Two hallmarks of a high-quality career pathway are seamless transitions across secondary and postsecondary education and offering learners the opportunity and means to participate in early postsecondary opportunities (EPSOs), which include dual enrollment, dual credit, concurrent enrollment and other related opportunities. However, much work remains to ensure that EPSOs are provided in every career pathway. In particular, it is critical that these opportunities seamlessly result in articulated postsecondary credit for learners in a degree program that will help them progress on their chosen career pathway with no hidden barriers.

The opportunity for learners to get a head start on college courses while still in high school makes postsecondary credential and degree attainment easier and more affordable. Research consistently shows when learners are able to participate in EPSOs, they are more likely to graduate high school, complete college programs and be successful in their careers. For learners of color, learners experiencing low income and first-generation college learners, the positive effects of degree attainment are even stronger.

While EPSOs are increasingly available for learners within career pathways, without strong policies and systems in place, too often learners engage in “random acts of dual enrollment” rather than earn credits that transfer seamlessly into their selected postsecondary institution and count toward degree program requirements. This paper elevates three states with long-standing programs and describes how these policies were implemented and scaled at the local level to provide consistent, statewide opportunities for learners. While each of the examples in this paper focuses on a different approach to offering EPSOs, what makes these policies stand out is the seamless transfer of academic and technical EPSO credits from secondary to postsecondary institutions statewide, the articulation of those credits into a career pathway, the strength of the state and local partnerships and the focus on removing barriers for learners to improve equity and access.
Early Postsecondary Opportunities (EPSOs)

EPSOs are courses and/or exams that give learners the chance to obtain postsecondary credit while still in high school. Terms related to EPSOs include:

- **Articulation Agreement**: Articulation agreements are formal agreements created between public school districts and postsecondary institutions or at the state level to align high school and postsecondary curricula and create sequences of courses offering skill attainment without unnecessary duplication to support the earning of articulated credit by learners.

- **Articulated Credit**: Articulated credit is postsecondary credit provided by an individual college upon matriculation for successful completion of college-level high school coursework.

- **Concurrent Enrollment/Credit**: Concurrent enrollment is the subset of dual enrollment courses taught by college-approved high school teachers. Through concurrent enrollment, learners gain exposure to the academic challenges of college while in their supportive high school environment, earning transcripted college credit when they successfully pass the course.

- **Dual Enrollment/Dual Credit**: Dual credit is the term given to courses through which high school learners have the opportunity to earn both high school and college credits simultaneously. Dual credit courses are taught by high school faculty, adjunct college faculty or college faculty at the high school, at the college or university or sometimes through online courses or distance education.

- **Transcripted Credit**: Transcripted credit refers to postsecondary-level credits that learners receive on their transcript prior to entering college after completing courses while in high school.
Tennessee has been expanding its EPSO program for nearly a decade. In 2013, former Governor Haslam launched the Drive to 55 initiative to increase the percentage of Tennesseans with a postsecondary degree or certificate to 55 percent by 2025. The state identified EPSOs as one of the most significant ways in which high schools across the state could help prepare learners for postsecondary success and began developing a portfolio of EPSOs. As part of the portfolio approach, all high schools must offer two or more types of EPSOs to ensure that the opportunities are accessible to all high school learners. The state developed enough EPSO offerings that the Tennessee Board of Regents was able to look across the list of courses and identify those that would complement each secondary Career Technical Education (CTE) program of study.

Today, all institutions within the University of Tennessee system and under the Tennessee Board of Regents accept EPSO credits. Learners typically earn credit by passing an assessment developed collaboratively by postsecondary institutions, with the exception of dual enrollment, in which credit is awarded to learners who complete the course. Each higher education institution awarding credit determines whether the credit is applied toward a major or the requirements of a specific program or as an elective.

To develop its EPSO program, Tennessee relied on existing state agency partnerships and built new ways to foster partnerships among the postsecondary institutions and school districts. For example, the state has multiple postsecondary transition advisory councils, which each include representation from the relevant industry sector, postsecondary institutions and district school staff working on postsecondary access. Specifically, the College, Career and Technical Education (CCTE) Transition Advisory Council was established in 2017 to provide recommendations on ways to strengthen the alignment of K–12, postsecondary and the workforce to improve transitions for learners across the state. The advisory council’s 27 recommendations focused on the challenges, priorities and barriers to successful implementation of high-quality CTE programs of study. One of the recommendations was for the state to work with the General Assembly to increase budget investments to allow more learners to participate in EPSOs.

Tennessee braids the state’s federal dollars with other state funds to ensure that EPSOs are adequately funded. The state uses these funds to provide incentives to districts, including testing reimbursements for learners experiencing low income.

To further institutionalize and incentivize the adoption of EPSOs, Tennessee made them a priority in both state and federal plans, including its Every Student Succeeds Act (ESSA) and Strengthening Career and Technical Education for the 21st Century Act (Perkins V) plans; the Tennessee Department of Education’s strategic plans, Tennessee Succeeds and Best for All; and state legislation. One of the strongest ways Tennessee is prioritizing EPSOs is through its Ready Graduate indicator, an accountability metric included in both its ESSA and Perkins V plans. This indicator measures the percentage of learners who earn a diploma from a Tennessee high school and meet success milestones that increase their probability of seamlessly enrolling in postsecondary education and securing high-quality employment. To further support implementation, Tennessee braids the state’s federal dollars with other state funds to ensure that EPSOs are adequately funded. The state uses these funds to provide incentives to districts, including testing reimbursements for learners experi-
Tennessee is working to further improve equitable access to EPSOs, with a focus on removing the financial burden from the learner. The state provides dual enrollment grants to high school learners, as outlined by state legislation. The grants allow learners to take up to 10 dual enrollment courses for free. In addition, Tennessee’s statewide dual credit EPSO option is free and guaranteed to transfer to any in-state public postsecondary institution. It is a credit-by-exam course offered in high schools, and learners do not have to qualify or meet requirements to participate. Going forward, Tennessee is working to increase the number of EPSO courses offered as well as expand postsecondary credit for prior learning through dual enrollment and work-based learning.

Tennessee’s statewide dual credit EPSO option is free and guaranteed to transfer to any in-state public postsecondary institution.

The district is also prioritizing EPSOs in its Perkins V Comprehensive Local Needs Assessment process and local application. One of the district’s goals for the 2019 graduates was to increase the number of Career Clusters® that offer EPSOs from eight to 12. Rutherford County Schools has now expanded this focus for all 16 of the recommended Career Clusters. The district also set a goal of tripling industry certifications, with support from industry partners that are helping to cover some costs associated with the certifications. This effort is all part of the district’s strategy to ensure that its learners graduate high school having attained multiple EPSOs with value in both college and the labor market.

Rutherford County Schools also prioritizes making EPSO attainment easier and more equitable for learners. The district received funds from the state’s Perkins Reserve Competitive Grant to pay for some of the industry certifications for learners. Additionally, the district pays to support advanced academic programs such as Advanced Placement, Cambridge and International Baccalaureate. It is going to begin funding an early college high school with a local postsecondary partner to provide high school learners an even more direct pathway to an associate degree.

Finally, Rutherford County Schools leverages data to assess outcomes. The district tracks learners at the school and district levels by cohort longitudinally to analyze trends and predict success for learners and sub-groups. It found that opportunity gaps exist in multiple sub-groups, including race and gender. This data has been useful in guiding the ways in which school counselors and teachers provide career pathway recommendations to learners and families.
Ready Graduate Indicator Overview

Ready Graduate Indicator Evidence of Completion
The Ready Graduate indicator is meant to capture evidence of student performance beyond academic proficiency to represent a holistic, well-rounded education. The following table indicates what evidence will indicate a student has met each of the measures of readiness.

<table>
<thead>
<tr>
<th>Early Postsecondary Opportunities</th>
<th>Evidence of Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Placement (AP)</td>
<td>Complete course and attempt exam</td>
</tr>
<tr>
<td>Cambridge International Examinations (CIE)</td>
<td>Complete course and attempt exam</td>
</tr>
<tr>
<td>College Level Examination (CLEP)</td>
<td>Earn a passing score of 50 or higher on exam</td>
</tr>
<tr>
<td>Dual Enrollment</td>
<td>Complete course</td>
</tr>
<tr>
<td>Industry Certification (IC)</td>
<td>Earn passing score on exam and/or complete licensure</td>
</tr>
<tr>
<td>Note: An IC could count for additional EPSO credit.</td>
<td></td>
</tr>
<tr>
<td>Please refer to the ESSA Industry Certification</td>
<td></td>
</tr>
<tr>
<td>Conversion Chart for full details.</td>
<td></td>
</tr>
<tr>
<td>International Baccalaureate (IB)</td>
<td>Complete course and attempt exam</td>
</tr>
<tr>
<td>Local Dual Credit</td>
<td>Complete course and attempt exam</td>
</tr>
<tr>
<td>Statewide Dual Credit</td>
<td>Complete course and attempt exam</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other Indicators of Readiness</th>
<th>Evidence of Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>American College Testing (ACT)</td>
<td>Earn a composite score of 21 or higher</td>
</tr>
<tr>
<td>Armed Services Vocational Aptitude Battery (ASVAB)</td>
<td>Earn a score of 31 or higher*</td>
</tr>
<tr>
<td>Armed Forces Qualifying Test (AFQT)</td>
<td></td>
</tr>
<tr>
<td>Scholastic Aptitude Test (SAT)</td>
<td>Earn a composite score of 1060 or higher</td>
</tr>
<tr>
<td>WorkKeys National Career Readiness Certificate</td>
<td>Earn an NCRC level TBD by earning aligned scores on the</td>
</tr>
<tr>
<td>(NCRC)</td>
<td>three WorkKeys exams: Applied Math, Graphic Literacy, and</td>
</tr>
<tr>
<td></td>
<td>Workplace Documents</td>
</tr>
</tbody>
</table>

*Students must earn a minimum ASVAB AFQT score required to qualify for admission into at least one branch of the military as of June 1 following a student's graduation in order to demonstrate military readiness for the indicator. Future years’ scores may change based on needs of the U.S. Department of Defense (DOD). Scores will be determined on June 1 annually for the following year's accountability.

The department is continuing to gather feedback on the implementation plan and plans to release final business rules in November 2018. For additional information, please email TNED.Accountability@tn.gov.
Ohio’s Career-Technical Assurance Guide (CTAG) System

Ohio’s CTAG system provides the opportunity for learners to earn postsecondary credit within each career pathway as well as a seamless credit transfer process. Learners who complete specific CTE courses at approved secondary providers and pass a statewide end-of-course assessment have that technical credit availability information automatically communicated to public postsecondary institutions in the state. These credit transfers — described in the 45 currently available CTAGs — occur when learners matriculate to a public Ohio postsecondary institution. Within those 45 CTAGs are 136 Career-Technical Assurance Numbers, which are the aligned postsecondary course equivalents.

The state has invested in this system since its creation in 2005 to identify critical career technical competencies and be able to embed college credit opportunities within each career pathway. In FY20, 43,617 learners met the enrollment and end-of-course assessment criteria for CTAGs. Those learners who enroll in a public state postsecondary institution are eligible to have the aligned postsecondary technical college credit awarded to them.

Over the past 15 years, the state has significantly streamlined the CTAG credit transfer process to make it as seamless as possible for learners, schools and colleges. The postsecondary institutions in the state provide information on how the course is delivered on the college level and establish a common set of outcomes. The state then looks at the related secondary course for competencies that align with the identified set of outcomes. The end-of-course assessments specifically test for those identified competencies, with secondary and postsecondary instructors writing the test questions collaboratively. This process results in an “assurance” that secondary CTE learners who pass the end-of-course assessment will be awarded free postsecondary credit based on the CTAG agreement. This college credit is transferable to any public postsecondary institution in the state based on the CTAG name, which prevents transfer credit from being counted as elective credit. The CTAG system serves as a verification of knowledge to ensure that the postsecondary and secondary courses are at the same level of rigor and that learners in Ohio experience seamless transitions between secondary and postsecondary education.

Learners who complete specific CTE courses at approved secondary providers and pass a statewide end-of-course assessment have that technical credit availability information automatically communicated to public postsecondary institutions in the state.

A strong partnership between the Ohio Department of Education (ODE) and the Ohio Department of Higher Education (ODHE) enabled much of the state’s innovation within this system. Over the past two years, the state has developed an online data system that transfers test scores from the ODE learning management system to the ODHE learning management system. The CTAG reports go directly to postsecondary registrar offices and indicate the qualifying credits. As such, learners do not have to manage paperwork, removing that barrier entirely. The ways learners receive acknowledgment of credit vary by institution, but typically
learners are notified of their credit through their school email, academic advising or the application process. The improved data sharing helped solidify the longevity of the CTAG system. Before this data system was built out, sharing data between secondary and postsecondary and even tracking overall learner success was challenging. Now that this infrastructure is in place, Ohio will be able to report more data on the rates of learners using the credits earned.

Strong relationships between secondary and postsecondary institutions — and support from state agencies — were key to the success of creating CTAGs. Ohio maintained funding for Tech Prep when funding was cut on the federal level, which allowed Tech Prep coordinators to remain within community colleges and maintain their role as intermediaries between colleges and local districts. Additionally, Ohio provides support to implement this system at the local level. When new CTAGs are created, postsecondary and secondary instructors have professional development opportunities to discuss the content and rigor of the courses.

The CTAG system was written into several state policies and is aligned to the state’s priorities, further ensuring its longevity. After the CTAG system was created in 2005, Ohio built it into its Carl D. Perkins Career and Technical Education Act of 2006 (Perkins IV) plan. In 2010, the state shifted toward a career field and pathway structure with end-of-course assessments, which further enabled it to build out the CTAG system. The CTAG system is also outlined in state legislation and was most recently written into Ohio’s Perkins V plan. Ohio continues to prioritize its fiscal investment in this system to ensure that the assessments are free to schools and learners and that the credit earned is free to the learner.

Ohio’s Policy in Action at the Local Level

Lorain County Community College (LCCC) prioritizes aligning its courses with the CTAG system. The college continually looks at its courses and redesigns them when necessary to align with CTAGs. Currently, CTAG courses exist within every postsecondary career pathway so that learners coming from Ohio high schools have the greatest opportunity to earn college credit. LCCC makes submitting course materials, including learning outcomes and syllabi, for CTAG approval easy for faculty. The college reviews the submissions with faculty to ensure that no pieces are missing, and then it submits the information in the state’s online system on behalf of the faculty. This support that the college provides to the faculty ensures that courses are submitted correctly and approved.

LCCC also provides critical feedback to the state through a number of mechanisms. LCCC encourages faculty to sit on panels organized by the state so that LCCC faculty can become familiar with CTAGs and affect the development of course outcomes for new CTAGs. ODHE also shares CTAG Compliance Reports with all University System of Ohio schools ahead of time so that the institutions can address missing items before the reports are finalized. Having this extra step for collaboration has built trust between ODHE and LCCC and made the college want to continue to prioritize aligning its courses with CTAGs. The number of learners at LCCC that are awarded CTAG credit continues to increase, from 54 learners in 2015 to 172 learners in 2019.
Utah’s Concurrent Enrollment Program

Utah’s concurrent enrollment program has been in place for more than 35 years and was formally established in state policy in 1988. Over the past three decades, Utah has continually redefined and improved its concurrent enrollment program to ensure quality and expand access for learners. Learners in the program receive both high school and college credit that corresponds to first-year coursework at any institution in the Utah System of Higher Education (USHE), which includes eight public colleges and universities and eight technical colleges. USHE also develops regional articulations throughout the state as needed. In most instances, learners take the concurrent enrollment courses at their high school. In some rural areas, instructors travel from colleges to high schools to make concurrent enrollment courses more accessible to learners. The state keeps a master list of all courses that are approved for concurrent enrollment credit. These courses are also embedded within each CTE career pathway chart. Every CTE pathway includes at least one, if not more, concurrent enrollment course options.

In the 2019–20 school year, learners earned 90,249 CTE credits, and CTE courses made up 28 percent of the total concurrent enrollment credits earned in the state.

To support local capacity, Utah identified eight CTE planning regions that include secondary, postsecondary and workforce partners. Through Perkins V, these regions are required to meet quarterly to coordinate activities and curriculum, assess industry needs for CTE programs and identify potential certificate and degree programs that could be developed or strengthened within the region. At a minimum, seven out of the eight meet monthly. Part of their charge is to support concurrent enrollment opportunities within their regions. The state also provides funding for courses, and

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### LEARNER PARTICIPATION IN CONCURRENT ENROLLMENT OPPORTUNITIES ACROSS UTAH HAS INCREASED

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Students Who Participated</th>
<th>Number of Credit Hours Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(total distinct headcount)</td>
<td></td>
</tr>
<tr>
<td>2018-2019</td>
<td>38,907</td>
<td>285,710</td>
</tr>
<tr>
<td>2019-2020</td>
<td>43,916</td>
<td>323,749</td>
</tr>
</tbody>
</table>

+11.4% +11.7%
some agencies made funding available through competitive grants for secondary and postsecondary institutions to develop programs of study that include concurrent enrollment.17

Much like Tennessee, Utah also built concurrent enrollment into both its ESSA and Perkins V accountability systems. Utah’s Readiness Coursework indicator, introduced in ESSA and modified for Perkins V as an additional indicator of program quality, measures the percentage of high school learners who earned credit, with a C grade or better, in concurrent enrollment, International Baccalaureate or Advanced Placement — or in the case of the Perkins indicator, earned an industry-recognized credential.

Utah’s focus on continuous improvement over the past three decades is paying off. For the past five years, learner participation in concurrent enrollment opportunities across Utah has increased. It grew by 11.4 percent from the 2018–19 school year to the 2019–20 school year, and the number of credit hours earned by learners increased by 11.7 percent during this same period.18 The state is also seeing positive data with regards to learners experiencing low income attending postsecondary institutions. For the 2018 graduating high school class, the college-going rate of learners experiencing low income who participated in concurrent enrollment was more than twice that of learners experiencing low income who did not participate.19

Utah’s Policy in Action at the Local Level

Utah’s commitment to concurrent enrollment translates to the local level, where learner access and equity are priorities to increase participation in the program. The longevity of the program in the state also has resulted in institutionalized partnerships among individual school districts and postsecondary institutions. At Herriman High School in Jordan School District, for example, concurrent enrollment high school teachers typically have a liaison professor at a postsecondary institution to collaborate with on curriculum.

Jordan School District described in its Perkins V local application the efforts it is making to increase access to concurrent enrollment opportunities for CTE learners. This work is done through a strong partnership primarily with Salt Lake Community College (SLCC) as well as a few other local postsecondary institutions. SLCC offers more than 90 concurrent enrollment courses, many of which are in CTE. Each high school in the district chooses which of these courses to offer based on teacher qualifications. The low cost of $5 per credit hour at most schools makes the opportunities more attainable for learners experiencing low income.

SLCC has also implemented initiatives to make the concurrent enrollment courses cater to learners with special population status. The college recently held an annual multi-cultural conference; hired bilingual and diverse learner advisers; and introduced new concurrent enrollment offerings such as Intro to Ethnic Studies, which focuses on providing a framework for analysis of discrimination and prejudice in the experiences of people of color, fostering cross-cultural communication and enriching individual cultural identity.
**Major Considerations**

EPSOs provide learners early access to college credit that makes postsecondary education more accessible, affordable and relevant to learners’ lifestyles. These proven programs rely on prioritizing partnerships and alignment between secondary and postsecondary education systems to provide seamless transitions for learners. There is a growing need for EPSOs to be provided in every career pathway so that all secondary learners can be given the opportunity to get a head start on their postsecondary education and for those postsecondary credits to be fully transferable to related degree programs for both academic and technical credit. Tennessee, Ohio and Utah have made critical investments in this work that enabled their respective programs to continue expanding, improving and withstanding transitions.

Although each state has unique strengths and challenges, some common attributes among these long-standing programs emerge:

- **Credits consistently articulate into postsecondary career pathways across the state.**
  To prevent “random acts of dual enrollment,” both general education and technical EPSO credits should be consistently transferred into career pathways at any state public postsecondary institution to shorten time to degree for learners and ensure that credits are not lost in the transition from secondary to postsecondary. States might consider prioritizing the development of EPSOs for career pathways that do not currently offer these opportunities and expanding statewide articulation agreements to ensure that learners can take those earned credits with them to multiple institutions.

- **Institutionalized partnerships align systems and enable buy-in and trust.**
  Often, EPSOs exist based on local agreements between districts and local postsecondary institutions. Having these opportunities available on a statewide level and transferable between all public institutions takes long-standing partnerships with continued dedication to systems alignment. This work requires effective and institutionalized partnerships between state agencies, with support and input from local institutions and districts. For example, states might consider developing standing feedback loops such as faculty councils for postsecondary partners to provide input on competencies and advisory committees with representation from all institutions involved in the state to coordinate and align efforts to scale EPSOs and increase postsecondary access.

- **Robust, but streamlined, state policy must be in place to build EPSOs into career pathways.**
  Having strong state policy in place that ensures EPSOs are consistently embedded within career pathways can provide accountability mechanisms and incentivize positive outcomes, but it is also necessary to build coherence across state and federal plans. States might consider looking across existing policies to identify redundancies, inconsistencies or gaps across and within programs and policies as well as developing strategies to align state policy with existing priorities so that all policies — state and federal — are pointing in the same direction.
Incentives from the state level to fund EPSOs help remove financial barriers for learners. Funding for EPSOs varies from state to state and typically is supported through a combination of state and federal sources and investments from learners’ home districts and from learners themselves. Continued financial investments from the state are critical for all stakeholders, especially to prevent major costs from falling to learners and to secure postsecondary buy-in so that providing EPSOs is not viewed as losing potential tuition for the institution.

Equity must continue to be prioritized. Research shows that learners of color, learners experiencing low income and first-generation college learners benefit the most from EPSOs. Therefore, it is imperative that barriers to access these opportunities, such as grade point average requirements, administrative paperwork, the cost of credit or tests and transportation, be removed for these populations to ensure equity. On the local level, targeted outreach to learners from special populations and strong advising systems help increase learners’ knowledge of EPSOs so that they may decide to take advantage and reap the benefits of them.

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