Accelerating Students from High School to College and Careers

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About ExcelinEd

Launched by former Florida Governor Jeb Bush in 2008, ExcelinEd supports state leaders in transforming education to unlock opportunity and lifelong success for each and every child. From policy development to implementation, ExcelinEd brings deep expertise and experience to customize education solutions for each state’s unique needs. Focused on educational quality, innovation and opportunity, ExcelinEd’s agenda is increasing student learning, advancing equity and readying graduates for college and career in states across the nation.

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Foreword

Our parents went to a local school, worked hard and earned a high school diploma that opened doors to a career that paid for a house, put their kids through college and provided a retirement pension. Things have changed drastically. For us, the high school diploma was a stepping stone to college, typically interpreted as a four-year degree, which helped us achieve the same career and material goals. Now fast forward to our kids.

Employers in today’s global economy value a range of postsecondary credentials—industry-valued credentials, postsecondary certificates, associate degrees, bachelor’s degrees and advanced degrees—because they can each signify whether an applicant has the skills employers need. While debates in the past have dwelled on college vs. career, today’s students will need a postsecondary credential in addition to in-demand workplace skills to even begin, much less advance in, mid- or high-wage level careers.

Yet there’s a catch. Postsecondary education is expensive. According to the National Center for Education Statistics, the cost to attend a four-year university doubled, even after inflation, between 1989 and 2016. To put that into perspective, the price of college increased almost eight times faster than wages.

While politicians and policymakers debate ways to make postsecondary learning more affordable and address crushing student debt, there’s something states can do right now to help students prepare for success: jump-start postsecondary learning with college acceleration opportunities while students are still in high school.

College acceleration opportunities like Advanced Placement (AP), Cambridge Advanced International Certificate of Education (AICE), College-Level Examination Program (CLEP), dual enrollment, early college high schools and International Baccalaureate (IB) can help high school students prepare for college-level work while they earn valuable college credit or work toward a postsecondary credential. Best of all, participating students are more likely to graduate high school, go on to college and complete college degrees on time.

States are already investing significant resources and efforts into their college acceleration opportunities. Unfortunately, sometimes these opportunities can fall short on delivering quality and value to students or aren’t reaching all students, such as low-income, minority or rural students.

Yet, it is possible for states to accelerate all high school students toward the degree or credential of their choice. In fact, some states are already making great progress toward this end.

I encourage you to read this playbook, learn how these college acceleration opportunities can benefit students and see what your state can do to prepare students for lifelong success.

Please do not hesitate to contact us with questions or assistance in developing or improving opportunities in your state.

Patricia Levesque
Chief Executive Officer
Foundation for Excellence in Education
"Skills over degrees" is a common refrain in discussions about the future of work. It is an acknowledgement that increasingly more occupations require advanced skills but may stop short of asking for a four-year degree.

Unfortunately, many policymakers cite the latter as grounds to question the overall value of postsecondary education. Yet, postsecondary education and credentials still matter. Consider a few critical findings:

**UNEMPLOYMENT RATE 2011**

<table>
<thead>
<tr>
<th>College graduates</th>
<th>High school graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.3%</td>
<td>9.4%</td>
</tr>
</tbody>
</table>

In the Great Recession, the unemployment rate was more than double for high school graduates (9.4%) compared to college graduates (4.3%) in 2011. The value premium for postsecondary training and credentials extended into the recovery from the Great Recession—11.5 million of the 11.6 million jobs created in the recovery went to workers with at least some college education.

**OCCUPATIONS REQUIRING POSTSECONDARY EDUCATION**

18 out of 30

Of the U.S. Bureau of Labor Statistics' list of the 30 fastest-growing occupations, 18 require postsecondary education.

**JOB GROWTH RATE**

Jobs with postsecondary credentials have double or more the growth rate of jobs with a high school diploma or the equivalent.

The U.S. Bureau of Labor Statistics’ projected growth rate from 2016 to 2026 in occupational employment by entry-level education shows that postsecondary education matters. Jobs with entry-level education of postsecondary certificates, associate degrees, bachelor’s degrees and advanced degrees have double or more the growth rate of jobs with a high school diploma or the equivalent (5%).

Yes, postsecondary education and credentials still matter.

While the advantages of postsecondary education and credentials remain, the cost of postsecondary education is straining the pocketbooks of ordinary Americans. Calls for free college or student debt forgiveness are being debated in the public realm. However, many policymakers have lost sight of successful existing college acceleration opportunities that could help reduce the cost of college and prepare students for postsecondary success before students even leave high school.
The History of College Acceleration Opportunities

Colleges and universities have long allowed gifted and talented students to take college-level classes in a variety of ways. In the 1950s, the Advanced Placement (AP) program was created in recognition that students from elite prep schools were taking courses their freshmen year of college that repeated what they had learned in high school. Eventually, policymakers realized that the value of these opportunities extended beyond gifted and elite students. In 1985, Minnesota became the first state to develop a dual enrollment program. Other states followed, and now millions of students take advantage of the opportunity to take college-level courses and earn college credit before they leave high school.

While initial college acceleration opportunities were driven by the experiences of elite students in four-year degree programs, college acceleration opportunities today reach all student groups and have expanded to encompass associate degrees, postsecondary certificates and applied learning in the workplace. **College acceleration opportunities are increasingly taking a holistic approach to preparing students for college and career.** Consider the following examples:

- The College Board has partnered with WE Service to allow students to apply the skills they have learned in an AP course to solve real-world problems through service-learning projects. Through this initiative, students in an AP Physics class designed a fuel cell to provide energy during a natural disaster.

- IBM partnered with The City University of New York and the New York City Department of Education to create the Pathways in Technology Early College High School (P-TECH). This program provides students—particularly underrepresented students—with the academic, technical and workplace skills required for STEM fields and careers. P-TECH students graduate with their high school diploma and an industry-recognized associate degree.

- The College Board partnered with Advance CTE and career and technical education (CTE) directors from multiple states to align AP coursework with CTE programs of study. Maryland, for example, includes AP courses in CTE pathways, such as AP Computer Science A and Computer Science Principles in the state’s CTE pathway for computer science.

- High school CTE programs offer dual credit through many community and technical colleges across the U.S.

The Future of College Acceleration Opportunities

College acceleration opportunities can set students up for success. But before this can happen, states need to thoughtfully advance college acceleration opportunities that prioritize quality, value, equity and access for all students. This playbook outlines the challenges facing states and identifies the nine non-negotiables they need to embrace to guarantee high-quality college acceleration opportunities for their students.
College acceleration opportunities allow students to earn college credit while in high school. The table below offers general information about some of the most common college acceleration models.

### EXAMPLES OF COLLEGE ACCELERATION OPPORTUNITIES

<table>
<thead>
<tr>
<th>OPPORTUNITY</th>
<th>PROVIDER</th>
<th>STRUCTURE</th>
<th>COLLEGE CREDIT BASED ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Placement (AP)</td>
<td>College Board</td>
<td>Course and aligned exam</td>
<td>Exam score; AP Capstone diploma</td>
</tr>
<tr>
<td>Cambridge Advanced International Certificate of Education (AICE)</td>
<td>Cambridge International Examinations</td>
<td>Course and aligned exam</td>
<td>Exam score; diploma</td>
</tr>
<tr>
<td>College Level Examination Program (CLEP)</td>
<td>College Board</td>
<td>Exam</td>
<td>Exam score</td>
</tr>
<tr>
<td>Dual Credit (Dual or Concurrent Enrollment)</td>
<td>Postsecondary Institution</td>
<td>Course</td>
<td>Passing the course</td>
</tr>
<tr>
<td>Early College High Schools</td>
<td>District/Postsecondary Institution Partnership</td>
<td>High school model featuring dual enrollment coursework</td>
<td>Passing each course or completion of postsecondary credential</td>
</tr>
<tr>
<td>International Baccalaureate (IB)</td>
<td>International Baccalaureate Organization</td>
<td>Course and aligned exam</td>
<td>Exam score; diploma completion</td>
</tr>
</tbody>
</table>

Adapted from the Tennessee Department of Education’s *Early Postsecondary Opportunities in Tennessee*.

### Why It Matters

**Students Need Plurality of College Acceleration Options**

Students need to be able to select the college acceleration opportunities that best fit their interests and pathways. Policymakers, consequently, must avoid the temptation to latch onto one type of college acceleration opportunity without considering how other opportunities could serve students.

If a student is interested in advanced manufacturing through a Siemens Level I mechatronics certification, for example, a school would not be serving that student by offering AP US Government and Politics as the only college acceleration opportunity. Likewise, a rigorous IB program may not serve a student if it is an hour away by bus from the student’s home school. Schools best serve students when they provide a wide array of college acceleration opportunities to match individual student interest and college/career pathway.
Advanced Placement (AP)

Administered by the College Board, AP enables academically prepared students to pursue college-level studies. AP courses offer students the opportunity to earn college credit, placement or both while still in high school—helping them save time and money in college. AP courses are college-level courses, designed in part by college professors. AP exams provide external validation of teaching and learning in the classroom. The exams are scored by college professors and expert teachers—not the students’ own teacher. Nearly all colleges and universities in the U.S. and Canada—as well as many institutions in more than 100 other countries—grant credit and placement for qualifying AP exam scores.14

The College Board also offers an AP Capstone Diploma, which is based on two yearlong AP courses: AP Seminar and AP Research. Rather than teaching subject-specific content, these courses develop students’ skills in research, analysis, evidence-based arguments, collaboration, writing and presenting. Students who complete the two-year program can earn one of two different AP Capstone Awards, which postsecondary institutions around the world recognize for admissions, college credit or placement.

Cambridge Advanced International Certificate of Education (AICE)

The AICE Diploma program is an international high school curriculum and examination system. The AICE diploma is administered by a non-profit department of the University of Cambridge in England, and it consists of an academic curriculum with standardized examinations. To earn the diploma, students in participating high schools must pass seven credits’ worth of examinations based on the Cambridge International AS and A level curriculum. The diploma and its component curriculum and exams are recognized internationally for college credit by over 500 colleges and universities in the U.S.15

College Level Examination Program (CLEP)

CLEP is a credit-by-examination program by the College Board that allows students to demonstrate their mastery of introductory college-level material and earn college credit. Students earn credit for what they already know by earning qualifying scores on any of CLEP’s 34 examinations. While CLEP is sponsored by the College Board, only postsecondary institutions may grant credit toward a degree. A postsecondary institution often grants equivalent credit to a student who earns a satisfactory score on a CLEP exam as it does for a student who successfully completes the related course. Most CLEP exams are designed to correspond to one-semester courses, although some tests correspond to full-year or two-year courses.

Dual Credit (Dual Enrollment and Concurrent Enrollment)

The terms dual enrollment and concurrent enrollment are often used interchangeably to describe courses offered through a partnership between a high school and a postsecondary institution in which students earn both high school and college credit. However, concurrent enrollment reflects a high school instructor teaching a college course, while dual enrollment typically reflects a college instructor providing the instruction.

These dual credit courses can be taught at the college campus, the high school campus or through distance learning. The college is largely responsible for ensuring that the instructor and course standards and materials are commensurate with college courses traditionally offered to college students at the college campus. Because dual credit courses are established by individual colleges, there can be significant variation in terms of instructor qualifications, course standards, materials and exams. However, there are some organizations, such as the National Alliance of Concurrent Enrollment Partnerships (NACEP) that serve to provide third-party verification of dual credit college course quality.
Early College High Schools

Early college high schools are essentially dual or concurrent enrollment programs that allow a student to simultaneously earn a high school diploma and a postsecondary credential—usually an associate degree. The schools are a partnership between K-12 and postsecondary and sometimes include industry, like the Pathways in Technology Early College High School (P-TECH).

International Baccalaureate (IB)

The IB Diploma Programme is open to high school students at authorized schools and consists of six subject groups and an IB core. IB uses both external and internal assessments. Students earn the IB diploma if they earn sufficient points on each IB assessment. The IB Diploma is internationally accepted for entry into higher education. Postsecondary institutions vary in the acceptance of college credit for IB, although almost 100 colleges and universities offer college credit for IB exams. Some institutions offer college credit for both the full IB diploma and individual IB course exams.

Other Opportunities

There are additional options in which students can earn college credit, such as credit by examination and articulation based on industry certifications, for example.

Largest College Acceleration Options

There are several college acceleration opportunities available to students. However, there are data challenges in knowing how many students access these opportunities. Some states do not collect college acceleration data and there can be inconsistencies in data reporting based on the type of college acceleration opportunity. Nevertheless, the two largest options at the secondary level are dual credit and the College Board’s Advanced Placement (AP) program.

- **1.2 MILLION**
  U.S. high school students took dual credit in 2010-2011.

- **2.74 MILLION**
  U.S. high school students took AP exams in 2019.

- **39 PERCENT**
  of 2019 public high school graduates took at least one AP exam.
How Can College Acceleration Opportunities Benefit Students?

Research consistently demonstrates that college acceleration opportunities significantly benefit students. And these findings have triggered an explosion in the number of students who enroll in these programs.

Students who take college acceleration opportunities in high school are more likely to graduate high school, go on to college and complete college degrees.

College Persistence and Graduation

A University of Texas (UT) system study found that:

- 60% of first-time college students in the UT system from Texas had dual, AP or IB credits in the fall of 2015.
- These students were more likely to persist in college. Dual credit holders were twice as likely to continue through the first and second years of college. AP and IB students were three times more likely.
- These students had higher college GPAs and were more likely to graduate on time.

Students who complete one AP course are three percentage points more likely to graduate college within four years.

Students who score a three or higher on an AP exam are six percentage points more likely.

Dual credit students

IB diploma earners

Cambridge AICE diploma earners are more likely to enroll in college and graduate with a bachelor’s degree within four years.

A national study of 10 early college high schools (ECHS) shows that:

Early college high school benefits students

- Won Lottery to Attend ECHS
- Did Not Win Lottery

64% Enrolled in College After High School

23% Completed College Within 6 Years

45%
Academic Outcomes

In Ohio four-year universities:

**College freshman students with dual credit or AP**

- Had higher GPAs in college
- Attempted more credit hours
- Completed more credit hours

than their peers who were not dual credit or AP students in high school.\(^{23}\)
What Are the Challenges to College Acceleration Opportunities?

With these benefits, the allure of college acceleration opportunities is strong in policy circles and states. However, there remain some real challenges in providing these opportunities.

<table>
<thead>
<tr>
<th>Challenges to College Acceleration Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Quality and Value</td>
</tr>
<tr>
<td>2. Equity and Access</td>
</tr>
<tr>
<td>3. Capacity</td>
</tr>
<tr>
<td>4. Sustainable Funding</td>
</tr>
</tbody>
</table>

**Quality and Value**

Quality college acceleration options should prepare students for the rigors of college-level work, while allowing them to earn valuable college credit that reduces their cost and time to a postsecondary credential.

**COLLEGE-LEVEL RIGOR**

College-level rigor remains a challenge in college acceleration opportunities, particularly in dual credit offerings.

Dual credit offerings confer postsecondary credit based on course completion with a passing grade, in contrast to scores on state or nationally recognized exams used by other opportunities. Commissioners of higher education in Louisiana and Texas have expressed concerns that some dual credit courses are not rigorous enough or are little more than another high school course. The quality of a dual credit course significantly varies based on the type of instructor (high school teacher or college faculty) and the frequency by which the postsecondary institution reviews the course and student outcomes. College faculty have expressed concerns that dual credit courses may not have the same learning objectives, course materials and assessments as a college course, along with concerns over the capability of high school teachers to teach college-level courses.

Regardless of the form, student outcomes from all college acceleration opportunities need greater understanding and research. Colleges and high schools could improve the quality of opportunities they offer by using student outcome data to ensure offerings truly are high quality. Even NACEP accreditation, which is a review of concurrent enrollment courses against a common set of standards, in a recent study did not show a difference between college enrollment and college retention for NACEP and non-NACEP-accredited dual credit. There’s clearly room for progress.
VALUE TO STUDENTS

Quality college acceleration opportunities can offer students significant benefits. These can include the opportunity to attempt college or college-level courses in high school, the ability to earn college credit or hours, and a reduced time and cost to earning a postsecondary credential. However, many barriers keep students from accessing these benefits. For some students, college acceleration opportunities are simply unavailable. Other students may be unaware of available opportunities or, if they are aware, doubt they are capable of college-level work. And then, of course, some college acceleration course credits fail to transfer into meaningful college credit.

This issue with credit acceptance exists when a student’s “earned” college credit isn’t recognized by all institutions, applies only to electives or courses that are not part of credential requirements, or cannot be transferred to subsequent postsecondary institutions—hindering the student’s transition from one postsecondary institution to another. These stranded credits can result in wasted time and resources. Students earning stranded credits may unwittingly forego other college acceleration opportunity courses with a greater likelihood of credit acceptance, earn credits that don’t qualify for a degree or credential, or risk taking excess credit hours at their expense or the expense of the state.

Why It Matters

Stranded Credits Hurt Students (and States)

When students earn college credit, they assume it will apply toward a future college degree or credential—but that isn’t always the case. Stranded credit occurs when a student earns college credit, but that credit isn’t accepted towards the student’s credential program. The student loses the time enrolled in the course as well as any tuition or fees expended in a course. This is particularly vexing considering that—with better information—students likely could have used that same time and money to work toward their future degree or credential. Consider the following hypothetical example:

### THE POTENTIAL IMPACT OF STRANDED CREDITS

<table>
<thead>
<tr>
<th>Student with valuable credits</th>
<th>Student with stranded credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earns valuable credits. ☑ ☑ ☑ ☑</td>
<td>Racks up unhelpful credits and expenses. ✗ ☐ ☐ ☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>High School</th>
<th>College</th>
<th>College Graduation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has credits that transfer and apply toward future degree. ☑</td>
<td>Has credits that do not transfer or do not transfer to the postsecondary credential program. ☒</td>
<td>Needs extra time to graduate and incurs additional yearly expenses. ☒ ☐ ☐ ☐</td>
</tr>
</tbody>
</table>

Graduates on time—saving time and money. ☑ ☑ ☑ ☑

And stranded credits affect more than just students. States have an interest in students completing their credential on a timely basis. Each additional credit hour that doesn’t translate into viable credit means additional costs to the state for program costs and state subsidies, as well as reduced access to postsecondary admissions for additional students because the student with stranded credits may be taking longer to complete their credential.
Access to college acceleration options remains a stubborn problem, particularly for traditionally underrepresented low-income and minority students. Nationally, Hispanic students took approximately 23% of AP exams in 2019, which is roughly in line with Hispanic enrollment in U.S. public schools. However, African-American students took 6% of AP exams, even though enrollment in public schools for African-American students is around 15%.28

In many cases, these students simply don’t have access to these courses. A recent report from the Education Trust found that low-income and minority students are less likely to attend schools that offer college acceleration options. But even when they do have access, they are often assigned to these options at lower rates than their peers. Accordingly, the experiences of these students can change significantly from school to school and state to state.

In a University of Texas system study from 2010 to 2015, traditionally underrepresented minorities were less likely than their peers to enter college for the first time with college credit from dual credit, AP or IB.30

This equity data reveals a core problem—traditionally underrepresented students are not accessing college acceleration opportunities like their peers or are not succeeding in these opportunities. Consequently, these students are potentially missing out on the benefits of earning college credit—higher GPAs, greater retention rates and timely college completion.

Equity in enrollment in dual credit programs can vary significantly. For example, consider student enrollment in dual credit courses in Colorado and California. In a review of Colorado’s dual credit programs, the state found that the dual credit programs closely resembled the composition of the state’s public high schools, with 51% of White students and 25% of Hispanic students taking dual enrollment.31 However, recent data from California found only 11% of Hispanic/Latin students took dual enrollment at a California community college, despite comprising half of the state’s high school seniors.32 States can—and must—address equity and access concerns to ensure all students have access to quality college acceleration opportunities.
A significant reason why states and schools fail to offer more students college acceleration opportunities is that schools often simply lack the capacity to deliver these offerings. Lack of capacity can take two forms: (1) a shortage of qualified instructors or (2) an insufficient number of students to justify hiring a qualified instructor, especially in rural or remote schools.

In dual credit, for example, capacity issues are often tied to instructor qualifications to teach dual credit courses. The Higher Learning Commission, the country’s largest regional accreditor, issued a policy clarification in 2015 that high school teachers in dual credit courses along with all college instructional faculty must have a master’s degree in the area of teaching or at least 18 graduate-level credit hours within that specialty. This policy affected 19 states. While schools and colleges in some states already met the requirements, other states have had to apply for extensions until 2022. States are employing options such as offering incentives in teaching contracts and providing state grants to help teachers earn the qualifying credential or credit hours. Nevertheless, meeting instructional faculty qualifications remains a real challenge for many schools—particularly rural schools.

Rural schools may also face the additional challenge of having an insufficient number of students willing or able to enroll in a particular college acceleration opportunity. These schools are faced with a difficult choice of reconciling student interest and preparedness with the available funding to hire a qualified instructor, if one can be found in these communities. Funding affects capacity, to which we will turn next.

Some states are solving capacity issues in low-income and traditionally underrepresented schools by partnering with organizations like the College Board to train more AP teachers in these schools. And there’s even a competitive grant program to help. The AP Fellows program provides AP Summer Institute scholarships for teachers in high schools serving minority or low-income students who have been traditionally underrepresented in AP courses.

There are over 630,000 open computing jobs in the U.S., and these jobs are the number one source of new wages in the U.S. Families and educators recognize the importance of preparing students with the knowledge and skills this growing job market requires. In fact, 83% of parents and 64% of principals in rural and small towns believe offering computer science is more or equally as important as any required course. Even so, just 40% of high schools in rural communities teach computer science (across 39 states), and only 20% of high schools offer AP Computer Science (AP Computer Science A or AP Computer Science Principles). Thousands of students in communities across the nation are missing out on learning valuable skills because their schools lack the resources and instructors to offer quality computer science courses.
Sustainable funding is a significant issue for college acceleration opportunities. Funding challenges encompass:

- Student costs to enroll in and complete college acceleration options (e.g., tuition, exam fees and books);
- Costs associated with instructor preparation of qualification (e.g., educator credentialing and professional development);
- Program costs (i.e., the cost to the school to offer these programs); and
- Concerns over the state’s investment in providing college acceleration opportunities (e.g., unanticipated demand triggering significant funding outlays, double-funding concerns and state return on investment).

These funding concerns exist as a growing number of students are accessing college acceleration opportunities but the federal and state support for these opportunities are in flux.

For example, under the federal Every Student Succeeds Act (ESSA), the federal government collapsed the AP Test Fee Program—which provided funding to offset the cost of AP and IB exams for low-income students—into a larger block grant with roughly 40 other educational programs. States and schools that were using these funds to lower AP test exam fees are now responsible for prioritizing funding under the block grant or are required to backfill the funding themselves to ensure that low-income students do not encounter financial barriers in taking AP exams. For 2020, 29 states and D.C. have committed to fully or partially cover the cost of AP exams for low-income students. Illinois, for instance, decided in 2017 to use $1.8 million of the prior year’s unused Title I money to make up for the missing federal AP subsidy. Even some school districts, like Prince George’s County in Maryland, are offsetting the AP exam fee funding loss. Other states, like California, have not set aside dedicated funds for AP exam fees.

**Why It Matters Funding Can Expand—or Limit—Student Success**

In Georgia, the state legislature adopted a program called “Move on When Ready” that dramatically expanded dual credit opportunities for students and opened up the entire postsecondary course catalog. Student enrollment in the dual credit program exploded from 11,484 students in FY 2013 to 43,639 in FY 2018 due to popularity with students. While this was good news for students, it was bad news for the budget. This increase created a $25 million budget gap for the increasingly popular dual credit program for 2019-20. To cover the gap, Georgia has resorted to cutting funding for instructional materials and has discussed capping the number of dual credit hours students can earn. As states seek to provide students with equity and access to college acceleration opportunities, they can take a lesson from Georgia and identify—on the front end—ways funding can prevent runaway costs.
What Are the Non-Negotiables for High-Quality College Acceleration Opportunities?

There is general agreement on the benefits and challenges of college acceleration opportunities, yet policymakers often struggle with the how. How can states and schools ensure that college acceleration opportunities deliver on student value, expand access and address underrepresented students without breaking the bank?

To ensure high-quality college acceleration options, ExcelinEd recommends that states and schools evaluate their current offerings through the lens of the following set of non-negotiables for high-quality college acceleration opportunities.

<table>
<thead>
<tr>
<th>Quality and Value</th>
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<tbody>
<tr>
<td>1. <strong>Data Collection and Analysis:</strong> States collect, analyze and publicly report student outcome data on college acceleration opportunities and use the data to strengthen access, quality and student success.</td>
</tr>
<tr>
<td>2. <strong>Input Reviews:</strong> Postsecondary institutions, K-12 and providers regularly review the standards, instructional materials, educator qualifications, exams, student outcome data and vertical linkages of offerings to ensure quality.</td>
</tr>
<tr>
<td>3. <strong>Consistent Guidelines:</strong> States adopt consistent credit acceptance and transfer guidelines across K-12 and postsecondary institutions to ensure quality opportunities that offer students valuable credit.</td>
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<tr>
<td>4. <strong>Defined and Articulated Pathways:</strong> States ensure opportunities are part of a clearly defined and articulated pathway to a postsecondary credential.</td>
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<table>
<thead>
<tr>
<th>Equity and Access</th>
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<tbody>
<tr>
<td>5. <strong>Plurality of Student Options:</strong> School districts offer a plurality of opportunities in all high schools to ensure students can select opportunities that align with their chosen career pathways.</td>
</tr>
<tr>
<td>6. <strong>Student Cost:</strong> States ensure that opportunities are available for little or no cost to the student.</td>
</tr>
<tr>
<td>7. <strong>Multiple Measures for Student Eligibility:</strong> Postsecondary institutions and schools use multiple measures of student eligibility to allow students to enroll in opportunities, especially low-income and traditionally underrepresented students.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Educators and Advisors</th>
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<tbody>
<tr>
<td>8. <strong>Educator Training:</strong> States and school districts ensure that educators in all schools receive appropriate training to teach college acceleration opportunities.</td>
</tr>
<tr>
<td>9. <strong>Student Advisement:</strong> Schools notify students in all schools of available opportunities and use state indicators to identify low-income and traditionally underrepresented students with the potential to succeed in college acceleration opportunities.</td>
</tr>
</tbody>
</table>

Schools notify students and their parents of the credit transferability for each college acceleration option before students enroll.
DATA COLLECTION AND ANALYSIS

States collect, analyze and publicly report student outcome data on college acceleration opportunities and use the data to strengthen access, quality and student success.

States do not often collect and analyze data on student outcomes of college acceleration opportunities, although there are some states that do one-time reviews. Without this analysis, states, postsecondary institutions and school districts may not know how to improve their college acceleration opportunities for students. And the students themselves cannot make informed choices on the college acceleration opportunities that offer the best value.

When states do collect data, most of the data is focused on how these opportunities perform in the aggregate by college acceleration opportunity, rather than by school or school program. And even when this data is collected, it rarely makes its way back to schools to improve the offerings or provide a more informed choice for students.

What Can States Do?

States can fund the data collection, analysis and research to help create better college acceleration opportunities for students. This data analysis, at the very least, should follow the student from high school, through postsecondary education and to the workforce. Armed with this data, states can better understand whether certain acceleration opportunities have improved students’ likelihoods of completing high school, entering postsecondary education, completing a college credential program on schedule and entering the workforce in a mid- or high-wage job.

This data will also enable states to examine where financial investments have led to future student success and identify which college acceleration opportunities yield better returns for students’ and the state’s investments.

What Can Postsecondary Institutions Do?

Postsecondary institutions can use student outcome data to evaluate the success of their programs. This will help institutions analyze the inputs of the college acceleration opportunities—such as instructors, curriculum or the mode of delivery—and make recommendations to the state regarding guidelines for the acceptance of college credit.

What Can Schools Do?

Schools can use student outcome data to see if an offering or instructor leads to better future student outcomes. For example, are there differences in future student success when a student takes a dual credit English composition course or an AP English composition at a school? And what is High School Educator X doing that High School Educator Y is not to help improve student success in X’s classroom?

Schools can also share the analysis with students and parents to allow the students to make informed choices about college acceleration opportunities that align with their wishes and career pathway.
INPUT REVIEWS
Postsecondary institutions, K-12 and providers regularly review the standards, instructional materials, educator qualifications, exams, student outcome data and vertical linkages of offerings to ensure quality.

What Can States Do?
States can require postsecondary institutions and K-12 schools to periodically review the standards, curriculum, instructional materials, educator qualifications, exams and vertical linkages to ensure the quality of college acceleration opportunities. States should consult with these postsecondary institutions and K-12 schools to determine the frequency of the reviews, as well as whether external evaluators should be used to assist in the quality review.

CONSISTENT GUIDELINES
States adopt consistent credit acceptance and transfer guidelines across K-12 and postsecondary institutions to ensure quality opportunities that offer students valuable credit.

In some states, the governing board for higher education or individual postsecondary institutions determine credit acceptance for college acceleration opportunities. In others, the legislature requires postsecondary institutions to accept certain scores or grades for college credit (i.e., requiring an AP score of 3 to be accepted for college credit).

However, given college faculty’s concerns about the quality of college acceleration opportunities regardless of the mode (dual credit vs. AP or IB, for example), the state should step in and—in consultation with postsecondary and K-12—provide consistent guidelines for the acceptance of college credit. These guidelines should: encompass CTE credit; be consistent across K-12, two-year and four-year postsecondary institutions; and affect the way the college credit is applied (as elective credit, general education credit, credential prerequisites or toward the postsecondary degree or credential requirements).

Finally, these guidelines should use student outcome data rather than solely being based upon input reviews.

What Can States Do?
The state can enact guidelines to ensure consistent application of college credit among K-12, two-year and four-year institutions. These guidelines must be informed by student outcome data.
While college-educated workers fared best in the recovery from the Great Recession, employers are becoming more skill focused in their search for new workers. Applicants are expected to bring both college and career skills to the workplace. And college doesn’t necessarily mean a four-year degree. However, only a few states have aligned their CTE programs with their college acceleration opportunities. States like Tennessee have recently embedded college acceleration opportunities within career pathways to guide students in making informed choices about their future career plan. Unfortunately, these states are in the minority.

**COMPUTER SCIENCE PATHWAY FROM TENNESSEE**

*Example Pathway*

<table>
<thead>
<tr>
<th>COURSE</th>
<th>LEVEL</th>
<th>INDUSTRY CERTIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Science Foundations</td>
<td>1</td>
<td>CompTIA IT Fundamentals</td>
</tr>
<tr>
<td>OR Cambridge IGCSE: Computer Science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coding I</td>
<td>2</td>
<td>Microsoft Technology Associate Software Development Fundamentals AND/OR</td>
</tr>
<tr>
<td>OR AP Computer Science Principles</td>
<td></td>
<td>CIW Web Foundation AND/OR</td>
</tr>
<tr>
<td>Coding II</td>
<td>3</td>
<td>JavaScript Specialist AND/OR</td>
</tr>
<tr>
<td>OR Mobile App Development</td>
<td></td>
<td>Advanced HTML5/CSS3 AND/OR</td>
</tr>
<tr>
<td>OR AP Computer Science Principles</td>
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<td></td>
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<tr>
<td>OR Dual Enrollment: Coding I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coding Practicum</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>AND/OR AP Computer Science A</td>
<td></td>
<td></td>
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<tr>
<td>AND/OR AP Computer Science Principles</td>
<td></td>
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<tr>
<td>OR Dual Enrollment: Coding II</td>
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<tr>
<td>OR Cambridge International AS Level:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer Science</td>
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</tbody>
</table>

Adapted from the Tennessee Department of Education’s 2019-20 Programs of Study.
What Can States Do?
States can review their CTE pathways to incorporate college acceleration opportunities where appropriate. The state review will require the state agencies responsible for education, higher education and workforce to work with employers and industry to clearly define the pathways.

What Can Postsecondary Institutions and K–12 Schools Do?
Postsecondary and K-12 can work in concert with state, regional and local employers and industries. Together, they can identify employer demand, ensure pathways are rigorous and aligned to employer need, and confirm that college acceleration opportunities are embedded in career pathways along with industry-valued credentials. These pathways must be linked to middle- and high-wage jobs. These entities can then inform students and parents about these pathways.

Improve State CTE Programs
ExcelinEd’s CTE playbook Auditing a State Career and Technical Education Program for Quality offers a practical guide to transform the value of CTE programs and expand opportunities for students.

Advance CTE and the College Board’s report Advanced Placement® and Career and Technical Education: Working Together shows how AP and CTE courses can work in tandem to support career readiness.
PLURALITY OF STUDENT OPTIONS

School districts offer a plurality of opportunities in all high schools to ensure students can select opportunities that align with their chosen career pathways.

In most schools, the selection of college acceleration opportunities is largely decided by the adults in the school system. A school may decide to focus on its relationship with a local community college or insist on AP, IB or other options. However, these school- or district-level decisions can ultimately hurt students. Students need to be in the driver’s seat when it comes to choosing the college acceleration opportunities that fit their interests and pathways. However before this can happen, they first need access to the type of courses or programs that align with their chosen pathway—like a dual credit course in computer science.

The decision to focus on only one type of college acceleration option has real consequences in future student success. For example, a University of Texas System study revealed that students who took AP or IB and dual credit were five times more likely to remain in college the first and second year compared to two times and three times for only dual credit or AP/IB, respectively.44 Likewise, these students were five times more likely to graduate on time compared to students who only took dual credit (three times) or AP/IB (three times).45

In some schools, there isn’t a real option at all—these schools may not offer any college acceleration opportunities or only one course. If these students find their way to college, they will face increased hurdles in the form of college affordability, timely completion, grades and a reduced likelihood of completion.

States can require schools to offer a plurality of college acceleration options and in multiple subjects. To ensure equitable access, states could use a variety of incentives or competitive grants to expand these opportunities for students. And the state must audit and regularly review offerings to ensure these opportunities are being offered.

Indiana, for example, requires all high schools to provide at least two course offerings in dual credit and AP. (Or the high school can use at least two Cambridge AICE courses.)49 Florida requires each high school to offer IB, Cambridge AICE or a combination of at least four courses in dual credit or AP.50
STUDENT COST
States ensure that opportunities are available for little or no cost to the student.

One of the greatest barriers to low-income and traditionally underrepresented students participating in college acceleration opportunities is financial. Tuition, fees, instruction materials or other costs can prohibit otherwise qualified students from earning potentially lifechanging college credit.

The 2016 Idaho Legislature addressed this issue by funding an account per student ($4,125), which the student can use to pay for dual credit, AP and IB exams or industry certification exam fees. In 2015, prior to the new law, fewer than 15,000 Idaho students took courses that count for both college and high school credit. In 2019, over 36,000 students took these courses.

In 2009, Colorado began directing school districts to use district revenues (districts still reported students in dual credit for per-student funding) to pay the tuition and fees that do not exceed the resident community college rate to the postsecondary institution on behalf of the student. From 2016-17 to 2017-18, enrollment in dual credit increased 16 percentage points for African-American students, 17 percentage points for Hispanic students and 18 percentage points for Native American students.

What Can States Do?
States can fund college acceleration opportunities to eliminate costs for students. The funding should cover all the costs of enrolling. Cost-savings would be realized by:

1. Ensuring the cost of dual enrollment courses are equal to or less than the cost of the postsecondary course outside of the dual credit program and
2. Requiring districts to share a student’s funding while the student is enrolled in a dual enrollment course with the postsecondary institution in which the dual credit is attempted.

The cost-sharing arrangement would be affected by the instructor providing the dual enrollment instruction (college faculty versus high school educator).

Free Exam Prep for Students
Modern States Education Alliance, a nonprofit organization, offers free online courses to high school students and can help these students prepare for AP or CLEP exams.
MULTIPLE MEASURES FOR STUDENT ELIGIBILITY

Postsecondary institutions and schools use multiple measures of student eligibility to allow students to enroll in opportunities, especially low-income and traditionally underrepresented students.

States and postsecondary education institutions that rely on a single metric for eligibility for college acceleration courses—especially college placement and standardized tests—may unintentionally limit opportunities for minority students. This is particularly troublesome for dual credit as—unlike AP, IB and other college acceleration opportunities—dual credit often requires the student to be admitted into the postsecondary institution or there are state eligibility requirements. The impact of the single metric would obviously depend on the level of the score.

What Can States Do?

States can take a holistic approach to student eligibility. They can use a standardized assessment score but specify other metrics that allow a student to demonstrate their ability to succeed in dual credit, such as school grades or a portfolio of work. Additionally, states can encourage postsecondary institutions to look beyond a single score, including the use of grants or incentives to these institutions to not only enroll more students but help them succeed.

Identify Students and Courses

The College Board’s free web-based tool AP Potential can help states, districts and schools identify AP students and choose the AP courses that interest them.
Qualified educator capacity remains a daunting challenge, especially in low-performing schools and rural schools. States can develop their educator pool by identifying and fostering teachers to become instructors of college acceleration opportunities.

Indiana, for instance, is awarding grant money to postsecondary institutions to help educators meet the dual credit accreditor requirements. Some school districts in Indiana provide incentive funding to educators in their contracts if they become dual credit credentialed.

In Florida, there’s a long history of partnering with the College Board to expand the pool of AP-qualified teachers. The state’s Florida Partnership for Minority and Underrepresented Student Achievement is a collaboration between the College Board and the Florida Department of Education that is dedicated to improving the academic experience for all Florida students—especially underrepresented students. The collaboration works by connecting assessments (through the PSAT and NMSQT), access to rigorous coursework (through AP) and professional development opportunities for educators. The state also rewards educators with bonuses for each student who earns a qualifying score on AP, IB, AICE and qualifying industry certifications—and the bonuses increase when the student is enrolled in a low-performing school.

In Illinois in 2019, Chicago Mayor Rahm Emanuel and Chicago Public Schools announced additional investments of $32 million to support staffing, training and learning resources for several academic programs, including expanding IB programs to seven more schools that serve approximately 1,900 students. More than 19,000 students will have access to IB programs in Chicago Public Schools, making Chicago Public Schools the largest IB network in North America.

**What Can States Do?**
States can partner with organizations like the College Board and others to expand college acceleration opportunities for more students by training future educators. States can also incentivize postsecondary institutions to train educators and encourage educators to earn the credentials needed to teach dual credit. These incentives could also target school districts, prompting them to encourage educators to participate in the training and become qualified college acceleration opportunity instructors.

**What Can Schools Do?**
Schools can create incentives to encourage classroom teachers to become qualified college acceleration opportunity educators.
STUDENT ADVISEMENT

Schools notify students in all schools of available opportunities and use state indicators to identify low-income and traditionally underrepresented students with the potential to succeed in college acceleration opportunities.

Schools notify students and their parents of the credit transferability for each college acceleration option before students enroll.

One of the challenges in expanding quality college acceleration opportunities to all students is that students are often unaware that these options are available to them or they lack understanding of how to appropriately use these options as they transition from high school to college and career.

In 2000, Florida addressed the notice issue by partnering with the College Board to use assessment data to identify students capable of college-level work and support those students who may need some extra help.60 This partnership has been instrumental in driving Florida's enrollment and performance success in AP, especially by Hispanic and African-American students. For the 2019 graduating class, Florida ranks first in AP participation and third in AP performance (percentage of students scoring a 3 or higher on an AP exam).61 In fact, Florida became the first state to erase the equity gap in AP between Hispanic and white students.

AP PARTICIPATION & PASSING IN FLORIDA62

More problematic for students is the ambiguity surrounding course selection. Students must often choose between college acceleration options without a clear understanding of how their performance will be translated into college credit or how their opportunity fits in their chosen pathway. A student may not know that he or she needs a certain score on an exam to secure college credit at a postsecondary institution or in a postsecondary credential program. Similarly, a student may not know that a dual credit course offered within his or her pathway may be better for the student over a college acceleration opportunity focused on meeting general education requirements. Students need this information before they enroll.

What Can States Do?

States can require schools to notify students of available college acceleration options, along with the thresholds for earning college credit and the applicability of the college credit to the student’s credential program of interest. States can also help with the initial identification of students capable of succeeding in college acceleration opportunities—especially low-income and underrepresented students—by using assessment scores or other required metrics.
Postsecondary institutions can help students by clearly posting on their websites, applications and other materials the criteria for the award of college credit and how it can apply to credential programs. These institutions can work with schools to clearly identify the criteria for college credit acceptance that students would need to know before enrolling in the college acceleration opportunities.

Schools and their educators and advisors can ensure all students are aware of college acceleration opportunities, the alignment of these opportunities with student interest and chosen pathway, as well as the criteria for acceptance of college credit before students enroll in these opportunities.

Washington state has enacted legislation that will, beginning with the 2021-22 school year, automatically enroll students in advanced or accelerated college opportunities who meet or exceed certain statewide English/Language arts and math assessment scores. The law is modeled after a similar policy in the Federal Way School District.

This report is the starting point for deeper conversations to explore how policymakers can improve quality, access, equity and sustainable funding for college acceleration opportunities. In the next playbook, ExcelinEd will examine ways states can improve access and equity in college acceleration opportunities and include a roadmap states can use to expand college acceleration opportunities for all students.
Endnotes


2 Id.


5 America’s Divided Recovery, College Haves and Have-Not, Georgetown University Center on Education and the Workforce, 2016, https://cew.georgetown.edu/cew-reports/americas-divided-recovery/.


11 Id.


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25 Troutman, Dual Credit Study, Dual Credit and Success in College.
26 Exploring the Outcomes of Standards-Based Concurrent Enrollment and Advanced Placement in Arkansas, Taylor, Jason L., Yan, Rui, University of Utah, October 1, 2018, available at: http://www.nacep.org/docs/accreditation/Exploring%20Recent%20Research%20on%20Dual%20Enrollment.pdf,


28 Id.


30 Troutman, Dual Credit Study, Dual Credit and Success in College.


39 Id.

40 Id.


43 Id.

44 Troutman, Dual Credit Study, Dual Credit and Success in College.

45 Id.


56 Id.

57 See s. 1007.35, F.S.

58 See s. 1011.62 (1), (f), (m), (n) and (o), F.S.


