual enrollment courses be shared with all students. Having statewide eligibility requirements can reduce confusion among students. In all cases, these requirements should seek to establish a balance between identifying students who can be successful and avoiding setting up unnecessary barriers to student participation. To help ensure that students are aware of their dual enrollment options, some states have enacted policies requiring that information about dual enrollment courses be shared with all students. Similar policies could be enacted requiring districts to ensure that students are aware of existing early college options.

5. **Transfer of dual enrollment credits.** To fully reap early college benefits, students who want to earn a four-year degree need to be able to transfer their college credits from early college (which are often earned at a community college) to a four-year college or university. Many states...
have articulation agreements in place that guarantee transfer of specific courses from community colleges to four-year state institutions. These articulation agreements, which must be negotiated between the two-year and four-year systems, are intended to provide for a more seamless transfer experience. State boards may want to participate in these articulation agreement discussions so that, at a minimum, they understand the issues of transfer and can ensure that early college policies and expectations are aligned with transfer requirements.

6. Support to early colleges. Districts and schools often need outside help to implement early college high schools effectively. Some state education agencies provide support with their own staff. Others call on outside agencies to support them. Providing opportunities for schools to come together and learn from each other can help improve the quality of implementation. The state board may want to check in with the state education agency to see what supports are being provided, including professional networks.

Putting It All Together

As the need for workers with postsecondary credentials has grown, the barriers formed by states’ separate secondary and postsecondary systems have become an increasing concern for policymakers. Early colleges provide a proof point that merging the two systems can reduce these barriers in a comprehensive way. Not only is this approach feasible, as demonstrated by the growing number of states already doing this work, it is good for students and cost-effective. As state boards consider how to reach their educational attainment goals, they ought to consider expanding the early college opportunities in their states.

1A map with the goals for each state and the entities that have set them can be found on the Lumina Foundation website, https://www.luminafoundation.org/campaign/strategy-labs/.


4Much of the article draws from Edmunds et al., Early Colleges as a Model for Schooling.


6Jason Taylor et al., “Research Priorities for Advancing Equitable Dual Enrollment Policy and Practice” (Salt Lake City, UT: University of Utah, 2022).


8Edmunds et al., Early Colleges as a Model for Schooling, 143.

9The Education Commission of the States has a good overview of state policies on transfer and course articulation. See https://www.ecsc.org/50-state-comparison-transfer-articulation/.

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Students want information to help navigate their academic experience and chart their paths after high school. But according to a national poll of high school students that my organization, the Data Quality Campaign (DQC), and the Kentucky Student Voice Team developed in 2022, they are not getting the information they need. State policymakers can help remove this source of students’ uncertainty about their futures.

The many uncertainties that students in particular experienced over the last three years are reflected in the large numbers
of students who are chronically absent, missing from schools, or are otherwise disengaged. The decline in FAFSA applications also hints at how students’ outlook on the available paths after high school has changed.  

Better access to data will help students understand their college and career options, the steps they should be taking during the K-12 years to attain their goals, and their academic progress to date. This data access is essential for paving the way to recovery. State, district, and local education leaders must take actions to help students, their communities, and schools get the data they need.

Listening to Students

To field a national poll of public high school students’ perceptions of their postsecondary readiness and academic progress, DQC teamed up with the Kentucky Student Voice Team, a youth advocacy, research, and policy nonprofit organization. The students on the team identified important topics to investigate and potential questions, and they helped assess the results.

More than half of the students surveyed in the 2022 poll said the pandemic changed how they think about what they might do after school. Students also revealed that they are in the dark about their current learning and want more information to inform their postsecondary and workforce plans.

While 81 percent of students agreed that data about their learning and academic progress are important to staying on track after the pandemic, fewer than half reported getting information from their school about whether they are meeting grade-level expectations, are on track to graduate from high school, or about how much academic progress they had made during their current academic year. Worse, one in 10 students said they did not receive any information about their academic progress over the 2021–22 academic year.

High school students are particularly focused on what they need to do today to prepare for tomorrow. Just 35 percent of students reported that their school informed them of what postsecondary or career pathways are available to them, and the same low percentage of students reported that their school told them whether the courses they are taking are preparing them for higher education.

Understanding milestones and academic progress is especially important during transition points, whether it is a switch to remote instruction or from one school to another. Esha Bajwa, who helped develop our student poll as a member of the Kentucky Student Voice Team, reflected on her experience moving to a new state right before her senior year of high school:

I was brand new to Kentucky, and it was not always clearly communicated what the graduation requirements were because they’re different even from high school to high school. And I just remember, it was a couple weeks into my senior year, and they pulled me out of class to take a civics exam and I wasn't told really anything. I was like, what test am I taking? And when I got there, they said, “You need to take this to graduate.” And I was just sitting there panicking because I was not told.

Another member of the Kentucky Student Voice Team involved with the poll, Raima Dutt, reflected on the dearth of helpful information:

In terms of my own personal data on progress I’ve made, I’ve found that I barely have any. I mean, I have my report cards and my progress checks, which just have my grades every six or eight weeks. But that’s up to me and my family to interpret. No one’s really saying these are good grades, or hey, maybe you need to get this grade up so you can pass…. So I’ve never really received that data, and the only data that I feel like I’ve received that’s individualized is state testing. We get that data, but I feel like that’s not a very accurate representation because it’s one test, and it’s also the end of the year.

Like their surveyed peers, Dutt and Bajwa also expressed a need for more information on their options after high school. While 73 percent of surveyed students felt that they were on track for success (e.g., ready for postsecondary education or a career), just 61 percent of students felt confident they knew all their options. A vast majority reported they would feel more confident about their future if they had better access to information.

Dutt confirmed that postsecondary options were uppermost on her mind as she reflected on the information she would love teachers or guidance counselors to provide:

Because we kind of have to figure out our career path on our own. And I wish there...
To make access to usable data a reality, statewide longitudinal data systems must be reoriented. Parents: 93 percent said that easier access to information would help them feel more confident about their ability to support their child’s post-high school decision making.9

To make access to usable data a reality, statewide longitudinal data systems must be reoriented to address three questions: Who needs access to data, when, and how? While states have been building cross-agency, longitudinal data systems for decades and have made notable progress, today’s state data systems are largely designed and used for system-level compliance and monitoring.10 The very design of these systems and the policies that govern them are not oriented toward getting individuals, the public, and policymakers timely answers to pressing questions that will inform decision making.

Reorienting statewide data systems toward access means that everyone—not just students—will have robust access to the information they need to answer their most pressing education and workforce questions and make decisions that support students. If states orient their data systems in this way, people will be able to accomplish the following:

- Individuals will be able to make informed decisions about their courses in high school, the postsecondary and workforce preparation they need, and the debt they may incur when they take on different pathways.
- The broader community will benefit from increased access, improved outcomes, and leaders focused on the best way to improve education and workforce pathways.
- Leaders will be able to make informed policy decisions and be held accountable for improving schools and postsecondary options.

While no state has a data system that enables different types of access that are specific to users’ needs, California completed a multiyear effort to design its Cradle-to-Career Data System, which will securely bring together data from across the early childhood, K-12, postsecondary, and workforce sectors to empower policymakers, advocates, and communities with actionable data to support students’ success. In many ways, California is still at the beginning of its efforts to build an effective, useful data system, but the state’s design process can provide an invaluable roadmap for leaders in other states.11

Access for Other Stakeholders

The poll made clear that students want more information on their academic progress and postsecondary options. And 84 percent of the students we surveyed believed it is their state’s responsibility to share clear information with them and their families about whether or not schools are effectively teaching and supporting all students.6

But students are not the only people who want better information. DQC’s 2021 and 2022 national polling of superintendents, principals, and parents—all conducted by The Harris Poll—shows that everyone wants information to help them make or support education and workforce decisions.

- Superintendents: 98 percent report they would be more confident in their abilities to make decisions for their district with better data access, and 61 percent use data to make decisions about course offerings and curriculum aligned to postsecondary and workforce opportunities.7
- Principals: 94 percent said they would feel more confident in their leadership decisions with better access to their students’ postsecondary and workforce outcomes.8

Likewise, Esha reported that she wanted more “information about student loans and how long it takes to pay them off. . . . I feel like nobody talks about that because it depends what degree you get and things like that. There’s really no conversation about how this is a long-term investment and there are cons to it in terms of money, and there’s an assumption that everyone’s going to college without fully informing the students, like hey, this is what the investment is.”

was data or just information like, hey, I think you should check this out. I also wish I had more individualized data. Because on grades it’s like, say I have a 4.0 GPA or I have a 3.8. It’s hard to create a picture of what that really means. . . . I know there are just so many different colleges, but there are also other postsecondary options. I really hope that our school could provide local scholarship opportunities because even as a junior I’ve been looking at some of those, just to get a general idea, because the whole college planning process is so long and tedious.
Tasks for State Boards of Education

Leaders must attend to the ways they share and seek information. Listening to and speaking with their communities is the best way to understand what information constituents need and how it can be made most useful to them. By sharing information about context, proximity, and framing of data, state and school leaders can build trust and ensure that communities will be able to understand and use the data.12

Context. Context helps students and others make sense of the numbers and how to act upon them. State officials ought to share as much contextual information as possible and make sure it is clearly presented and translated into the most commonly spoken languages in the state.

Proximity. People inherently trust and value data they collect themselves. Consumers’ trust in data diminishes as they move farther away from its source. Continuously providing avenues for stakeholder engagement and showing evidence of listening go a long way to building trust in data.

Framing. People want data framed in a way that maximizes their ability to be successful (e.g., focusing on their assets) and does not magnify the challenges (e.g., focusing on any deficits). State leaders should build an understanding of how communities perceive data about their students and be sensitive to how members of a community will receive information about them. They can open a dialogue to understand how data should be framed in the future.

State boards are the people’s voice in education. To best represent the people and ensure that their priorities are being addressed, people must be involved in decision making. But the student voice is often overlooked. Ensuring that leaders are focusing on incorporating the voices of students and other community members, it is important for state leaders to ask the following:

■ How are you creating space to listen to student voices? Are you inviting them to speak at state board meetings or creating other avenues to hear students speak?

■ What are students telling you about their experiences? How are you addressing their comments?

■ What are you doing to address their concerns? And how are you sharing that information with students and other community members?

Students need not feel disconnected from the information that will help them succeed in high school and beyond. Listening to what data students want and need will help state boards ensure that everyone—especially students—has what they need to be successful in and out of school.


5Ibid.

6DQC and KSVT, “Students Want Access and Support”


Tell me about the high school where you are enrolled—what you like best about it and what you are engaged in.

Joshua Leinwand: I am a senior at Yarmouth High School in Yarmouth, Maine. It's a pretty small high school: a graduating class of about 140, total enrollment of around 600. It’s pretty normal genre-wise: No IB classes, no career tech. What really gets me excited are the student engagement opportunities. There are a lot of clubs. There are also a lot of teachers that create student engagement in classrooms. I have teachers that use me as a teaching assistant to help out with some students in lower-level classes. There's a lot of engagement in school policy activities. I’m class president. I’m the clerk of our student senate, which is a body that approves clubs and is a go-between for the student body with the administration. They also have students on teacher interview committees. I also am on cross-country, indoor and outdoor track, clean sweep. I wouldn’t be a proper state board member without some politics-inspired activities, so I’m an avid debate team member and a Model U.N. captain.

Téa Washington: I go to BASIS DC, a grade 5-12, STEM-based school and part of a larger network of schools called BASIS ED. Our curriculum is rigorous: We have to take at least six AP classes to graduate. We finish graduation requirements by 11th grade so our 12th grade year is built solely of capstones and internship opportunities. We have, on average, 600 students and a graduating class size of maybe 50. My school is one of the first to have an AP African American Studies elective, which is absolutely wonderful. I have the opportunity to go to Egypt at the end of the school year. I’ve participated in Art in the City; we go to a different art museum every week. Also, I’m [in] Youth and Government through the YMCA, we visit city council chambers, propose draft legislation, and have mock trials and debates.

Valli Pendyala: I go to South Windsor High School in South Windsor, Connecticut. Our graduating class is around 330 people this year. The one thing that gets me excited about going to school is, honestly, the people at my school. It has its problems, but I know that when I walk through the doors, every single teacher cares so deeply about every student. Most of them put so much dedication and love into their students that it makes us want to succeed and thrive. I’m president of the mock trial team and vice president of the debate team. I’m also undersecretary general of the Model U.N. team. I’m on the student council, and I’m president of the Genders & Sexualities Alliance. I’m a Girl Scout [and] have been since first grade, and I’m on the Girl Scouts of Connecticut’s board of directors. I have a brown belt in karate and teach karate at my dojo.
What do you wish could be different about your high school experience?

**Pendyala:** A lot of the time, I don’t feel like I’m learning anything applicable to the real world. Much of the curriculum is 10, 15, 20 years out of date. I take AP classes and dual enrollment classes, but even those feel focused on memorizing facts or practicing skills that aren’t relevant. In English classes, there’s not a lot of emphasis on modern media literacy. We do learn valuable skills, but a lot of it needs to be adapted to modern life and especially technology.

**Washington:** I agree a hundred percent with Valli. There’s little relevancy. We’re not learning anything we can apply to our postsecondary life. Our school has such a strong emphasis on standardized testing and memorizing facts for the test to make the school look better, caring less about us.

We’ve had bad teacher retention. We’ve gone through three math teachers this year alone for my math course. We are terribly behind, especially in European history class. Our school puts such a focus on AP classes, [but] it’s hard to adhere to that standard colleges are expecting when we don’t have those teachers. It feels like we have to teach ourselves.

**Leinwand:** As somebody who is also a month behind in European history, I feel your pain. Téa made an amazing point about postsecondary life. So many of the curricula are focused on college. That is assuming college is the end result, but they should be focused on life.

**Valli** [mentioned to me] that math classes in Connecticut shifted to less of a calculus-based to more of a statistics-focused model. That can help with relevancy. As much as calculus is a useful subject, people don’t use it in their average lives 20, 30 years in the future. We need a backward-engineered approach. What are the skills that you need to have in life? What is the requisite knowledge? Then build the courses based on that.

Do senior-year capstones and internships add relevancy and connectedness?

**Washington:** They do add relevancy, but capstones are not universal. Every senior takes a whole bunch of different capstones. And since the curriculum is very much up to the teacher, the information gained from taking the course is very subjective. I don’t think other high schools in DC place such an emphasis on capstones.

Describe your school culture. What challenges do you see?

**Washington:** [There is] not enough enforcement around sexual assault and bullying. I’ve seen more bullying workshops in my school and across the district, but not much has changed in the enforcement of those rules, even if new rules are brought into our school code of conduct. Not much has changed. That is my biggest frustration. If an older student bullies someone in the hallway and a fifth grader saw that behavior, [it] is going to repeat. Students have spoken up, to the point where we were provided with those workshops, but it’s up to the teachers and administrators to truly enforce rules we have in place and break those cycles.

**Leinwand:** A low discipline [rate] is a misleading statistic. Sometimes, in a place with the worst school culture issues, you’ll find low disciplinary action. A lot of times, that’s the more dangerous student culture, where it’s subtle enough that it’s not picked up on by the administration [or] teachers. That’s not necessarily what it’s like at my school, but I have friends who tell me about it at their schools. In a lot of student culture scenarios, kids view themselves as against the administration. We’re not living in Footloose anymore. People aren’t saying you can’t dance. You just need to know what you’re able to do.

**Pendyala:** My district is majority White, reasonably affluent, but there’s [been] a bigger influx of Asian American students recently. There’s not a lot of outward tension, but there [have] been instances of racially based harassment. We have capstone projects for seniors as well. A couple of years ago, one of the projects was an Instagram page called “Black at South Windsor High School,” where Black students could anonymously recount discrimination they faced from administration, teachers, and other students. The number of entries on that page showed how insidious and deeply rooted
The world has advanced so much, but the school system hasn’t.

racism can be and how deeply rooted it is in my community.

Coming out of COVID, a lot of students—especially incoming freshmen and sophomores—spent their formative years learning from home. I’ve seen that affect a lot of them—the way they act and speak to others. Among the middle school students who spent their elementary years at home, there’s not this understanding that other people are people. They’ve never learned how to cooperate and treat each other with respect.

What else do you find challenging at your school or in your school systems?

Leinwand: Individualized student focus. Our current school system favors the “status quo” student or the “average” student. The school system wants to view every student as the same. That’s harmful to fostering individuality and individual progress. You see students who are at the upper end of the range needing a bit more challenge and stimulation and aren’t able to receive it because teachers focus more on the average. Similarly, in rural school districts, especially those with large percentages of students with intellectual disabilities, many students are not able to receive the supports and classroom settings they need.

Pendyala: There’s a difference in resources and quality of education depending on which district you go to. In Greenwich, Stanford, all those suburbs of New York City, a lot of money is being pushed into the schools but then funneled into private and charter schools. Even in a district like South Windsor, which is pretty evenly funded, there’s a lot of opportunities for those highest-achieving students—they take all the APs and dual-enrollment classes—but students that go to honors or college prep classes don’t get the support, recognition, or even the motivation to succeed. About 85 to 90 percent of our graduates go to college. Our district is focused on pushing kids toward that track, so it doesn’t provide opportunities for those that might be better suited for the trades, the workforce, or an apprenticeship.

Washington: We have a whole “show, take, make” model at BASIS that we’re encouraged to encompass at all times—in the classroom or outside of school. We have these award ceremonies after each grading period where only certain students get awards. Those are challenging. I remember being at BASIS in fifth grade and how not getting even the simplest award leaves you with a feeling of emptiness because you see friends getting these recognitions and you just have to sit there.

Do you have strategies for dealing with stress, and what mental health challenges do you see?

Pendyala: With all the pressure to go on to higher education, the costs of higher education, declining admissions rates, plus the emphasis on test scores and the lack of relevance for a lot of students, it’s a breeding ground for anxiety and depression, burnout, and a general lack of fulfillment and connection with life. I’ve seen that among my friends. I’ve seen that from high schoolers across the country on social media. It’s a mixture of feeling like there’s so much pressure to “succeed” and follow that right path with this disillusionment: “What are you doing this for?” and “What’s the point?” In conjunction with all we see going on around the world, this generation often feels like, “What is the point of getting that 4.0, going to college or getting that job, when every other week we have some sort of world-ending, traumatic event?”

At the same time, there’s this lack of support from the adults around us. Mental health is starting to be recognized a little bit, but we are still not getting the supports we need. Even things like changing school start times from early morning to a couple hours later is not something that seems feasible for a lot of schools because of that emphasis on student success. Student success comes at the expense of mental health so often, and we should work on addressing those issues.

Washington: Building off that, we don’t have any counselors. I know that’s a nationwide issue, not having a resource to go to in school or at all, because if you’re not getting it in school, you’re probably not going to get it at home.

Leinwand: The world has advanced so much,
but the school system hasn't. The system isn't keeping up. A bottom-up restructuring is the only true, viable solution that we can trust to have a net-positive impact. The system is so broken, so out of place, so powerful in causing anxiety and depression and burnout that we need to look not at what can treat it but at what won't cause it. So many school services are focused on mitigation that they avoid understanding what is causing these things in the first place. We need to look not symptomatically, but rather, what is the disease? [We need to look] at an education that doesn't stress the student, that doesn't have scripts forced on students from the day they enter school.

What could your board do in terms of state policy to address these challenges?

**Washington:** Building off what Joshua was saying, D.C. is completely rebuilding social studies standards for all DC public schools. Ideally, the process will end in the next few months, but it may take years. There was loads of public testimony, hearing from students, parents, and educators. Our Office of the State Superintendent of Education will be reviewing that before they release a final draft. With public testimony being so against the Eurocentric views of the 2006 standards, I definitely think that OSSE will take that into consideration.

**Pendyala:** The Connecticut board has worked recently on curriculum. This is the first year that the Black and Latino Studies curriculum we instituted has been required to be offered at every school. We worked a lot with teachers and heard testimony from students and teachers of the new curriculum in our November meeting. It was heartening to see that even if it was just one course, there was more relevancy and more diversity available to students. We've also recently worked to reform the way we teach math, moving toward a more data analysis, statistics approach. Generally speaking, our board does need to move toward making curricula more relevant. [That requires] work with the legislature—a more difficult, long-term process, but we're starting to see more of those changes.

**Leinwand:** The Maine board is working with the Maine Department of Education to promote project-oriented, interdisciplinary learning—a fantastic way to provide that relevancy and have a tangible connection between subjects. The other Maine student board member, Ryan Hafener, and myself chair the Maine Commission of Education Student Cabinet. We're [working on] a report on mental health resources available to Maine students.

**Do you think your voice as a student board member has been heard and is making a difference?**

**Washington:** I believe so. Facilitating conversations within the Student Advisory Committee, hearing their thoughts and being able to present that to my board, I think my voice and the voice of my fellow representatives and students on the committee are definitely heard [in our work on the social studies standards].

**Leinwand:** Yes. It's a tough answer. Because, as a student, you don't have the same voice as a normal board member. It's an unfortunate reality. But simply because of age, if we had the same powers, we still would be looked at a little differently. The Maine board's fantastic about giving us voice, but as nonvoting members, [it] is a smaller voice.

**Pendyala:** I sit on my board's legislative and policy development committees, so we've worked with local districts and [on] legislative proposals. My student action plan through [NASBE's] Student Engagement Collaborative was about an inclusive sex education curriculum through the lens of the LGBTQ+ community. I try to speak up when I feel my thoughts are relevant, but the problem is twofold. First, I'm a nonvoting student member, so I don't have a vote, which lessens my impact a bit. Second, the Connecticut board works more as an approval mechanism—at least, I feel in my experience—for the actions of the department, so the experts pitch the policy, then we run it through, open it up for public approval, then vote on it. But it's not something where we author resolutions—or at least the rank-and-file members don't—and then work to make those impacts firsthand.
How can students make a difference at the school level?

**Leinwand:** The big thing is to have their voices be heard, to collaborate with other students, and really push for change. Students need to actively create the educational environment they want, deserve, and need. It’s about finding sympathetic voices in positions of power—the teachers or the administration or their board members or members of their legislature—who they can collaborate with to push for further change.

**Pendyala:** We also need to be mindful of which students are given voice. I still have a problem with how Connecticut board members choose [student] board members. We have to be 4.0 students, write essays, submit an application, and all that. It leaves out a lot of people who might need their voices heard the most. We have to take a step back, talk to students who are from schools where there’s a lot of low-income students, students of color, schools where there aren’t a lot of funding and opportunities, where they’ve been ignored. We need to uplift those voices.

I try my best to stay aware of different viewpoints in the community. I don’t have the opportunity to directly engage [with other students] as much, because Connecticut doesn’t have an advisory council. But when issues come before us—more recently, we’ve had an issue related to students and mental health and conflicts—we do try to listen to those students and not immediately distance them because the administration “knows better.” We’ve also done some work on ensuring that homeless students have access to school resources and meals.

**Washington:** I agree. [It’s about] pushing for those open dialogues and pushing as hard as you can to have those tough conversations. In D.C., for the student reps, [we try to] facilitate hard conversations and say, “OK, maybe talk to this representative who’s from Ward 7 because you’re also from Ward 7.” Or, “You can go to this person, who is the special advisor for healthy school facilities.” No matter what, it’s about trying to bridge [to] that connection.

How well prepared are you for the world after high school? If you could change one thing, what would that be?

**Washington:** I feel moderately prepared. I think I only feel prepared because of my participation in extracurriculars and other opportunities that allowed me to travel and see other perspectives, engage with other people, and learn how to really maneuver through the world. Like Valli was saying, with such a diverse school population and being able to have open dialogues and gain those perspectives, I feel adequately confident about going out into the “real world.” But the lack of relevancy [in my schooling] still affects [my preparedness]. Having a humanities-based elective where you examine the intersection between race and society, or gender and society historically, could really [help students] get to the root causes of discrimination.

**Pendyala:** Academically, I feel prepared. My school has offered college enrollment classes. I feel prepared for the amount of coursework. Academic rigor is not something that worries me. The personal aspect of life is what I feel like we don’t get prepared for nearly enough. For the average student, there’s no foundation from school on how to live independently. They might not be able to learn how to do laundry at home, how to cook at home. That’s something schools have gotten rid of, like home economics, when these are actually vital skills. Even things like personal finance, taxes, budgeting, how to find an apartment, how to get a student loan. Should I get a student loan? Why do I need a credit card? These are basic skills you need as soon as you turn 18.

[If I could change anything,] I would honestly rehaul the entire curriculum. There’s issues of relevancy in terms of diversity, in terms of content, in terms of access. All those things need to be changed.

**Leinwand:** Similar to what Valli said, there are two sides of the coin. Am I ready for what school has prepared me for? Yes. Do I feel prepared to live my life, not just mentally but spiritually, emotionally, all around? School prepares you academically. In more wealthy districts, it’s preparing you for college. It’s
con't from page 7...A New Architecture for High School Learning

our democracy, and our social fabric. We have seen pockets of progress. But it is time for the entire nation to embark on this work. It will require bold plans, new policies, courage, and commitment.

State boards hold a unique position that afford them an opportunity to lead the way. As the citizen’s voice, state board members are on the frontlines, both in and above the political fray, working with communities and convening stakeholders to craft policies that deliver for young people. If every state addresses the three questions above, the entire nation will be stronger for it. The Carnegie Foundation and XQ stand ready to partner on this journey.

1Gallup, “2016 Gallup® Student Poll: A Snapshot of Results


cont’d from page 17...Telltales Signs of Rigor and Career Readiness in High School

It is time to help schools engage all students in assignments that connect to their interests and give them ownership in their own learning. No one strategy will be sufficient. The combination of strategies outlined in this article—when implemented effectively—will engage students in rigorous, relevant assignments with teachers who let them take greater responsibility for their learning, who see their potential, and let them know they care about their progress.


5Gene Bottoms, Tomorrow’s High School: Creating Student Pathways for Both College and Career (Alexandria, VA: ASCD, 2021), figure 4.2.


*The Southern Regional Education Board’s program director for literacy and mathematics, Jason Adair, has helped school leaders develop such rubrics. SREB also has a cadre of professional development staff to help schools implement effective literacy and math strategies.*


*Gene Bottoms, Alice Presson, and Lingling Han, “Rigor, Relevance, and Relationships Improve Achievement in Rural High Schools: High School Reform Works When Schools Do the Right Things” (Southern Regional Education Board, 2004).*

*Bottoms, *Tomorrow’s High School*, chapter 2.

*In *Tomorrow’s High School* (ASCD, 2021), I detail ways schools and districts can develop year-by-year plans for implementing transformative, practical actions in support of bold goals.*

*Bottoms, Presson, and Han, “High School Reform Works—When Implemented” (2004) and “Students Can’t Wait: High Schools Must Turn Knowledge into Action” (2006).*

*National Research Council and Institute of Medicine, *Engaging Schools*, 80–81.

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*cont’d from page 21...How Rhode Island Increased the Value of a High School Diploma*

not have to choose between academics, family responsibilities, and economic security. To ease the burden on these students, Rhode Island schools will add flexibility in their support, which might include valuing caregiving work as community service hours, flexible class schedules, skill-building and support groups, and work-based learning for academic credit. Additionally, these changes eliminate seat time as a criterion for awarding academic credit. Rhode Island students will earn credit based on subject mastery and student proficiency. The Carnegie unit is no longer the driver of student learning in Rhode Island high schools.

RIDE developed these priorities by genuinely listening to community members and embracing difficult conversations. After the initial proposal to revise graduation requirements was presented to the K-12 Council last year, there was a period of public comment that included seven hearings and four town halls across the state. Students and families were present at each of the seven public hearings. With over 400 comments, this set of regulations received the most public comment in the history of Rhode Island K-12 education.

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**Conclusion**

Today, there is much to celebrate and feel hopeful about in Rhode Island. On November 15, 2022, the K-12 Council unanimously approved the final proposed graduation requirements. It is no easy feat to implement a statewide partnership, yet a focus on community voices and patience enabled Rhode Island to change the framework for high schools completely and reorient the entire educational system to ensure that every student graduates with open doors to create their own future.

To get to this point, Rhode Island parents and community leaders joined state education leaders to dig beneath the surface of the toughest questions in a collaborative process. That makes me optimistic about the future. If there is any piece of advice for other states that seek to make high schools better for their students, I would say that it is important to lead with vulnerability. RIDE’s goal was to get the requirements right for kids, even if it meant admitting that we did not always have easy answers to difficult problems. We were open to change and were guided by the voices of the community. I also credit the K-12 Council itself for giving the department the mandate to implement changes, as well as their pushing forward on solutions mutually agreed upon.

RIDE opted to phase in the new requirements over the next five years. We could have implemented these changes more quickly, but sustainable, transformational change will take the same sort of inclusive community leadership that got us this far. Over the next two years, RIDE will ensure that all students are automatically enrolled in courses required at Rhode Island’s state colleges. The implementation of these requirements will inform the next phase of the work and may hold lessons for other school systems and communities hoping to transform their high schools to build the future our students so rightfully deserve.


*RIDE, “Educational Opportunity Audit” (October 2017).*

*Chenoa S. Woods et al., “How High School Coursework Predicts Introductory College-Level Course Success,” *Community College Review* 46, no. 2 (February 2018).*


*RIDE, “Educational Opportunity Audit” (April 2020).*
If you are a new member of a state board of education, you have by now settled into your seat at the table. Likely, you are getting acquainted with the rules of public engagement. As an elected board member coming off the campaign trail, you may already feel confident about engaging with the media and constituents. As an appointed member, maybe not so much. Regardless, a few tips can set you up for success.

**Get to Know Your Role.** New board members come bearing goals and perspectives. Diversity of perspective is critical for policymaking and can lead to better outcomes. In a recent NASBE interview, Maryland State Board Chair Clarence Crawford said his board can “disagree on policy matters without becoming disagreeable.” Despite differences in opinion and expertise, members organize around a common goal: improving educational opportunities and outcomes for all of Maryland’s children. In other words, this board has discovered power and authority in its collective voice.

Although you may not agree with a board vote, you stand by that decision once made. Publicizing differences of opinion after the fact discredits the board and undermines its authority. Your goal is to find agreement on clear, cohesive messages to help the public make sense of policy decisions. Members should collectively form a game plan. At last year’s New Member Institute, Indiana State Board Member Byron Ernest shared three questions that guide his public speaking:
- Does the issue need to be shared publicly?
- Does it need to be shared now?
- Am I the right messenger?

**Lean on Staff.** On a panel at this year’s Legislative Conference, North Carolina Deputy State Superintendent of Education Michael Maher said, “A good communications director is worth their weight in gold.” Many state boards are fortunate to have a communications team they share with the state agency. Some lucky boards have their own. Most often, boards have an executive director that serves as chief of operations: helping set meeting agendas, ensuring members are prepared for meetings, and carrying out initiatives. Whomever you have, get to know them and let them help you.

Communications folks can help your board develop media relationships that will lead to better reporting and a keener understanding of the board’s policy decisions and initiatives. They can also help develop individual members as spokesmen and implement strategies to help the board achieve its public engagement goals and build communities’ trust.

**Leverage NASBE.** Every summer, NASBE hosts a New Member Institute to help new state board members understand their role and what it takes to be a successful, productive member of a state board. This year, we are hosting the event virtually over three sessions: June 28, July 26, and August 30. These sessions cover several topics: understanding state board authority and how to lead for lasting change, parliamentary procedure, using evidence and data in policymaking, collaboration and engagement strategies, emerging education issues, and more! Past attendees frequently remark on how valuable these sessions have been to their board work, as well as the chance to connect with board members from across the country. Don’t fail to take advantage of this unique professional development opportunity!
Like many, I have fond memories of my high school days. At Eastside High School in Greenville, South Carolina—class of 19...cough...cough—I cultivated life-long friendships, played the lead in the school’s musical “The Boyfriend,” took great classes with amazing teachers, cheered on the mighty Eagles, and so much more. I volunteered at the Greenville Little Theatre and played organ for the church choir. My 60+ self, however, realizes how oblivious I was to the experience of other students. I lived in a world that was a good fit for me.

My next personal experience with high school was as a parent. When the dean of students at a charter school in Columbus, Ohio, told me my child would spend two days a week in internships, beginning as a sophomore, I hesitated. “When does the learning happen?” I asked. I learned soon enough. My children worked in a guitar repair shop and volunteered at Mount Rainier National Park as part of their Graham School experience, and they learned so much.

Also notable was the absence of courses like “Freshman English” or “World History.” The faculty designed courses based on student interests, with catchy names and engaging descriptions (like those in a college course catalog), yet they were still covering the state-mandated learning standards. In the “winterim” term, students took things like photography, computer programming, and skiing. My children had amazing high school experiences in a converted office building in a commercial strip north of the city.

As Ohio’s superintendent of public instruction, I enjoyed visiting high schools. I loved listening to high school students whose learning inspired them and made them joyful. In the encounters that moved me most, a student would say, “I found where I belong,” or “This school saved my life!”

After visiting schools such as Columbus Arts and College Preparatory Academy, Dayton Early College High School, Lincoln-West School of Science and Health in Cleveland, and Firestone High School in Akron, as well as many amazing career and technical education centers, I landed on a list of attributes of great high schools. They are relevant, challenging, student directed, project based, community and career connected, and places of caring and belonging.

In this edition of the State Education Standard, you will find ideas and reflections that I hope will inspire you to envision ways in which you can ensure that many more students enjoy outstanding high school experiences. Fortunately, there are wonderful student-centric high schools in every state. My advice is find them, visit, and probe into what they are doing well.

You might say, “Sure, but what can a member of a state board of education do?” You can make this transformational work a priority! And you can commit to catalyzing and advancing a policy and action agenda that will create the conditions for many more communities and schools to create the best possible experiences for high school students. We at NASBE are ready to help you! A great high school experience can make a tremendous difference for so many students.
Spark imagination

The potential to learn is limitless when students and educators are connected.

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