





Building A Vision For Early Postsecondary Opportunities















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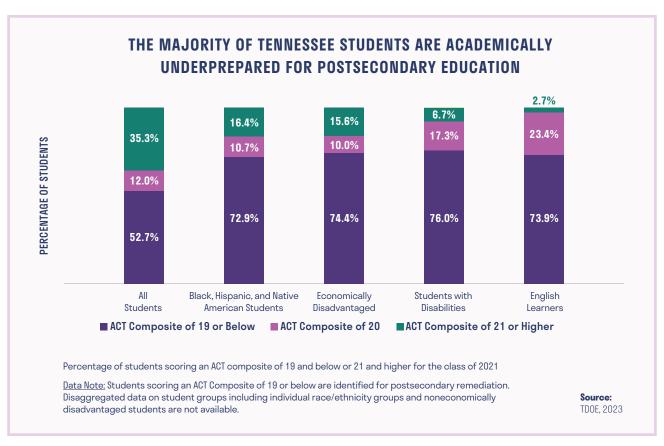
INTRODUCTION

Early postsecondary opportunities (EPSOs) are an important part of Tennessee's strategy to ensure high school students are prepared to enroll, persist, and find success in postsecondary education, career, and life. Research consistently shows that earning a degree or credential is an important step toward achieving high-wage employment and economic independence. Tennesseans who complete postsecondary education earn, on average, one and a half times more than individuals with only a high school diploma.1 Moreover, the health of Tennessee's economy increasingly depends on having access to a highly skilled labor force. Providing students with rigorous and workforce relevant academic preparation in high school is essential to ensure more students attain the postsecondary credentials necessary to meet the needs of Tennessee employers.

Over the last three years, the pandemic has significantly disrupted the work of schools in Tennessee. Long-

standing gaps in academic preparation persist, and pandemic-related disruptions made preparing students for postsecondary education and the workforce even more challenging. According to the ACT's college readiness benchmark, the majority of Tennessee high school students are academically underprepared for postsecondary education. Achieving a composite score of 19 or below on the ACT signals a potential need for academic remediation upon entry to higher education, which could increase the cost and time needed to earn a degree.² Concerningly, Black, Hispanic, and Native American students, as well as students from economically disadvantaged backgrounds, are more underprepared than their White and noneconomically disadvantaged peers. Over 70 percent of students from these groups are achieving a 19 or below on the ACT. A composite score of 21 or higher signals that a student is academically ready to meet the demands of college-level coursework.

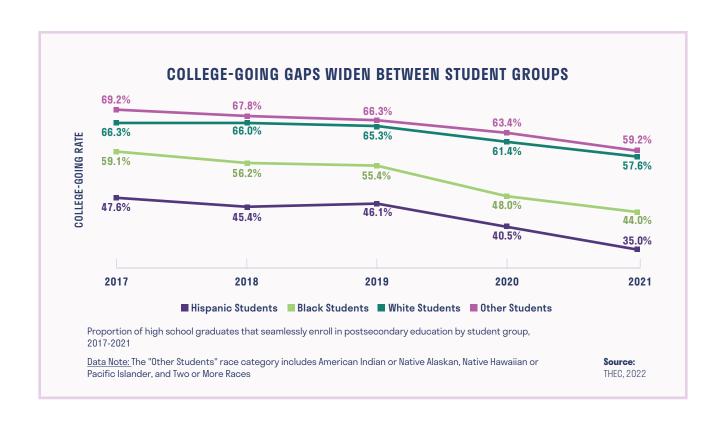




The pandemic has also accelerated the decline in Tennessee's college-going rate, which measures the percentage of students who enroll in a technical, two-year, or four-year college in the fall after high school graduation. The state's college-going rate has been declining since 2015, and the most precipitous decline has occurred since 2019. According to the Tennessee Higher Education Commission, the state's overall college-going rate for the Class of 2021 dropped to 52.8 percent, a 9-percentage point decline between 2019 and 2021. Most alarmingly, this decline had a disproportionate impact on Black and Hispanic male students. The college-going rate for these student groups declined to 38 percent and 30 percent, respectively.

Early postsecondary opportunities are courses or exams that provide students with the chance to earn postsecondary credit while in high school. Districts may build their own portfolio of EPSOs from the eight

available options shown in the chart but are required to make at least four different EPSO opportunities available to students.³ Aside from helping students earn postsecondary credits while still in high school, EPSOs may also benefit students by familiarizing them with collegelevel academic expectations and rigor, as well as helping them build the skill and confidence needed to succeed in postsecondary education.4 In the summer of 2021, SCORE conducted focus groups with TN Promise-eligible high school graduates to better understand challenges related to summer melt, the phenomenon of collegeintending students not enrolling in college the fall after high school graduation. According to these students, their feelings of being unprepared to succeed in collegelevel coursework were key contributors to summer melt. Therefore, participation in EPSOs may play a role in helping mitigate summer melt and ensure students are equipped to seamlessly enroll in college during the fall after high school graduation.



EARLY POSTSECONDARY OPPORTUNITIES IN TENNESSEE

NAME	DESCRIPTION	PROVIDER	STUDENT FEES AND ASSISTANCE	POSTSECONDARY CREDIT ELIGIBILITY	POSTSECONDARY CREDIT AWARDED
Advanced Placement (AP)	College-level high school courses offered in multiple subjects; nationally recognized exams	The College Board	Exam fees College Board and state assistance for low-income students	Score on AP exam	Determined by institutions; awarded upon matriculation
Cambridge International Exam (CIE)	High school academic programs; internationally recognized exams	Cambridge International	Exam fees State assistance for low-income students	Grade in Cambridge AS or A-level subject	Determined by institutions; awarded upon matriculation
College-Level Exam Program (CLEP)	Nationally recongized exams used to assess college-level knowledge; exams offered in multiple subjects	The College Board	Exam fees	Score on CLEP exam	Determined by institutions; awarded upon matriculation
Dual Enrollment (DE)	Postsecondary course taught at the institution, high school, or online; student enrolled in the institution	TN Postsecondary Institutions	Course tuition, fees, books Dual Enrollment Grant (lottery scholarship)	DE course completion; passing grade	Credit awarded on postsecondary transcripts upon course completion — can be tranferred
International Baccalaureate (IB)	Academically challenging course of study offered at the high school level; internationally recognized exams	International Baccalaureate	Exam fees State assistance for low-income students	Score on IB SL or HL exam	Determined by institutions; awarded upon matriculation
Local Dual Credit (LDC)	High school course aligned to standards at local postsecondary institution; optional exam for credit at institution	TN Postsecondary Institutions	Exam fees	Score on challenge exam at or above cut score	Credit accepted at partnering institution; students notify registrar upon matriculation
Statewide Dual Credit (SDC)	High school course aligned to state postsecondary standards; required challenge exam for credit at institutions	TN Dept of Education	No cost to students	Score on challenge exam at or above cut score	Credit accepted at all TN institutions; students notify registrar upon matriculation
Industry Certification (IC)	Assessment by an independent certifying entity based on standards for knowledge, skills, and competencies	Industry	Exam fees	Score on IC exam	Determined by postsecondary institutions

Over the last several years, Tennessee has started to strengthen EPSO access and alignment by taking the following actions:

- Expanding funding and access to dual enrollment (DE) courses: In addition to increasing the financial aid to cover the cost of up to five DE courses, Tennessee has also expanded access to more students by lowering the cumulative GPA continuing eligibility requirement for the grant from 2.75 to 2.0.
- » Expanding access to Advanced Placement (AP) Courses: Since its launch in spring of 2021, the AP Access For ALL program has expanded access to numerous AP courses, especially in the state's underserved rural regions.
- » Strengthening alignment of K-12 programming to higher education and the workforce: The 2022 Innovative School Models grant provides middle and high schools the opportunity to reimagine how to strengthen their EPSO offerings and support to better prepare students for postsecondary education and the workforce.

To build on these important efforts and ensure more students are prepared to enroll and succeed in postsecondary education, practitioners and policymakers alike must better understand the current state of EPSO participation, success, and practice in Tennessee. Key questions to answer include:

- » What are the trends in EPSO participation across the state?
- » What are the barriers to EPSO participation?
- » To what extent are students succeeding in EPSO courses and on EPSO exams?

- » What are the main barriers to success in EPSOs?
- » What promising practices are districts and schools using to expand EPSO participation and success?

To begin answering these questions, the SCORE team collected and analyzed data from several sources, including:

- » Publicly available data: Tennessee Board of Regents Data Dashboard; Tennessee Department of Education 2022 Ready Graduate Report; and national and statelevel AP data from the College Board.
- » District survey: SCORE sent an EPSO survey to all 147 Tennessee school districts. Responses were collected from 39 districts whose enrollment makes up approximately one-third of the state's total high school enrollment
- **» District interviews:** SCORE conducted a total of seven interviews with leaders across four districts of varying sizes.

Available data were limited, and additional data are ultimately needed to better understand participation and success trends across EPSO opportunities. Data for EPSOs other than community college dual enrollment, Advanced Placement, and statewide dual credit are notably lacking. Whenever possible, the SCORE team used survey and interview data to deepen our understanding of the available public data, as well as fill in the gaps resulting from unavailable data.

Looking at EPS0 access and participation, success, and practice, this report will analyze the current state of EPS0s in Tennessee and offer key questions and recommendations to guide the future work of strengthening EPS0 participation and student success in Tennessee.





EARLY POSTSECONDARY OPPORTUNITIES: WHAT RESEARCH SAYS

Research suggests that participation in EPSOs can be an effective strategy for improving postsecondary preparation, enrollment, and persistence.⁵ Much of the current research on the impact of EPSO participation focuses on AP and DE. Participating in AP and DE is generally linked to increased high school graduation rates, college matriculation, first semester of college GPA, college persistence in the first year after enrollment, and college completion.⁶ Despite these positive effects of EPSOs, participation rates in AP and DE are inequitable.

Availability of school resources, students' economic backgrounds, and race are influential factors in DE and AP participation. Compared to traditional courses, AP

and DE are "resource intensive" because their effective implementation requires informed counselors, teachers with additional training, and course materials. As a result, AP and DE compete for resources and affect each other's enrollment rates. Large suburban schools located in states with clear mandates are most likely to offer DE and AP options.

Access to advanced coursework does not directly translate to participation in these courses. White students and students from high socioeconomic status (SES) backgrounds are the most likely to participate in DE.⁹ Conversely, students from low SES backgrounds are less likely to take advantage of multiple EPSOs options,





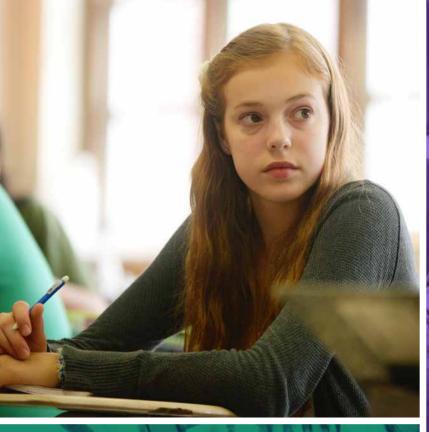




potentially due to cost barriers and a lack of effective advising.10 In sum, schools with high levels of poverty might have resources to offer AP and DE courses, but without intentional policies to support enrollment, those schools tend to have wider racial gaps in both AP and DE participation.11

Regardless of ACT scores, gender, race, and SES, students who complete at least one DE in high school and enroll full-time in community college are more likely to complete their associate degree than those who do not complete any DE in high school.¹² Dual enrollment participation has a positive effect on both enrollment and completion at community colleges and four-year institutions.¹³

In Tennessee community colleges, students with prior experience with DE have higher retention rates compared to those without.14 In one study focusing on the effects of all EPSO enrollment and students' outcomes at a particular Tennessee community college, EPSO participants who continue at the community college where they earned credits, have higher community college graduation rates compared to their peers who did not participate in EPSOs. Most notably, this finding applied regardless of gender, Pell Grant eligibility, and at-risk status.¹⁵









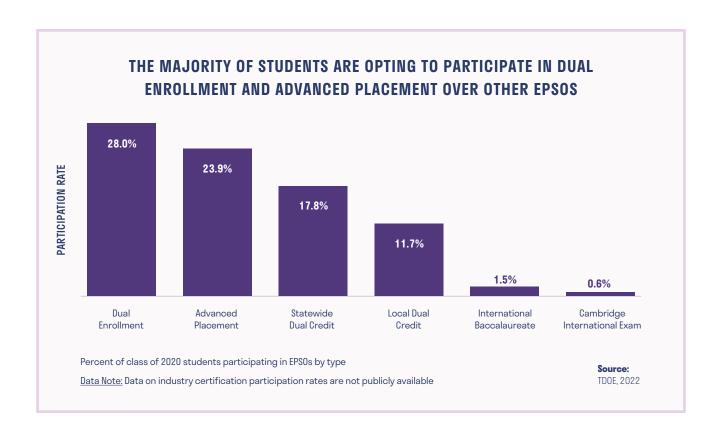
EPSO ACCESS AND PARTICIPATION

Trends In EPSO Participation

Overthe last five years, Tennessee has continued to expand students' access to early postsecondary opportunities. Students graduating from high school in 2018 were the first cohort able to qualify for Ready Graduate status by participating in EPSOs. Notably, five EPSOs, including Cambridge, Advanced Placement, International Baccalaureate, local dual credit, and statewide dual credit, saw an increase in their participation rates for the 2019 and 2020 high school graduate cohorts. ¹⁶ Although the percentage of students participating in dual enrollment stayed the same across the 2018, 2019, and 2020 graduating cohorts, it remained the EPSO with the highest level of participation. This positive trend suggests that the

update to the Ready Graduate indicator was a helpful tool for encouraging districts to expand students' access to a variety of EPSOs.

The most recent statewide data available to compare participation rates across EPSO offerings comes from 2020. Statewide participation rates are highest for DE, followed by AP, statewide dual credit, and local dual credit. Cambridge and International Baccalaureate have the lowest participation rates. Information on participation in the College Level Examination Program and industry certification exams is not available.

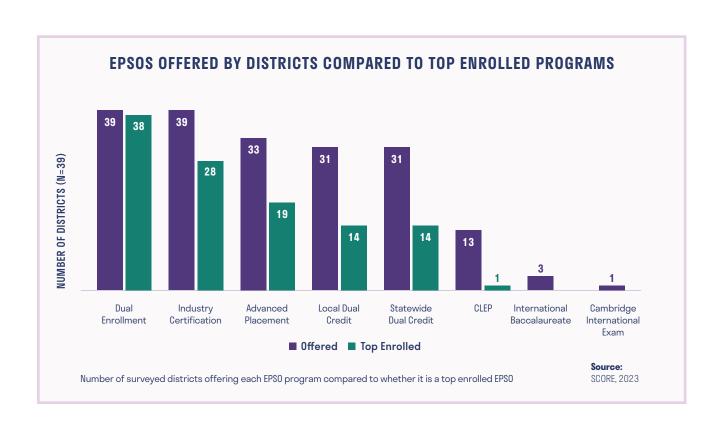


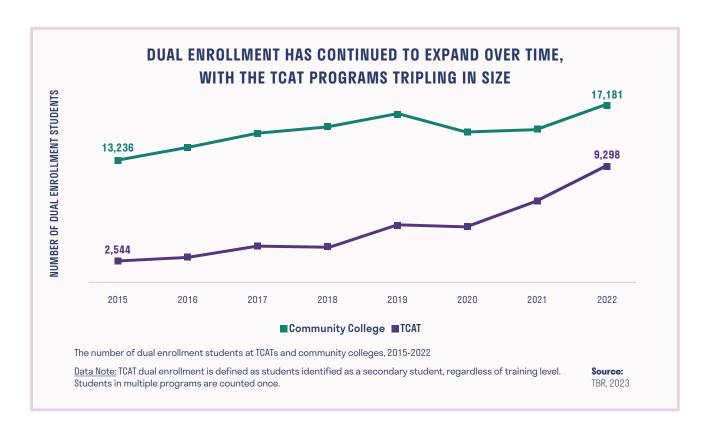
The information regarding EPSO offerings and participation collected from districts' survey responses is similar to the above data but also indicates the importance of industry certifications to districts' portfolio of EPSOs. All 39 districts responding to the survey offer dual enrollment and industry certification opportunities. Advanced Placement is the next most offered EPSO, with 35 districts indicating it is part of their portfolio of offerings. Thirty-two districts reported offering statewide and local dual credit. In terms of participation, districts said DE, industry certification, and AP are the EPSO offerings with the highest participation.

Although most of the recent statewide EPS0 participation data comes from 2020, Tennessee College of Applied Technology (TCAT) and community college dual enrollment participation data from 2022 is publicly available. According to these data, both kinds of dual enrollment participation have increased significantly over the last seven years. Since 2015, the number of students participating in TCAT dual enrollment courses has more than tripled. The majority of students participating in TCAT dual enrollments are in five programs: welding technology, automotive technology, farming operations, cosmetology, and machine tool technology.¹⁷

Despite notable pandemic-era drops in participation in 2020 and 2021, over 17,000 students participated in dual enrollment at community colleges in 2022, a nearly 30 percent increase since 2015. These trends highlight the positive impact of Tennessee's policies to expand access to dual enrollment courses. Although four-year colleges and universities also partner with high schools to provide DE opportunities, data are not available regarding how many students are participating in these kinds of opportunities.

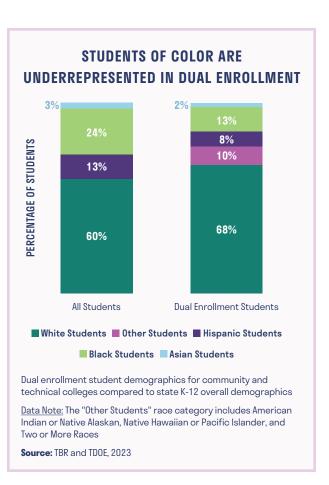
Dual enrollment participation at community and technical colleges varies by race. As the graph indicates, Black and Hispanic students are underrepresented in terms of their participation in DE courses. Black students make up 13 percent of all dual enrollment students, despite accounting for 24 percent of the total high school population. Similarly, Hispanic students make up 8 percent of all DE students although they account for 13 percent of the total high school population. Alternatively, White students are overrepresented in terms of their participation in DE courses. These students account for 68 percent of all dual enrollment students but only make up 60 percent of the total high school enrollment.





Data on participation in different DE courses reveal important differences by race. Thirty-seven percent of all dual enrollment students take General Education English, making it the top enrolled DE course. Often referred to as a "gateway" course, General Education English is a credit-bearing course required for all programs of study. It is the top enrolled course for White and Hispanic students. Alternatively, the highest enrolled course for Black students is an elective course. This trend is driven by DE students at Southwest Tennessee Community College participating in a first-year success course. 18

While the data indicate that DE participation varies by race, statewide data also show that participation in community college DE courses is skewed toward higher achieving students with at least a 3.0 GPA. Seventy-four percent of community college DE students across the state have a cumulative GPA of 3.5 or higher. Ninety-three percent of students have a GPA of 3.0 or higher. Many of these students are likely to enroll in college regardless of their participation in a dual enrollment course. This data is important to consider as districts continue to find ways to expand participation in dual enrollment to students who may be less likely to enroll in college after high school graduation.



Barriers To EPSO Participation

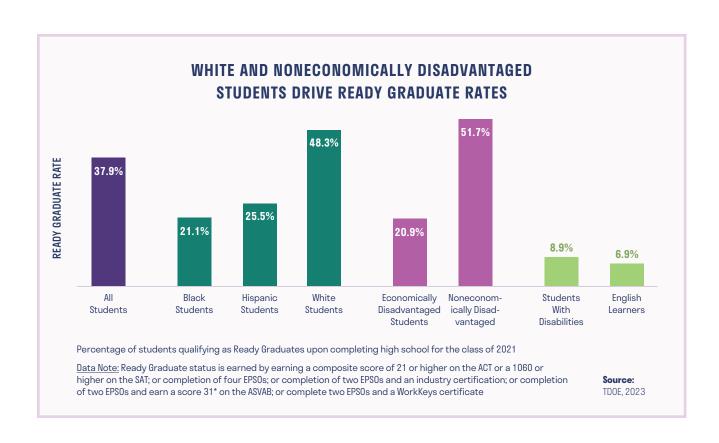
Although significant strides have been made to expand access to early postsecondary opportunities, the data highlight persistent racial gaps in access and participation. In addition to the DE data examined here, Ready Graduate data from the Tennessee Department of Education suggest several gaps that could be closed by expanding participation in EPSOs. Overall, just under 40 percent of high school graduates from the Class of 2021 achieved Ready Graduate status. Eighty-seven percent of these students qualified by scoring a 21 or above on the ACT. Notably, Black and Hispanic students achieve Ready Graduate status at approximately half the rate of White students.

What factors help explain the racial gaps in DE participation and Ready Graduate status? What are some of the barriers to expanding EPSO participation to more students and increasing Ready Graduate rates? District leader interviews and survey data reveal four barriers and opportunities for increasing Ready Graduate rates: awareness and communication, advising practices, scheduling and operations, and affordability.

Awareness And Communication

Awareness of EPSO opportunities and communication about EPSOs and their benefits were mentioned across interviews with district leaders as barriers to expanding participation in EPSOs. One leader noted that school principals and counselors are not always fully equipped with the knowledge of all EPSO opportunities. "It's been just recently that I've been able to keep dual enrollment, dual credit, straight as what is what," the leader explains. "There's so much volume of information that gets pushed out, particularly to counselors and from all different directions."

Depending on the school, staff may have more knowledge about a particular EPSO, such as dual enrollment, and less about others. As a result, they may not be able to share this information effectively with students and their families. Other leaders noted that district and school communication to students and families about EPSOs and their benefits varied widely across the high schools in their districts in terms of content, method, and frequency.





Some district leaders also noted students' perceptions of particular EPS0 offerings only being for a certain type of student was also a barrier to expanding participation in these courses. Regarding dual enrollment, one leader shares, "I think [some students] have a little mindset issue. For some reason, they think dual enrollment is for the smart kids [who are] going to college." The leader goes on to share that his district needs to do more to share the benefits of participating in dual enrollment, especially for students who are "skeptical of postsecondary, and getting away from home."

Advising Practices

Inconsistent advising practices may be another barrier to expanding participation in EPSOs. Although most district survey responses indicate that student interest and GPA are the top two factors used to identify students to take DE and AP courses, interviews with district leaders suggest how these factors are used by school counselors and other staff within and across high schools varies considerably. "Some years we have more kids in dual enrollment, so it varies by year, by principal, by philosophy, by the teachers you have on staff," explains one district leader.

Even when district policies are in place to expand access to advanced coursework, there may still be inconsistencies operationalizing these policies at the school level. For example, one leader explained that the district has implemented a policy that automatically enrolls students in advanced coursework unless the student formally opts out. However, at the school level, there is not a standard system in place for opting out. As a result, how this system is implemented and managed is largely dependent on individual school counselors and staff.

Leaders also shared that large counselor caseloads increase the likelihood of inconsistencies and inequities in the advising process. Noting that counselors may be responsible for advising and scheduling 350 to 500 students, one leader shared, "We get bogged down just getting the work done and not necessarily looking at it. I'm not saying that's right, but it's a lot."

In other cases, leaders noted that counselors may be unaware that they are prioritizing certain groups of students over others when it comes to enrolling them in early postsecondary opportunities. The way to address this issue, one leader explains, is to collect and share data with school and district staff to highlight and correct inconsistencies and inequities in the advising processes. "Now that we have [data] ... there's multiple eyes on it. So multiple people can elevate that to go, 'Hmm. Why is it like this, you know?' And the challenge is going to be to push ... to create equitable offerings and access."





Scheduling And Operations

Scheduling and operations also have a major impact on access and participation, particularly for smaller high schools. According to survey responses, 21 districts indicated scheduling had a significant impact on their EPSO offerings. Interviews with district leaders confirmed this finding. During interviews, leaders noted several scheduling-related challenges that are not necessarily unique to EPSO courses but nonetheless impact their ability to offer them. First, leaders mentioned the challenge of identifying a minimum number of students to create a full section of a course in a timely enough manner to find or allocate a teacher for the course. Student interest in a particular course can fluctuate from year to year. Depending on the timing of an individual school's scheduling process, it will be under significant pressure to identify an existing staff member or hire a new staff member to teach a particular EPSO course.

Second, leaders mentioned identifying and allocating classroom space for EPSO courses as a barrier. Even when students may be taking an online course, consideration must be given to identifying a computer lab or library space to host them. Third, leaders also noted the general challenge of figuring out how to fit EPSO courses into the master schedule. All these challenges are particularly acute for smaller high schools, given the staffing and resource constraints they may be facing.

Affordability

Affordability of EPSO exams is another barrier to expanding participation for some districts. While the expansion of the state's dual enrollment grant to cover up to five

courses has generally helped expand access to DE, the costs associated with AP, local dual credit, and industry certification exams can be prohibitive for students in districts that do not have funding in place to reduce or subsidize these costs. One district leader estimated that half of the students enrolled in an AP course do not end up sitting for the exam because of affordability concerns. This leader explained the importance of students being able to take the exam this way: "It's really great for them to have the experience of taking a college level exam ... having that rigorous coursework. Being able to sit for a college-level exam can really make the difference, can build students' self-esteem and their experience. Then the next time, when it's a higher stake exam for them, they're going to feel comfortable doing that."

Although more investigation is needed to fully understand the impact of exam costs on participation in EP\$0s, it is reasonable to assume that a student's inability to sit for an exam due to cost could negatively impact their future participation in EP\$0s. Students may feel discouraged from participating in another EP\$0 if they already know they will not be able to afford the exam. Likewise, counselors could be less likely to enroll students in AP and other EP\$0 offerings that include exams if they know students will not be able to afford them.

Aside from DE, students are required to sit for an exam for the EPS0 to count toward the Ready Graduate indicator. Therefore, it is clear that exam fees are barriers to some districts increasing their Ready Graduate rates. In the future, consideration should be given to providing additional funding opportunities to allow districts to reduce the cost of EPS0 exams for students.

EARLY TECHNICAL COLLEGE AT TCAT

In partnership with TCAT-Dickson, the Clarksville-Montgomery County School System (CMCSS) launched an Early Technical College (ETC) four years ago. The ETC provides 11th- and 12th-grade students the opportunity to meet requirements for high school graduation while also participating in dual enrollment courses in one of five pathways: diesel-powered equipment technology, HVAC/refrigeration, industrial electrical maintenance, pharmacy technology, and prepractical nursing.

Students enrolled in the ETC take all classes on the Clarksville campus of TCAT-Dickson. CMCSS provides students with transportation to the campus, eliminating a significant potential barrier to participation in the program. Students complete regular high school coursework each day using an online platform. Learning lab teachers are available to provide one-on-one support to students in specific subject areas, as needed. Afterward, students participate in TCAT coursework from 2:30-5:30 p.m. Students also can participate in internship and jobshadowing opportunities with local employers.

Close collaboration between CMCSS and TCAT leaders continues to be essential to the success of the Early Technical College. TCAT uses dual enrollment funding to hire instructors for the ETC. Any remaining instructor costs are covered by CMCSS. A formal memorandum of understanding allows CMCSS and TCAT to share student-level data and ensures ETC students can seamlessly enroll at TCAT as adult learners after graduation.

Starting this year, CMCSS began using the interest and aptitude data provided by the YouScience assessment to identify current 10th graders who may be a good fit for the ETC. After reviewing this assessment data, a designated advisor meets with targeted students individually to share information about the Early Technical College and answer any questions.

Key Takeaways: EPSO Access And Participation

- » Over the last decade, participation in EPSOs has expanded considerably. Dual enrollment and Advanced Placement are the top EPSOs in terms of participation. While state-level data about participation in industry certification exams are not available, survey responses from districts indicate it is a top EPSO in terms of participation.
- » Available data suggests racial gaps in dual enrollment participation at community and technical colleges. Black and Hispanic students are underrepresented in DE participation compared to White students. They are also enrolling in less impactful courses compared to White students. Data regarding participation in DE at four-year universities is not publicly available.
- » Ready Graduate data suggests that more must be done to increase EPSO participation, especially among Black, Hispanic, and economically disadvantaged students. Of high school students from the Class of 2021, 39.7 percent achieved Ready Graduate status. Most students are earning this status by achieving a 21 or above on the ACT. Moreover, White and noneconomically disadvantaged students are driving current Ready Graduate rates.
- » According to district leaders, several factors impact schools' efforts to expand participation in EPSOs. These factors fall into four categories: awareness and communication, advising practices, scheduling and operations, and affordability.









EPSO SUCCESS

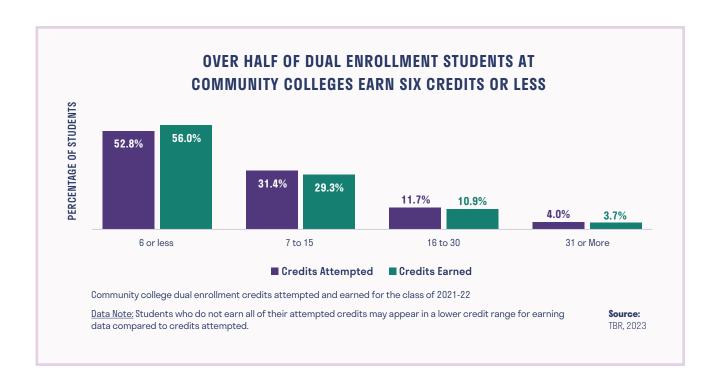
To what extent are students succeeding in early postsecondary opportunities? How does success in EPS0s vary by race? District survey responses and district leader interviews discussed here suggest some answers to supplement the limited publicly available data on EPS0 success. Moving forward, Tennessee must publicize data about participation and success rates for all EPS0s on an annual basis to support the evaluation of individual EPS0 offerings on student success.

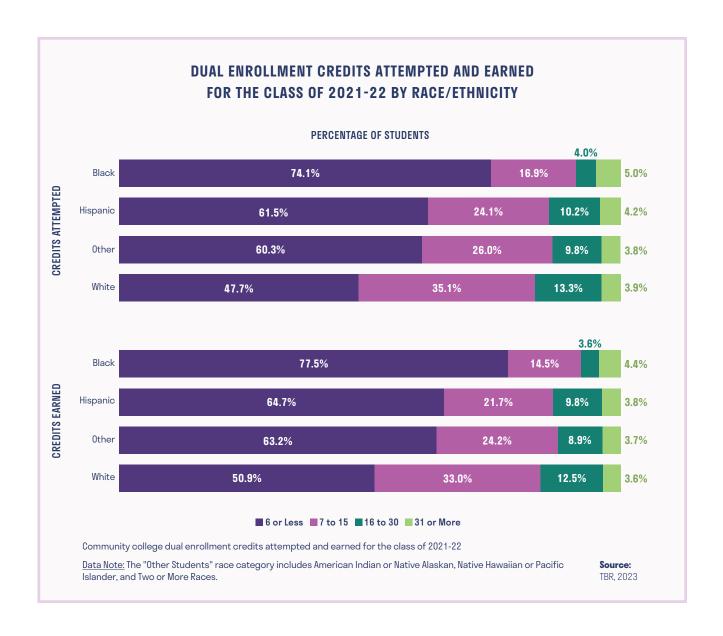
Dual Enrollment

Dual enrollment can help students earn postsecondary credit in high school and shorten the time and cost of attaining a degree if they enroll in college. Students must earn a passing grade in a DE course to earn postsecondary credit. One dual enrollment class is typically equivalent to three college credit hours. Sixty credit hours are required

to earn an associate degree. Data from the Tennessee Board of Regents show that most community college DE students attempt and earn six credit hours or fewer while in high school. Since the state's dual enrollment grant will cover the cost of up to five courses, the data indicate that many students are missing out on an opportunity to earn college credit for free.

Just as there are racial gaps in dual enrollment participation, there are similar gaps in DE credit attainment at community colleges. Compared to White students, Black and Hispanic students take fewer DE classes and earn fewer college credits. As the graph shows, 77.5 percent of Black students earned six or fewer dual enrollment credit hours compared to 64.7 percent of Hispanic students and 50.9 percent of White students. Thirty-three percent of White students earned seven to fifteen credit hours compared to 21.7 percent of Hispanic students and 14.5 percent of Black students.





Although data on credit attainment are useful for measuring success in DE courses, there are limitations to what we can learn from these data. For example, we do not have information about *how* students who earned dual enrollment credits performed in their courses. Without information about the percentage of students passing a given course with an A, B, C, or D grade, it's hard to gain a deeper understanding of how performance in DE courses translates to success in college. Questions for future research should include:

» Which dual enrollment courses are most aligned with postsecondary enrollment and success?

- » How do students who meet different performance bars in their dual enrollment courses perform in college?
- » How do students who earn dual enrollment credits but perform poorly in the courses fare in terms of postsecondary enrollment and success?

Data on the number of DE students earning an associate degree or certificate while still in high school offers additional insights. Currently, very few community college dual enrollment students are earning these awards prior to high school graduation, though the number has been increasing over time. From 2013 to 2022, a total of 1,624

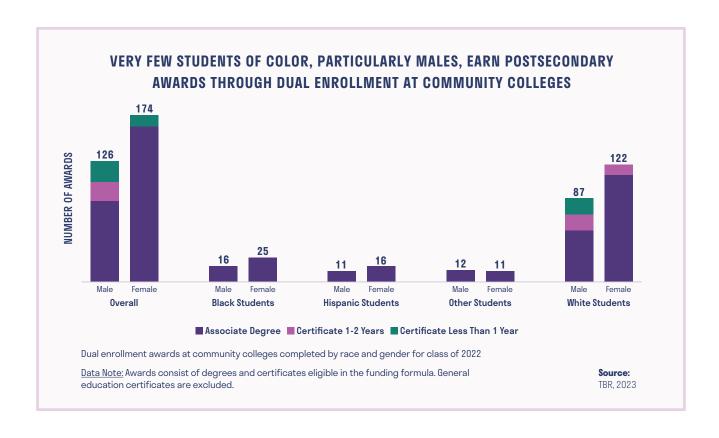
awards were earned by dual enrollment students. Of these awards, 1,168 were associate degrees; 141 were one- or two-year certificates; and 315 were certificates that take less than one year to earn. The number of associate degrees awarded has grown from 18 in 2013 to 246 in 2022. 19 It's likely this growth is being driven by the expansion of middle college programs that specialize in providing high school students the opportunity to earn an associate degree while still in high school.

Both Black and Hispanic students are underrepresented in terms of the total associate degrees awarded, with Black male students earning 5 percent of all degrees and Black female students earning 8 percent. Hispanic students earned 10 percent of the awarded associate degrees. Notably, both Black and Hispanic DE students did not earn any certificates.

The data on postsecondary awards earned through dual enrollment present several important considerations. First, the data again confirm the importance of districts and high schools expanding Black and Hispanic students' participation in early postsecondary opportunities. Middle college and early technical high school programs, in particular, should consider strategies for improving how they enroll and support Black and Hispanic students.

Second, the data confirm that earning a degree or credential through dual enrollment courses while also meeting the state's high school graduation requirements is difficult to accomplish. As Tennessee continues to expand DE opportunities through TCATs and community colleges, consideration should be given to the importance of students having the chance to earn an associate degree or certificate while still in high school. To what extent should this be a goal to measure the success of dual enrollment programs? If this is not a realistic goal, then, on average, what is the minimum number of postsecondary credits a student should be expected to earn through dual enrollment courses? Depending on the answers to these questions, districts will need guidance to navigate how to expand DE participation and success while also ensuring students continue to meet the state's graduation requirements.

Third, the lack of publicly available data regarding university dual enrollment makes it challenging to gain a complete picture of the postsecondary awards earned through DE. Strong consideration should be given to finding ways to make this data more widely available to help district and higher education leaders assess the impact of their dual enrollment programming.

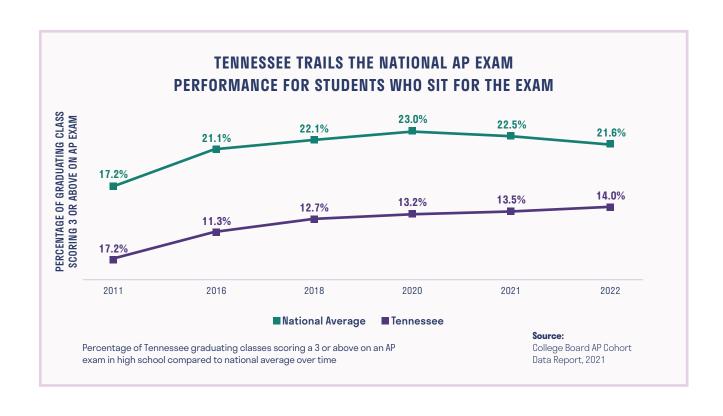


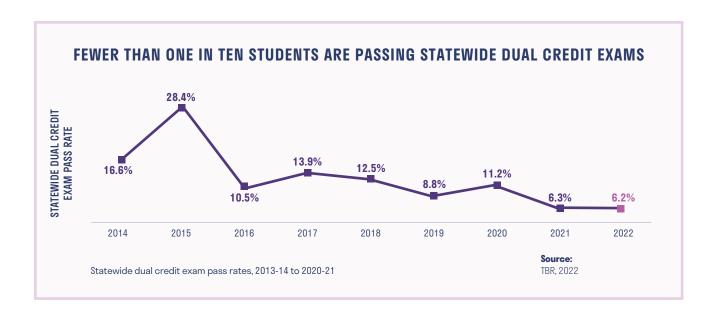
Advanced Placement

Advanced Placement data for Tennessee students, though limited, provide another source of information about EPSO success in Tennessee. AP students must earn a qualifying score on the spring course exam to earn college credit. Although each college sets their own policy for accepting AP credits, most require students to achieve a 3 on the course exam. According to data from the College Board, the percentage of Tennessee high school seniors scoring a 3 or above on an AP exam has increased from 8.5 percent in 2011 to 13.5 percent in 2021. Despite this growth, Tennessee continues to trail the national average of 22.5 percent. When just looking at the students who sat for an AP exam, the percentage of high school students in Tennessee earning a 3 or higher is 52.3 percent. This number also trails the national average of 58.5 percent.²⁰ This shows that in addition to increasing the percentage of high school students who enroll in AP, we must also work to increase their success rates.

Tennessee's AP Access For ALL program offers additional insight into student success in AP courses. Launched for the first time during the 2021-2022 school year, the AP Access For ALL program is a new and important effort to expand access to rigorous coursework. The program provided access to 15 online courses to over 1,200 students across 90 percent of Tennessee's school districts during its first year of implementation. Of the 15 courses offered, psychology was the top-enrolled course with 187 students, followed by statistics with 88, and environmental science with 85. Nine-hundred-sixtynine students, or 79 percent of total participants, took the spring exam for their course. More than one-quarter of those sitting for the exam were ninth- and tenth-grade students.

In terms of success, 34.8 percent of AP Access For ALL students who took the exam for their course scored a 3 or higher, while 56 percent scored a 2 or higher. Research suggests that scoring a 2 on an AP exam can still have a positive impact on future success in other AP courses, as well as introductory-level college courses.²¹





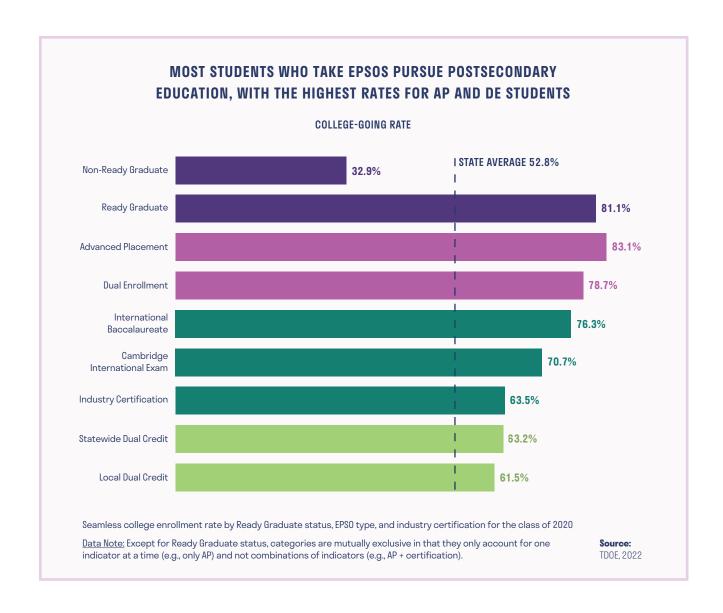
Statewide Dual Credit

Statewide dual credit courses require students to pass a challenge exam developed by college faculty in order to earn college credit. Credits earned through statewide dual credit can be transferred to any public institution of higher education in Tennessee. As participation in these courses has surged recently, success rates on the challenge exams have simultaneously declined. During the 2017-2018 school year, students took about 10,000 challenge exams with an overall pass rate of 12.5 percent. The number of exams taken during the 2021-2022 school year increased to over 48,000, but the overall pass rate declined to 6.2 percent. Of the 11 statewide dual credit courses, precalculus has the highest pass rate at 18.4 percent, followed by criminal justice at 18 percent and business at 15.6 percent. Plant science has the lowest pass rate at less than 1 percent, followed by world history at 1.8 percent and speech at 4.3 percent. Notably, only two courses — business and world history — have seen their pass rates increase since the 2019-2020 school year. Pass rates for business increased by over 14 percentage points during this time, while those for world history increased by nearly a percentage point.²² Moving forward, there is an urgent need to examine why so few students are passing statewide dual credit exams that would yield them college credit.

EPS0s And Postsecondary Enrollment

How does participation in early postsecondary opportunities impact success after high school? The data needed to answer this question are currently limited to overall college-going rates for students participating in EPS0s. Additional information — such as postsecondary persistence and completion rates, as well as future earnings data — is needed to offer more complete answers to this question. This information can be found in the state's P20 longitudinal data system.

Most students participating in early postsecondary opportunities enroll in postsecondary education during the fall after high school graduation. According to data for the high school class of 2019, students participating in Advanced Placement and dual enrollment courses have the highest college-going rates of all EPS0 participants at 83.1 percent and 78.7 percent, respectively. Students participating in IB and Cambridge have the next highest college-going rates, while those participating in industry certification, statewide dual credit, and local dual credit have the lowest college-going rates of all EPS0 participants.



Barriers To Success In EPS0s

What are the barriers to success in early postsecondary opportunities? Interviews with district leaders suggest several answers: the need for a shared vision for EPSO success; limited academic supports; and the need for stronger advising and support during the summer.

A Shared Vision For EPSO Success

Leaders' interview responses touched on the challenge of creating a shared district vision for EPSO success that balances the need to expand participation in rigorous coursework with the importance of ensuring students earn postsecondary credits or certifications that will serve them well after high school graduation. District

teams are trying to answer several questions related to strengthening their vision for EPSO success, including:

- » To what extent should success be measured by participating in EPS0s and gaining exposure to rigorous coursework versus earning postsecondary credits or certifications?
- » How many postsecondary credits earned during high school, on average, would indicate success?
- » Are there particular industry certifications that are better indicators of success than others?

One district leader touched on some of these questions when he explained the differences between how his district and some of its schools define success in Advanced







Placement courses: "We have to refine our understanding of success in these AP courses. We've had school leaders who have said, 'If you don't pass with a 3 or higher, then you're not successful in that course,' when really we don't agree that that's our understanding of success. We have to shift to our understanding of success as accessing [a] rigorous course with supports, and then sitting for that external exam."

Leaders also shared two ways the current Ready Graduate indicator makes aligning their districts around a shared vision for EPS0 success more challenging. First, the current system for measuring Ready Graduate status incentivizes participating in EPS0s rather than achieving success in them. In most cases, Ready Graduate only requires students to participate in an EPS0 course or exam rather than earn the postsecondary credit. As a result, school staff may focus on getting a student to participate in EPS0s without giving enough consideration to how the EPS0 fits with their aptitudes and interests or the potential for the student to be successful in the opportunity. This tendency is seen most clearly with statewide dual credit, a popular EPS0 offering with very low success rates.

Second, some district leaders noted a potential mismatch between state policies and initiatives, such as the state's new funding formula, the Innovative School Models grant, and the new Industry 4.0 diploma distinction that promote participation in career and technical pathways, and the current Ready Graduate indicator that serves as an important public accountability metric for districts. The Ready Graduate indicator, according to these leaders, seems to prioritize students who are on a two- or four-year college trajectory. For example, one leader explained that many students interested in industry certifications may

not be interested in participating in other EPSO offerings, making it difficult for them to earn Ready Graduate status. Additionally, since students cannot qualify for Ready Graduate status by participating in work-based learning and preapprenticeship programs, one leader wonders, "Do we have enough opportunities for students who maybe aren't the students who would take AP or dual enrollment? It's not because they can't do that. It's maybe because that's not where their interest is."

The absence of a clear vision for EPSO success deeply impacts the ability of districts to set goals, as well as implement policies and practices to ensure all students can access and succeed in the EPSOs that best match their aptitudes and interests. Ultimately, district leaders want to meet the mark when it comes to increasing their Ready Graduate rates while also ensuring that students are set up for success after high school graduation. In the future, several questions should be considered to help guide how to revise the Ready Graduate indicator to reflect a vision of success that balances access and success in EPSO opportunities:

- » How can the Ready Graduate indicator be revised to acknowledge participation and success in EPSO opportunities?
- » How can different policy tools such as Ready Graduate, TISA (Tennessee Investment In Student Achievement), and the Industry 4.0 diploma distinction — work together effectively to encourage EPSO participation and success for all students?
- » How might revising the Ready Graduate indicator impact district practices, especially those related to EPSO offerings and student advising?

Limited Academic Supports

District leaders indicated that study habits and academic preparation in reading and math are top barriers to success for students enrolled in EPS0s. Of the 39 districts responding to the EPS0 survey, 30 indicated study habits as a top barrier to success in a dual enrollment course; 19 cited academic preparation in reading; and 12 cited academic preparation in math. Interviews with district leaders confirmed these factors as barriers. As one leader shared during an interview, distance learning during COVID deeply impacted students' academic preparation and study habits. "Kids have gotten away from knowing how to study, knowing how to read and write, and apply what they've learned. It's going to take us a few more years to get kids over that hump."

Notably, leaders also indicated academic supports for students participating in EPSOs are limited and vary depending on the instructor of the course. Some leaders mentioned schools provide Advanced Placement students with supplementary study resources from the College Board. Other leaders shared that the implementation of AVID elective courses for ninth- and tenth-grade students is one strategy schools are using to help students develop the academic habits and skills they will need to succeed in advanced coursework as eleventh and twelfth graders.

In terms of dual enrollment courses, the instructor's expectations for what students should already be able to do at the start of the course may play an important role in determining whether students receive additional instruction to address gaps in academic preparation and study habits. One district leader shared that instructors provided by the local community college often expect a greater level of maturity and skill from high school students than is realistic. This leader also expressed the need for stronger collaboration in future with their higher education partners to ensure college instructors have the training necessary to ensure students can succeed in rigorous coursework.

According to district leaders, online courses present unique challenges when it comes to addressing gaps in students' academic preparation and study habits. One leader highlighted how taking an online course exacerbates the existing challenges students may have with time management and organization when she shared,

"Time management is always a struggle when you're not sure how to sort of lay things and get yourself organized." The extent to which a school can embed support into online classes depends on its schedule and the capacity of its staff. Noting that only one of their several dual enrollment college partners is able to send an instructor to their schools, this same leader explained the challenge this way: "If you have an online class and you just have like five kids doing this class and five kids [doing another] class, you may put them all in the library and the librarian is in charge of them. And that's not always the best scenario. We're kind of stuck with staffing sometimes. Whether it's AP Access For ALL or dual enrollment or whatever it might be, those students need to be put [with] a content area teacher aligned with the course they're taking."

Moving forward, districts and schools will need to strengthen how they address gaps in academic preparation and study habits. As one leader shared, "If we want to improve this, we're going to have to build [more academic supports] into the school day."

Stronger Advising And Summer Support

The need for stronger advising and support during the summer to help recent high school graduates seamlessly transition to postsecondary education is another barrier shared by district leaders. One leader said students "are not continuing on their pathway after high school graduation," despite participating in dual enrollment courses at the local TCAT and local community college. Acknowledging some of the challenges students face during the summer after high school graduation, this same leader shared his districts plans to "build a bridge from graduation to fall enrollment" by using grant funds to hire a coach who will work with TCAT-bound students during the summer months and connect them to resources to overcome transportation and financial challenges.

Another leader noted the trend that many students in his district are participating in dual enrollment through the local community college but not enrolling in the institution after graduation. Postsecondary partners, this leader shared, can "lean in" even more during the summer months to ensure more of these students enroll as full-time students in the fall after high school graduation.

Key Takeaways: Success In EPS0s

- » Most dual enrollment students attempt and earn six credit hours or fewer while in high school. Compared to White students, Black and Hispanic students take fewer dual enrollment classes and earn fewer college credits.
- » Overall, very few dual enrollment students are earning degrees or certificates prior to high school graduation. Black and Hispanic students are underrepresented in terms of associate degrees and certificates earned through dual enrollment.
- » Tennessee's Advanced Placement success rates trail national averages. The success rates for students in the state's AP Access for ALL program trail the rates of other AP students. However, limited data make it difficult to compare the success rates of these two groups of students.

- » Most students participating in early postsecondary opportunities enroll in postsecondary education during the fall after high school graduation. But just under 25 percent of students who participate in community college dual enrollment enroll at a community college in the fall after high school graduation.
- » Interviews with district leaders suggest several barriers to student success in early postsecondary opportunities, including the lack of a clear vision for EPSO success, the need for more academic supports, and stronger advising and support during the summer to ensure students make a successful transition to postsecondary education.













EPSO PRACTICE

During interviews with district leaders, the SCORE team also asked about key early postsecondary practices related to instructors, partnerships with higher education institutions, and data. Several themes emerged from leaders' responses. First, instructor availability and training vary across districts and have an important impact on student success. Second, while leaders note the positive partnerships their districts have with higher education institutions, they also share the need for stronger coordination and communication with them. Third, districts need additional data to effectively evaluate the short- and long-term impact of EPSOs on student success.

Instructor Availability And Training

Survey responses and leader interviews reveal that instructor availability varies across districts. Out of 39 districts, 32 indicated using both high school teachers and postsecondary faculty as instructors for their dual enrollment courses. In some cases, districts provide additional funding to a postsecondary institution to cover the cost of an instructor for a DE course. In other cases, districts identify existing teachers who have the desire and qualifications to teach a DE course. Depending on a district's context, students will take their dual enrollment

courses in one of three locations: on their high school campus with a high school instructor, online at their high school campus, or on a college campus with a college instructor.

When faculty from a higher education partner are not available to teach dual enrollment courses, district leaders noted challenges recruiting teachers from their high schools to teach these courses. Often, the existing faculty at a school may lack the content expertise and qualifications to teach DE courses. It can be particularly challenging to find instructors who have industry certifications to teach CTE courses or the advanced degrees necessary to teach traditional dual enrollment courses. In other cases, local policies may be a barrier to recruiting existing staff members to teach DE courses. Leaders from two different districts noted that their district policies do not permit providing current teachers with stipends to teach these courses. As a result, schools in these districts have teachers who are "are eligible, qualified, and would enjoy teaching" dual enrollment courses but may be unwilling to take on the additional responsibilities in the absence of additional compensation.

Aside from the training provided to Advanced Placement teachers, leaders indicated that training for EPSO





instructors is limited and varies by school. In contrast to the formal training AP teachers receive through the College Board's AP Summer Institutes, instructors for other EPSO courses may only receive limited training. In the case of dual enrollment, formalizing and delivering ongoing training is made more challenging by the number of DE partners and the variation in type of instructors that often exist across schools in a given district.

As one leader explains, "Who the teacher is really matters" to the success of EPSO courses. As districts continue their work to expand EPSO participation and success, they must prioritize ways to recruit and train instructors across EPSO offerings. At the state level, consideration should be given to making more resources available to support these efforts.

Higher Education Partnerships

Across interviews, leaders commented on positive partnerships with higher education institutions. One leader described her district's positive relationship with their local TCAT, especially when it comes to enlisting their help to implement new ideas and strategies. "[TCAT] bends over backwards to help make [our] ideas become a reality," the leader explains. "They are awesome to work with."

The number of higher education partnerships existing across a district often makes it challenging to manage them effectively. One leader shared that there are at least eight higher education institutions partnering with their district's high schools. Each partner has its own policies regarding requirements to participate in dual enrollment and how credit earned in high school is counted. While the district office helps individual high schools with setting up their partnerships, each school is responsible for managing their own partnerships. This "free for all" system often makes it challenging for schools to strengthen their collaboration with a given institution of higher education. It also makes it difficult for district leaders to monitor the overall effectiveness of their partnerships.

One district leader shared that it is difficult to know which DE courses are being offered by all the different institutions of higher education across the state. This makes the master scheduling process each spring more difficult for schools. To better enable schools to expand and diversify their dual enrollment offerings, the state should consider publishing the DE offerings and requirements for each TCAT and public two- and four-year college in the state.

Data

Across interviews, leaders consistently mentioned using several types of data to evaluate their EPS0 offerings, including participation rates, exam pass rates, and Ready Graduate rates. The depth of districts' analysis of this data, including looking at participation and success rates by student subgroup, varied based on the size of the district and their staff capacity. While districts have some capacity to evaluate the impact of EPS0 participation after a cohort of students have graduated, their ability to track EPS0 participation and Ready Graduate status in real time is limited. Leaders noted the need for stronger data systems to centralize and track this data more effectively.

Access to National Student Clearinghouse (NSC) data varies across districts. According to survey responses, 19 out of 39 districts confirmed having access to this data. Eight districts reported not having access to NSC data while twelve districts were unsure of their access to this data. While the survey did not include questions about how districts use their NSC data, the interviews with leaders suggest that it varies considerably across districts. Larger districts with research departments can do more analysis linking NSC data to EPSO participation.

Leaders expressed interest in collecting and using data to better understand how EPSO participation impacts students' future success. Some of the questions leaders wanted to answer include:

- » How does participation in different EPS0s impact college enrollment, persistence, and completion?
- » To what extent does achievement on state assessments predict success in particular EPSOs?
- » How does achievement in middle school predict success in high school coursework?

In many cases, leaders indicated the data needed to answer these questions were missing or not easily available. Some districts also lack the staff capacity to answer these kinds of questions.

Leaders also highlighted the need for additional data, such as future wage earnings, to measure the impact of EPSO offerings on outcomes other than college enrollment and completion. "We're driving toward college-going because there are no other metrics to measure other options," explains one district leader. "If we want to drive students into [the workforce], then we need a way to measure wages."









HAMILTON COUNTY SCHOOLS

Over the last year and a half, Hamilton County Schools (HCS) has taken several steps to expand EPSO participation and success. After realizing that students' access to EPSOs varied significantly across high schools, HCS partnered with Chattanooga State Community College to launch a microcollege at three target high schools. This program provides students the opportunity to take five dual enrollment courses and earn at least fifteen hours of college credit before high school graduation. Dual enrollment opportunities are offered across five core subject areas, including English, math, science, history, and an elective CTE course. To mitigate the challenge of ensuring dual enrollment students are also on track to meet graduation requirements, HCS has ensured that all DE offerings fulfill core graduation requirements.

In addition to launching the microcollege, HCS improved how it collects and uses data to expand EPS0 participation and success. The district connected postsecondary enrollment and persistence data from the National Student Clearinghouse to EPS0 participation for the Classes of 2019, 2020, and 2021 to better understand how particular EPS0 courses impact future success. HCS also created an EPS0 dashboard that provides district and school leaders with real-time student-level data regarding EPS0 participation and progress toward Ready Graduate status.

Hamilton County Schools recently hired a full-time EPS0 coordinator who works with district and school leaders to expand EPS0 access, participation, and success. This person has taken the lead on revamping and standardizing how schools code EPS0 coursework in the student information system. The EPS0 coordinator meets regularly with principals and school staff to review data from the EPS0 dashboard and manages the district's postsecondary partnerships.

Key Takeaways: EPSO Practice

- » Districts often face challenges identifying existing staff members with the qualifications needed to teach dual enrollment courses. Local policies that prohibit giving additional compensation to DE teachers make it more difficult to recruit existing faculty to teach these courses.
- » Training for EPSO instructors is limited and varies by school.
- » While district leaders make note of the positive partnerships they have with institutions of higher education, they also note the need for better coordination and communication with them.
- » District leaders need more and better data for all EPSO offerings to effectively evaluate and improve their academic programming.



REVIEW AND RECOMMENDATIONS

Over the last five years, Tennessee has continued to promote and expand access to early postsecondary opportunities. The ability of the first graduating cohort of students to qualify for Ready Graduate status by taking four EPSOs in 2018 was followed the next two years by an increase in participation rates for five EPSO offerings, including Cambridge, Advanced Placement, International Baccalaureate, Local Dual Credit, and Statewide Dual Credit. Participation in dual enrollment at TCATs and community colleges has also increased over the last five years. While dual enrollment at TCATs has tripled during this time span, dual enrollment at community colleges has increased by 30 percent. More recently, the expansion of the state dual enrollment grant and the launch of the AP Access for ALL program will help ensure more students can participate in rigorous coursework in high school that will prepare them to enroll and succeed in postsecondary education.

Despite these efforts, more progress is needed to ensure all students have the chance to participate and succeed in early postsecondary opportunities. Black and Hispanic students continue to be underrepresented in DE participation, credit attainment, and postsecondary awards. AP participation and success rates in Tennessee continue to trail national averages. While statewide dual credit continues to have one of the highest participation rates of all EPSO offerings, pass rates on statewide dual credit challenge exams remain extremely low, meaning that few students can articulate these opportunities into college credit.

Notably, many questions about EPS0 participation and success remain unanswered because publicly available data are limited across all eight EPS0 offerings. While the publicly available data allow us to know the most about dual enrollment at community and technical colleges, there are significant gaps in what we can know about Advanced Placement and statewide dual credit. There are limited data available regarding participation and success for the five remaining EPS0 categories.

As highlighted by leader interviews, districts and schools continue to confront barriers to expanding EPS0 participation and success. In addition to inconsistent advising practices, districts and schools are also confronting challenges related to scheduling, staffing, and academic support. Perhaps most importantly, there remains a need for a clearer statewide vision for EPS0 success.

Given these current successes and challenges, district leaders, practitioners, and policymakers alike should begin considering ways to strengthen EPSO policy and practice to ensure more students are prepared to succeed in postsecondary education and the workforce. These key questions and accompanying recommendations serve as a starting point for future efforts to expand student participation and success in early postsecondary opportunities.







KEY QUESTIONS	RECOMMENDATIONS
How can we increase EPSO access and participation rates?	 » Build on the state's 2023 recurring investment of \$350,000 to reduce EP\$0-related financial barriers for low-income students by providing districts clear guidance on the new investment and considering additional funding opportunities that allow districts to remove financial barriers to EP\$0 exams. » Use available data to conduct a statewide audit of all EP\$0 offerings to better understand which students are taking and succeeding in EP\$0s, as well as the impact of different EP\$0 offerings on students' future success.
How can we increase EPSO success?	 » Ensure all school districts receive access to National Student Clearinghouse data that will allow them to better understand postsecondary enrollment, persistence, and completion trends for their graduates. » Make participation and success data for all EPSO offerings available via an annual EPSO report and/or statewide EPSO dashboard. Include participation and success data for university dual enrollment. » Consider if and how to revise the Ready Graduate indicator to better align with a cohesive statewide vision for EPSOs, as well as other college and career readiness policies.
How can we identify and scale promising EPSO practices?	» Create a detailed dual enrollment partnership guide that includes the full list of course offerings and requirements for each TCAT and public two- and four-year college in the state. Include current policies for how institutions award EPSO credit.







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