Washington CTE Dual Credit Project
Final Report

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Acknowledgements

Introduction to the CTE Dual Credit Project

Dual credit programs allowing high school students to earn college credits have grown from small programs for high-achieving students to enrolling a third or more of students nationwide (Shivji & Wilson, 2019). Washington State is considered a national leader in dual credit, with the College in High School Alliance and Community College Research Center recently featuring Washington programs as exemplars of state policies that support equitable access and success in high-quality dual credit offerings (College in High School Alliance & Level Up, 2019; Mehl et al., 2020). During the 2017–2018 academic year, about 59% of Washington students in grades 9–12 completed dual credit courses, exceeding the national average. The state's largest dual credit program and the focus of this report, Career and Technical Education (CTE) Dual Credit, enrolled nearly 120,000 high school students, about twice as many as the next largest dual credit program, Advanced Placement (Office of Superintendent of Public Instruction [OSPI], 2019c).

Studies have shown that dual credit offers multiple benefits for students, including increasing the likelihood that they will graduate from high school, attend college, and earn a postsecondary degree (Field, 2020; Villarreal, 2017; What Works Clearinghouse, 2017). Advocates emphasize the potential for dual credit to reduce higher education costs for students and families, in part by reducing the time it takes to earn a college degree (Mehl et al., 2020; Villareal, 2017). Although engagement in dual credit nationally varies by family income and race/ethnicity, some studies find that students from traditionally excluded groups may benefit more than other students when they do participate (An, 2013; Taylor, 2015; Zinth & Barnett, 2018). These results suggest a role for dual credit in enhancing education equity, particularly for programs like CTE Dual Credit that exhibit relatively fewer opportunity gaps across student groups (OSPI, 2019a).

The growth of dual credit has brought new opportunities to many thousands of students but has also meant new challenges for institutions, program administrators, and instructors. Effective dual credit programs must balance the policies and practices of two systems—K–12 and higher education—which may be unclear or conflict (Duncheon & Relles, 2020). As dual credit options and the number of students participating have increased, secondary and postsecondary staff need comprehensive and consistent policy guidance and information on effective program practices.

To that end, in 2021 and 2022, the Washington CTE Dual Credit Special Project reviewed CTE Dual Credit policies, documented innovative practices, and compiled information and resources to build stronger and more consistent programs statewide. A key goal of the project was to support equitable student participation and success in CTE Dual Credit, reflecting the vision statement of the Washington State Board for Community and Technical Colleges (SBCTC), which emphasizes racial equity (SBCTC, 2019). The results of this work included a report in June 2021 which included a review of CTE Dual Credit policies and practices and recommendations, a CTE Dual Credit Guidebook, a presentation on research on dual credit policies (with an emphasis on CTE) in other states, a webinar series on CTE Dual Credit practices in spring 2022, a presentation summarizing the findings of a statewide survey of secondary and postsecondary CTE Dual Credit coordinators, and updated versions of the CTE Dual Credit Guidebook and recommendations in June 2022.

The project was supported by Perkins Special Project Grants from SBCTC and led by staff from Seattle Colleges, SBCTC, and OSPI. Following a competitive proposal process, project leads selected a team from RTI International, a nonprofit research institute, to carry out the project's three phases. In addition,

project leads consulted an advisory committee of state and local educators working with CTE Dual Credit programs from around the state to provide feedback throughout the project.

Overview of the Final Report

The 2022 update to the CTE Dual Credit report draws on information collected through the project's two phases (2021 and 2022) examining CTE Dual Credit policies and practices to inform recommendations for OSPI and SBCTC staff. The research included document reviews, consultations with an advisory committee composed of state and local CTE Dual Credit program staff, interviews with dual program staff in Washington and in selected other states, and a statewide survey of CTE Dual Credit coordinators. Where relevant, the report references policies and practices in other states and recommendations from recognized national dual credit experts and organizations. The 2022 version of the report provides an update of the recommendations for strengthening CTE Dual Credit programs that were included in the 2021 version of this report. Although the substance of the recommendations did not change, information collected during 2022 enabled the RTI team to refine and consolidate the recommendations, and suggest short-, medium, and long-term strategies for strengthening CTE Dual Credit policies and programs.

The data collected in 2022 are summarized in two slide presentations that accompanies this report, one focusing on dual credit policies in other states and the other on a statewide survey of CTE Dual Credit coordinators in Washington. The 2021 report is included in the appendix and provides an overview of Washington's dual credit landscape and descriptions of state and federal policies relevant to CTE Dual Credit. These policies shape the local policies and practices described in the three sections that follow: course articulation, program administration, and student experiences. For each topic, the section describes pertinent policies and state agency guidance, local practices drawn from stakeholder feedback, and recommendations for improving policy and/or practice, based on stakeholder input and dual credit program recommendations from national experts.

The information collected in 2021 was supplemented in 2022 by a review of dual credit policies and documentation in Washington and other states, practitioner feedback collected through a series of virtual CTE Dual Credit workshops, and a statewide survey of CTE Dual Credit program coordinators. This information assisted the project team in refining and updating the recommendations developed in 2021. A description of project activities in both years is included in Appendix A.

Recommendations

The *CTE Dual Credit Research Report* from June 2021 included a set of recommendations for CTE Dual Credit programs in Washington. The 2022 recommendations are an update of those developed in 2021 and reflect the new research and practitioner feedback described in the previous section. The team also asked practitioners about their openness to change during the final workshop in the spring 2022 CTE Dual Credit Workshop series. The attendees were asked to rate their willingness to support major changes in CTE Dual Credit systems and processes. Some 59 percent indicated that they were, "Very receptive to major system changes, regardless of local impact," and 31 percent expressed receptivity to "modest or incremental changes." The recommendations reflect practitioners' suggestions, provided through the interviews, workshops, and the CTE Dual Credit survey and input from state agency representatives, examples from other states, and best practices from national organizations.

1. Streamline the CTE Dual Credit Articulation Agreement Process

Although about a third of secondary respondents to the CTE Dual Credit survey indicated that their process for establishing articulation agreements works well, another third identified articulation agreements as an area in which they could use support. Stakeholders shared that the process differs by college, is sometimes poorly defined, and can take many months to complete. Stakeholders suggested the steps below to make the process easier.

Short-term strategy: Address Misconceptions and Clarify State Policy
Secondary and postsecondary CTE Dual Credit program staff identified aspects of CTE Dual Credit programs where more clarity would be helpful. The CTE Dual Credit guidebook addresses some of these issues (e.g., the 80 percent "rule" for articulated course alignment) but is new and outreach, such as conference presentations, is needed to ensure its use. In addition, updates to the SBCTC Policy Manual may also be needed to ensure that the following issues are managed more consistently by colleges:

- *Course eligibility for CTE Dual Credit*: In the CTE Dual Credit survey, more half of secondary respondents indicated that they had not been able to articulate courses in art, business, health science and other fields, limiting dual credit opportunities for students. In most cases, the courses were not articulated for CTE Dual Credit because the college-level course equivalent is eligible for transfer to a 4-year institution, but survey respondents also reported other barriers to articulating classes, such as reluctance to do so on the part of postsecondary faculty.
- *Amount of credit awarded*: Postsecondary institutions determine the number of credits CTE Dual Credit students earn, and stakeholders have encountered inconsistency in the amounts of credits allotted. For example, some colleges offer high school students five credits for a one-semester CTE Dual Credit course, whereas other colleges award five credits for a year-long course. In response to the CTE Dual Credit survey question, "Do your articulation agreements follow the credit conversion standard outlined in WAC 180-51-050 (5 quarter/3 semester college hours = 1 HS credit)?", seventy percent of postsecondary respondents answered yes. Respondents answering "no" explained that one high school course does not always equate to one college course, or reported that their institution bases credit awards on seat time instead.
- *Articulation partnering*: Although not reflected in state policy ([RCW 28B.50.531](#)), some stakeholders reported that colleges have a "right of refusal" for dual credit, meaning that high schools can only articulate courses with colleges outside of their local college's service area if their local college is not willing or able to.

Medium Term: Encourage Postsecondary Faculty Support for CTE Dual Credit

In the interviews, workshops, and survey, secondary and postsecondary CTE Dual Credit program staff reported instances of postsecondary faculty being slow to respond to or objecting to articulation requests. One survey respondent noted, "Professors turn articulations down and do not explain why." In addition, postsecondary faculty do not always communicate course changes in time for secondary instructors to make needed updates. The following steps could help:

- *Conduct focus groups CTE Dual Credit program staff*: Discussions with postsecondary faculty, particularly with faculty who have declined opportunities to offer their courses for CTE Dual Credit, could provide information on their concerns and may generate ideas for addressing them.
- *Communicate about the value of CTE Dual Credit for students, programs, and colleges*: The messaging could address postsecondary faculty concerns identified through the focus groups, and highlight data on credit use and matriculation, as available.
- *Encourage meetings between secondary CTE directors and instructors and college faculty*: When asked about when secondary and postsecondary staff meet to discuss articulation agreements, just over a third of secondary survey respondents selected, "when establishing agreements" and three reported "never." Regular meetings could speed up the establishment of articulation agreements, build trust, and provide a forum for sharing curriculum changes to articulated classes.

Medium-term Strategy: Create a Model Process for Articulation Agreement Development

The CTE Dual Credit survey revealed that establishing articulation agreement processes differ in terms of the responsiveness of the postsecondary partners, the time of year when agreements are initiated, the type and quality of the course documentation shared, and the frequency of renewals. One secondary survey respondent characterized the process as, "2-3 Months of back-and-forth e-mails to sort out the details, waiting for college professors to review information, and waiting for the college to get back to us and then waiting some more, and then waiting even longer, then getting vague information about what to fix if any information at all. Then waiting some more."

The differences and delays are particularly challenging for districts and consortia staff who work with multiple colleges. Dual credit program staff recommended standardizing the following elements of the process:

- Articulation agreement steps and timeline,
- Articulation agreement template,
- Meetings for secondary and postsecondary instructors to align course content,
- Documentation needed for articulation agreements, and
- Templates for key documents, such as course frameworks.

The CTE Dual Credit Guidebook includes an outline of the articulation agreement process and sample templates, but further stakeholder consultations are needed to build cross-college consensus and select among the many options in use. Once a standard or recommended approach has been agreed upon, the CTE Dual Credit Guidebook could be expanded to include an articulation agreement reference guide that lays out the process.

Long-term Strategy: Expand the Number of Professional-Technical Common Courses

Stakeholders believed that expanding common course numbering for professional-technical courses would facilitate the creation of statewide articulation agreements for CTE Dual Credit, reducing the need

for local articulation agreements. A recent national study (Advance CTE, 2022) and this project's review of dual credit policies in other states, however, finds that statewide articulation agreements are less common in CTE than in core academic fields.

A related alternative, common course numbering systems, have been used by some states (such as Florida and Iowa) to facilitate credit transfer in the absence of statewide articulation agreements, and national experts recommend common course numbering for lower division postsecondary courses to facilitate course transfer and articulation. SBCTC has instituted common course numbering for academic transfer courses and some professional-technical courses. As a first step, SBCTC's Common Course Numbering initiative could review the findings of this report and discuss options for increasing common course numbering in support of CTE dual credit.

2. Address Barriers to Student Participation in CTE Dual Credit

Although the CTE Dual Credit project included only limited data collection from students, stakeholders identified multiple barriers to students participating in and fully benefiting from CTE Dual Credit programs. In addition to a need for enhanced advising (addressed in another recommendation), stakeholders highlighted the challenges associated with student/family costs and transcription.

Short-term: Provide Clear Guidance on Students' Credit Eligibility and the Transcription Process
The SBCTC Policy Manual recommends automatic transcription of credits earned through CTE Dual Credit, but this approach is not universal. In the CTE Dual Credit survey, about one-half of postsecondary respondents reported their institution using automatic transcription. Other institutions require addition steps, such as submitting a request or other forms and/or paying a fee. A recent report on dual credit in Washington found that student awareness and use of college credit earned through CTE Dual Credit are low (WSAC, 2019). This finding was supported by the CTE Dual Credit survey. Respondents reported that students and families may not be aware of credits earned and/or do not know how to access and apply them, particularly since the process can vary by college.

Some colleges have instituted outreach strategies to help that might be adopted statewide, such as sending students who have earned credits an unofficial transcript that shows what credits they have accumulated towards which program(s) of study, along with instructions for accessing their transcript if they choose to enroll in another institution.

Medium-term: Eliminate Student Costs for CTE Dual Credit
Washington should explore strategies for eliminating student and family costs for CTE Dual Credit, in line with state and national recommendations. In a 2020 report, OSPI recommends fully covering dual credit costs for students and their families by 2023 (OSPI, 2020), echoing the recommendations of national experts (Mehl et al., 2020; Zinth, 2014a, 2014b). Last year's report from Washington's Dual Credit Task Force found that costs pose a burden for students because financial support is fragmented, not guaranteed, and inconsistent (WSAC, 2021).

Although a recent study comparing student/family costs for dual credit in Washington found relatively lower costs for CTE Dual Credit (OSPI, 2019a), stakeholders interviewed for this study reported that transcription fees as low as $15 can pose a barrier from some students. Some colleges have eliminated these fees to promote equity and access. In the CTE Dual Credit survey, 22 percent of secondary identified fees and other costs as a barrier to students transcribing credits earned through CTE dual

credit. Over half of the postsecondary respondents (which included consortia) reported charging student fees.

Although the five states interviewed for the CTE Dual Credit Project in 2021 charge little or no tuition for dual credit courses, colleges and programs (as in Washington) sometimes do charge fees. To address this issue, some states have instituted statewide scholarship programs to defray or eliminate costs. New Hampshire, for example, allows students to enroll in up to two dual credit courses per year at no charge (Advance CTE, 2022). Washington's 2022 legislative session saw the introduction of SB 5719, which would reduce student and family costs for dual credit earned through College in the High School and Running Start, and eliminate all costs for some students. A similar approach could be used to defray the remaining student/family costs for CTE Dual Credit.

3. Support Equity Through CTE Dual Credit Data Reporting

In 2022, the Washington State legislature passed HB 1867, which expands the data reported on dual credit programs and lays the groundwork for expanded data collection and analysis, including, "…the reporting of data related to application of postsecondary credits earned through a dual credit program towards postsecondary credentials and degrees; and (2) comparison of postsecondary credential and degree attainment between students who did or did not participate in a dual credit program, and between students who participated in different dual credit programs." This legislation addresses the CTE Dual Credit Project's 2021 recommendation to collect statewide data on college credit attained through dual credits and the rate of application of these credits by students to postsecondary degree programs. The following recommendations base on lessons learned from other states will help CTE Dual Credit programs use the data to enhance equity.

Medium-term Strategy: Use Data to Identify Opportunity Gaps
In addition to the disaggregations and analyses proposed by the new legislation, reporting statewide data on CTE Dual Credit by career cluster and location could reveal opportunity gaps. Iowa, for example, developed a "heat map" that revealed that suburban and rural students have greater access to dual credit opportunities than urban students (Iowa Department of Education 2019). Indiana's latest biennial early college credit report similarly identifies differences in student participation rates by county (Indiana Commission for Higher Education, 2021). Unlike Iowa, however, the Indiana report does not include an analysis by CTE cluster or program, which could provide additional clues to explain why participation rates vary, as could an intersectional analysis that disaggregates participation rates by location and student subpopulations.

A 2019 study on dual credit in Washington found participation among low-income students to be higher for CTE than other types of dual credit, which the authors attribute to the program being no or low cost to students (OSPI, 2019a). In addition, student fees are mostly transcription fees paid when students apply to college rather than "up front" fees for participation. Feedback from CTE Dual Credit stakeholders, however, suggests that dual credit access may vary by career cluster and location due to challenges in establishing local articulation agreements or a need for outreach targeted to student subpopulations.

4. Increase Support for CTE Dual Credit Program Administrators

Administrators with responsibility for coordinating CTE Dual Credit programs and the staff that they work with to develop and maintain articulation agreements and support student participation noted a

lack of resources for coordinator positions. These included guidance and materials on administrative practices and policies, and the time needed to complete the work involved effectively.

Short-term Strategy: Create a Centralized Hub for CTE Dual Credit Resources
The CTE Dual Credit project experimented with using Teams as a web-based hub for CTE Dual Credit. Although this platform did not have the functionality needed, an online repository of CTE Dual Credit resources, including the CTE Dual Credit Guidebook, sample articulation agreements, and job descriptions for CTE Dual Credit program staff positions would assist with program management for new and veteran staff. Stakeholders also expressed a need for a CTE Dual Credit coordinator roster to support collaboration, particularly for new staff, that could be addition to or expand on SBCTC's list of consortium websites.

Ideally, state agencies would collaborate to provide resources for all early college credit options on one website and offer a combined master set of FAQs. Iowa, for example, has a webpage and guide covering all types of early college credit (including summer programs and exam-based options).

Short-term: Support Ongoing Collaboration between CTE Dual Credit Program Staff
Veteran stakeholders valued the once- or twice-yearly statewide Tech Prep meetings that were attended by district, consortia, and college representatives. Multiple stakeholders called for more collaboration, either in person or virtual, to share best practices and solutions to common challenges, share local concerns with OSPI and SBCTC staff, and support the development of statewide or regional articulation agreements.

One option would be quarterly or biannual virtual office hours, jointly facilitated by representatives from SBCTC and OSPI. In advance of each office hour, the leads could invite community members to contribute items to a standing agenda that includes:

- State agency updates related to dual credit,
- Discussion time for community members to ask questions, and
- Guest speakers or community members invited to speak on challenging or emerging topics such as ctcLink or student outreach.

Following each meeting, the project leads could post meeting minutes on the SBCTC CTE Dual Credit Webpage (or the CTC Dual Credit Teams site, if maintained) for those who could not attend.

Medium-term Strategy: Increase Funding for CTE Dual Credit Coordinator Positions
Since funding for college-level dual credit coordinator positions ended with Tech Prep in 2011, support for these positions has not kept pace with the growth in the number of dual credit courses and students. Secondary and postsecondary staff reported not having enough time to manage all tasks that CTE Dual Credit programs require. Moreover, high staff turnover, particularly at the postsecondary level, periodically reduces programs' capacity further as new staff are hired and onboarded. As one secondary CTE Dual Credit survey respondent explained, "Due to the lack of funding for the position at the colleges, there is a revolving door of whom to go to at the college to connect with and what current guidelines they are following."

Even with the system upgrades recommended in this report, such as improvements to the process for establishing articulation agreements, staff capacity will likely still limit the availability of CTE dual credit

courses for students. Additional funds are needed to support the staff time needed to administer the programs effectively and reduce turnover among staff members.

5.   Dual Credit Management Systems

The CTE Dual Credit survey included a question that asked, "In which areas do you most need support from OSPI or SBCTC?" At the secondary level, "data and reporting" tied for first with "establishing new articulation agreements;" at the postsecondary level, "data and reporting" was the most popular choice. Information shared by CTE Dual Credit staff in interviews and workshops indicate several needs related to the online systems that colleges and districts are using to manage CTE Dual Credit.

Short-term Strategy: Train CTE Dual Credit Postsecondary Staff on CTE Dual Credit and ctcLink

The launch of Washington community and technical colleges' new administrative software system, ctcLink, was underway during the 2022 phase of the CTE Dual Credit project. Some staff felt that ctcLink could complicate CTE Dual Credit student registration and credit transcription. For example, Olympic College switched from automatically transcribing dual credits to transcription upon student request because of the labor involved. Most felt, however, that they needed more time with the system to understand its impact. As users' familiarity with the system grows, SBCTC will need to explore the role of ctcLink in CTE Dual Credit Program administration and provide training or guidance to mitigate any negative impacts of the transition on CTE Dual Credit students or programs.

Short-term Strategy: Update the Statewide Enrollment and Reporting System (SERS)

Stakeholders identified challenges in working with the SERS system and recommended updates. These include a way for students to verify their system passwords, automated validation for some data fields, extended administrative privileges for college staff, searchable course titles, dates for articulation agreement updates, expanded access to CTE dual credit data, and clear identification of multicourse articulation agreements (additional information on SERS upgrades is on pages 34-35 of this report). Stakeholders also recommended cross-system compatibility with OSPI's Comprehensive Education Data and Research System (CEDARS) to limit duplicate data entry.

Medium-term Strategy: Institute a Statewide System for Dual Credit Course Management

CTE Dual Credit program staff, particularly at the secondary education level, expressed a need for a single, statewide system for administering CTE Dual Credit, noting that the use of multiple systems makes working across colleges more difficult. Ideally, one system would be used by all dual credit types. A common, integrated data collection and reporting platform for dual credit management and data collection—either an updated version of SERS or a new platform—would bring Washington State in line with nationally recommended practice (College in High School Alliance & Level Up, 2019). Using the College in the High School platform for CTE Dual Credit, for example, could house all articulation agreements in one system and could potentially reducing staff training time. The system could also simplify course management and transcription for students who take courses in both programs.

6.   Strengthen CTE Dual Credit Advising

The CTE Dual Credit survey asked respondents to select the most common reasons that students do not pursue or transcribe postsecondary credit for their CTE Dual Credit courses. The most common choice among secondary respondents was, "Lack of awareness of benefits or how credit can be applied to their education," indicating a need for guidance on the relationship between dual credit coursework and students' plans for post-high school education. While some high schools and colleges are adept at

advising CTE Dual Credit students, stakeholders believed that guidance from OSPI and SBCTC is needed to ensure consistent, effective advising statewide.

Medium Term Strategy: Increase Districts and Colleges' Capacity to Provide CTE Dual Credit Advising
Unlike most states, Washington's dual credit policies do not address advising for dual credit students. Kentucky, Ohio, and Oregon, for example, require dual credit students to receive advising on transcription policies, financial aid, and other topics. This recommendation also reflects a recent WSAC report and the advice of national experts, who recommend advising systems that combine guidance on course selection, coordinate advising across education levels, and connect students with tutoring and other supports (Mehl et al., 2020, College in the High School Alliance & Level Up, 2019).

Advising tools might include enhanced programs of study (see the next recommendation) that show how dual credit courses can connect to multiple pathways within a career cluster. Accounting 101, for example, could be applicable to business programs other than accounting, and education majors may have the option to use agricultural CTE Dual Credit to meet natural science degree requirements. Advising on CTE Dual Credit could also be integrated into Washington's required High School & Beyond (HS&B) plan, which begins middle school. In addition, states are linking advising services across the secondary and postsecondary levels. So called "aligned advising" can assist students in their transition to higher education (ESG, 2022), including their awareness and use of dual credit. A recent report on dual credit in Washington also notes a need for dual credit information that reflect the linguistic and cultural diversity of Washington's students (WASC, 2021).

Finally, stakeholders noted that information addressing dual credit's impact on financial aid should also note the potential academic and financial benefits of dual credit, as well as effective ways to minimize risks. In Washington, dual credit has no impact on access to state financial aid programs and most stakeholders agree that the effects on federal financial aid eligibility are small and can often be mitigated. Information about these risks, however, can discourage students and parents from participating, particularly if they are unfamiliar with higher education and financial aid, leading them to forgo the benefits of dual credit on college readiness and costs.

Medium-term Strategy: Support Secondary-Postsecondary Collaboration on Programs of Study (POS)
POS can serve as a useful tool for showing students how CTE coursework (including dual credit) fits into a sequence of secondary and postsecondary courses leading to credentials and degrees. In the interviews and CTE Dual Credit survey, secondary and postsecondary staff described separate programs of study (POS) for each education level. Some stakeholders noted that CTE program staff frequently confuse programs of study with articulation, in part because different individuals are responsible for CTE Dual Credit and meeting *Perkins V* requirements, and because of inconsistent secondary-postsecondary collaboration for POS development. A combined OSPI/SBCTC program of study template and training that includes staff from both education levels could spur the development of POS that span education levels.

In addition, CTE programs receiving funds through the *Strengthening Career and Technical Education for the 21st Century Act* (*Perkins V*) must offer two or more programs of study that include, "non-duplicative sequences of secondary and postsecondary courses within a POS ensure that students transition to postsecondary education without duplicating classes or requiring remedial coursework." State guidance could also advise CTE programs on integrating POS development in the Comprehensive Local Needs Assessments require for local program applications by *Perkins V*, as many states have done.

7. Align and Combine Dual Credit Programs

The review of state dual credit policies revealed that 90 percent or more of dual credit courses that students earn in the five states examined (Colorado, Indiana, Iowa, North Carolina, and Oregon) are earned through a single dual credit program. Fewer dual credit programs could offer a simpler, more streamlined processes for students and parents and reduce the number of resources and training programs needed for dual credit program staff.

Medium-term Strategy: Align CTE and College in the High School Program Policies
To promote greater consistency between dual credit programs, Washington should consider aligning CTE Dual Credit policies more closely with the National Alliance of Concurrent Enrollment Partnership (NACEP) accreditation standards, which College in the High School and about 20 states follow. Some colleges, such as Seattle Colleges, are already take steps to minimize the differences between these two programs in the districts they would with. This step would address some aspects of CTE Dual Credit programs that stakeholders identified as confusing for students and families, such as grading policies that vary by articulating college in the same high school, or when a different grade is required for college credit and taking the next course in a sequence. NACEP requires that "the college/university ensures concurrent enrollment students' proficiency of learning outcomes is measured *using comparable grading standards* … to on campus sections" [emphasis added] (NACEP, 2017). Dual credit programs in other states generally require that students be awarded college credit upon successful course completion (e.g., a passing grade).

Long-term Strategy: Combine Dual Credit Programs
As recommended in 2021, Washington might consider consolidating dual credit offerings into a single statewide dual credit program or ensuring that one program accounts for nearly all dual credits earned, such as Colorado, Indiana, Iowa, North Carolina, and Oregon. In these states, a single set of policies governs student data collection and reporting, student eligibility requirements, program funding, and so on, regardless of whether a course is liberal arts or CTE or whether it is offered at the high school or college campus.

A single dual credit system will need to be paired with efforts to streamline the articulation agreement process because unless more statewide agreements are established, local articulation agreements will continue to be needed for dual credit in most CTE fields.

CTE Dual Credit Project Interim Report

RTI International
Washington CTE Dual Credit Project
June 2021

Overview of The Interim Report

This study is the result of the CTE Dual Credit Project's 2021 phase, which examined CTE Dual Credit policies and practices to inform a set of considerations and recommendations for OSPI and SBCTC staff. The research included document reviews, consultations with the advisory committee, and interviews with state and local CTE Dual Credit program staff. This report summarizes (a) current CTE Dual Credit policy, (b) secondary and postsecondary program practices and barriers to equitable CTE Dual Credit program access and success, and (c) recommendations for state and local policies that address those barriers while supporting best practices. Where relevant, the report references policies and practices in other states and recommendations from recognized national dual credit experts and organizations.[1]

This report begins with a summary of the study's recommendations, followed by an overview of Washington's dual credit landscape and federal and state policy relevant to CTE Dual Credit. These policies shape local policies and practices, which are the focus of the three sections that follow: course articulation, program administration, and student experiences. For each topic, the section describes pertinent policies and state agency guidance, local practices drawn from stakeholder feedback, and recommendations for improving policy and/or practice, based on stakeholder input and dual credit program recommendations from national experts. The report is not intended to be a comprehensive review of local CTE Dual Credit programming but to focus on program aspects highlighted by stakeholders as key to program effectiveness. The findings also informed the development of a CTE Dual Credit guidebook developed concurrently with this report.

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[1] For more information on the research methodology and the project's advisory committee, see Appendices A and B.

2021 Recommendations Summary

The CTE Dual Credit stakeholders consulted for this study recognized the program's many strengths, including the availability of dual credit courses in a wide variety of CTE program areas and the low cost of the program to students. Stakeholders also identified areas where CTE Dual Credit programming could be strengthened and made recommendations for clarifying or augmenting state policy and guidance to promote program quality and consistency.

High-Priority Recommendations

The sections below summarize high-priority recommendations based on feedback from the stakeholders consulted for this report and emerging best practices in dual credit nationally. The evidence and examples underpinning the recommendations can be found in the remainder of this report.

Dual Credit Programs and Policy

1. **Highlight dual credit program differences**: Stakeholders shared that students and families—and even at times district and college staff—lack a clear understanding of the differences between the state's course-based dual enrollment programs. Guidance from OSPI and SBCTC explaining each program's enrollment process and timelines, criteria for awarding of college credit, and credit transcription process could help educators, students, and their families understand how each system functions. Where these topics vary by college or program, a customizable template could help local dual credit staff provide comparable information on the three programs.

2. **Align dual credit program policies**: In addition to clarifying program differences, more consistent policies across Washington's dual credit programs could help students and parents use the programs more effectively and simplify program administration. One option might be to align CTE Dual Credit more closely with the National Alliance of Concurrent Enrollment Partnership (NACEP) accreditation standards, which College in the High School and about 20 states follow.

3. **Clarify state policy and provide guidance:** Local stakeholders expressed confusion about (a) current CTE Dual Credit program policies and requirements, (b) the interpretation of some state policies and guidance, and (c) whether policies from Tech Prep or other dual credit programs apply to CTE Dual Credit. The forthcoming CTE Dual Credit guidebook will help clarify some of these issues, but SBCTC could also address these topics (and correct common misperceptions) in the SBCTC Policy Manual. OSPI could ensure that similar guidance is shared with secondary CTE staff. These areas include the following:

   a. *Policies versus recommendations:* Stakeholders asked whether several common practices in CTE Dual Credit are required (e.g., in state policy) or optional. These include the amount and type (time vs. outcomes or competencies) of alignment needed between secondary and postsecondary courses for CTE Dual Credit articulation and the minimum grade required to earn CTE dual credit.

   b. *Courses eligible for CTE Dual Credit*: State policy indicates that articulated secondary CTE courses are eligible for dual credit, but not all stakeholders agreed that this policy applies to courses that articulate to transfer courses, such as art, business, and some health science courses.

   c. *High school CTE Dual Credit teacher credentials*: Stakeholders agreed that teachers with secondary CTE certification in the field of an articulated course were qualified to teach it. Some stakeholders, however, believed that additional credentials were needed if the

    secondary CTE course was articulated to a course designed for transfer to a 4-year institution.

  d. *Credit awards*: The number of credits a student earns for an articulated course is determined by the postsecondary institution and stipulated in the articulation agreement. Stakeholders indicated a need for statewide or more consistent guidance for how these determinations should be made. For example, some colleges offer high school students five credits for a one-semester CTE Dual Credit course, whereas other colleges award five credits for a year-long course.

  e. *Articulation partnering*: Although not reflected in state policy, some stakeholders reported that colleges have a "right of refusal" for courses that they do not want or cannot to offer for dual credit. The stakeholders further explained that high schools must first seek articulation with their local college and only seek articulations with other colleges if they are "refused."

Course Articulation

4. **Expand common course numbering:** National experts recommend common course numbering for lower division postsecondary courses to facilitate course transfer and articulation. Washington's community and technical colleges have instituted common course numbering for academic transfer courses and some professional-technical courses. Stakeholders believed that expanding common course numbering for professional-technical courses would facilitate the creation of statewide articulation agreements for CTE Dual Credit, reducing the labor needed for local articulation. As a first step, the Common Course Numbering Committee could review the findings of this report and discuss options for increasing common course numbering in support of CTE dual credit.

CTE Dual Credit Data

5. **Update the Statewide Enrollment and Reporting System (SERS)**: Stakeholders noted some drawbacks of the SERS system and recommended updates. These included a way for students to verify their system passwords, automated validation for some data fields, extended administrative privileges for college staff, searchable course titles, dates for articulation agreement updates, expanded access to CTE dual credit data, clear identification of multicourse articulation agreements, and cross-system compatibility with OSPI's Comprehensive Education Data and Research System (CEDARS) to limit duplicate data entry.

6. **Collect statewide data on college credit attainment and use:** A common data system should support the collection of accurate statewide data on the credits earned through CTE Dual Credit and the extent to which students are using the credits to meet postsecondary program requirements. A 2016 report comparing Washington's dual credit programs noted that while enrollments in CTE Dual Credit are high, most students take the courses to meet high school requirements and opt not seek college credit (Washington Student Achievement Council [WSAC], 2016). Data on credit attainment and application could indicate whether students are earning and using the credits available through CTE Dual Credit and help identify programs or districts where students need tutoring or other support to earn their college credit or guidance on using it effectively.

7. **Produce a comprehensive statewide dual credit report**: Accurate and comprehensive data could help SBCTC address stakeholders' interest in an annual public-facing dual credit report

that includes data on CTE Dual Credit. The annual OSPI report cards present dual credit participation data by student demographics, but statewide data by dual credit program type, location, and student demographics, which could help programs flag opportunity gaps, are not publicly reported.

Program Personnel

8. **Increase support for dual credit coordinators:** College-level dual credit coordinator positions were once funded through Perkins. Since then, stakeholders believe that support for these positions has not kept pace with the growth in the number of dual credit courses and student participation. In addition, colleges might consider committing a portion of their coordinators' time to working at and with local high schools. The coordinators could advise students on the applicability or transferability of CTE Dual Credit courses to postsecondary programs, which can be challenging for high school CTE instructors and guidance counselors working with multiple postsecondary institutions, and help coordinate program of study development.

9. **Promote ongoing coordination between CTE Dual Credit administrators:** Veteran stakeholders valued the once- or twice-yearly statewide Tech Prep meetings that were attended by representatives of each consortium or community college. Stakeholders believed that more collaboration, either in person or virtual, would allow program staff to share best practices and solutions to common challenges, offer a platform for OSPI and SBCTC staff to hear local stakeholder concerns, and support the development of statewide or regional articulation agreements. Stakeholders also expressed a need for a CTE Dual Credit coordinator roster to support collaboration and the sharing of information, particularly for new staff. The roster might be in addition to or expand on SBCTC's list of consortium websites. In addition, an online repository of CTE Dual Credit resources, including examples of articulation agreements, articulation agreement timelines, and job descriptions would assist with program management and expansion for new and veteran staff.

Program Costs and Fees

10. **Explore alternatives to student fees**: A 2019 OSPI study found participation among low-income students to be higher for CTE than other types of dual credit, which the authors attribute to CTE Dual Credit being no or low cost to students. In addition, student fees are mostly transcription fees paid when students apply to college rather than "up front" fees for participation. Research affirms that costs to students and families can limit participation in dual credit, and stakeholders consulted for this study reported finding transcription fees as low as $15 to pose a barrier from some students. Although some stakeholders thought that students and families take greater care in choosing and doing well in dual credit courses when costs are involved, other colleges have eliminated these fees to promote equity and access. OSPI recommends fully covering dual credit costs for students and their families by 2023 (OSPI, 2020), echoing the recommendations of national experts (Mehl et al., 2020; Zinth, 2014a, 2014b).

Credit Transcription and Transfer

11. **Provide clear guidance on the transcription process**: A recent Washington Student Achievement Council (WSAC) report and stakeholder feedback suggest that student awareness and use of college credit earned through CTE Dual Credit may be low. Stakeholders observed that some students and families do not know how to access and apply credits earned,

particularly since the process can vary by college, and need guidance. Some colleges, for example, send students who have earned credits an unofficial transcript that shows what credits they have accumulated towards which program(s) of study, along with instructions for accessing their transcript if they choose to enroll in another institution.

12. **Expand Professional-Technical Common Courses**: P/TCCs or "ampersand courses" are courses that can be used to meet program requirements in any Washington community and technical college offering the course and program. Echoing national experts' recommendations, stakeholders observed that P/TCC courses offer greater flexibility for students and reduce the need for local articulation agreements, which can be time consuming to establish and maintain.

Student Advising

13. **Provide clear guidance on the relationship between dual credit and financial aid eligibility**: Stakeholders noted that uncertainty on the impact of dual credit financial aid eligibly might deter students and families, particularly from low-income backgrounds, from participating in dual credit. A clear explanation that programs can post on their websites and guidance for high school and college staff on how all types of dual credit, including CTE Dual Credit, can affect financial aid could help improve the accuracy and consistency of the information provided. Guidance for students and families should also include information on the potential financial benefits of dual enrollment and effective ways to minimize risks.

14. **Indicate dual credit eligible courses in high school course catalogs**: Students and their families are sometime unaware that they are eligible for college credit upon completion of a CTE course, provided they meet the minimum grade requirement. Stakeholders suggested a need for clearer information on which courses offer college credit. Indicating college credit opportunities in course guides or course guide supplements, as already practiced by some high schools, could reinforce information shared by program staff.

Additional Recommendations

In addition to the priority recommendations listed above, stakeholders shared less urgent ideas for improving CTE Dual Credit. These include recommendations that might be considered the step to some of the priority recommendations. In addition, the research team developed a few recommendations to bring CTE Dual Credit in line with national best practice.

Course Articulation

1. **Consistent CTE Dual Credit grade expectations**: Stakeholders indicated that CTE Dual Credit grading policies can be confusing for students and families, particularly when requirements vary by program in the same high school, or a different grade is required for college credit and taking the next course in a sequence. Dual credit policies in other states generally require that students be awarded college credit upon successful course completion (e.g., a passing grade). NACEP requires that "the college/university ensures concurrent enrollment students' proficiency of learning outcomes is measured *using comparable grading standards* … to on campus sections" [emphasis added] (NACEP, 2017).

2. **Encourage secondary-postsecondary collaboration for program of study development**: The *Strengthening Career and Technical Education for the 21st Century Act* (*Perkins V*) requires that programs receiving Perkins funds offer two or more programs of study. Stakeholders noted that CTE program staff frequently confuse programs of study with articulation, in part because

different individuals may be responsible for CTE Dual Credit and meeting *Perkins V* requirements. Stakeholder feedback also suggests that the cross-education level coordination needed for effective program of study development may be inconsistent. OSPI and SBCTC could encourage collaboration by developing common guidance and templates that include advice on addressing programs of study through the Comprehensive Local Needs Assessments required by *Perkins V* and local program applications.

CTE Dual Credit Data

3. **Use a common dual credit data collection system:** In addition to needed upgrades to SERS, a common data collection and reporting platform for dual credit management and data collection across all high schools, districts, and colleges—either an updated version of SERS or a new platform—would bring Washington State in line with nationally recommended practice (College in High School Alliance & Level Up, 2019). Using the College in the High School platform for CTE Dual Credit, for example, could mean housing all articulation agreements in one system, reducing staff training time. The system could also simplify course management and transcription for students who take courses in both programs.

4. **Support the development of an evidence base for local dual credit equity and practice:** To support the identification of effective dual credit practices, data-driven decision making, and the analysis of opportunity gaps, OSPI and SBCTC could develop resources and guidance to help local programs analyze their programs' outcomes and effectiveness. The resources might be based on local examples, such as Columbia Basin College, and national guidance, such as the Community College Research Center's guide and rubric for assessing equity gaps in dual credit (Mehl et al., 2020). The resources could also be included in state guidelines for the Comprehensive Local Needs Assessments required by *Perkins V*, and evolve as more data on dual credit become available.

Program Costs and Fees

5. **Investigate the impact of district costs on CTE Dual Credit availability:** Although an in-depth investigation of dual credit finance was beyond the scope of this report, the variation in fee structures and stakeholder reports of districts "shopping around" for relatively less expensive articulation partners suggest that the cost of CTE Dual Credit to districts and schools varies. OSPI could partner with SBCTC to assess by how much costs differ by college and whether costs lead districts to limit CTE Dual Credit or favor other dual credit programs. The analysis might also explore strategies for reducing or supporting these and other costs, such as equipment, materials, and instructor training and consider cost-related issues, such as the demands of CTE Dual Credit programs on staff time.

Student Advising

6. **Increase expectations around CTE Dual Credit advising for students and families**: While some high schools and colleges are adept at providing advising, stakeholders believed that guidance from OSPI and SBCTC is needed to ensure consistent, effective advising statewide. Unlike most states, Washington's dual credit policies do not address advising for dual credit students. Kentucky, Ohio, and Oregon, for example, have policies that require advising for dual credit students on transcription policies, financial aid, and other topics. Postsecondary stakeholders consulted for this report recommended providing students information on using their dual

credit to meet degree requirements beyond their CTE pathway. Accounting 101, for example, could be applicable to business programs other than accounting, and education majors may have the option to use agricultural CTE Dual Credit to meet the natural science credits required for their degrees. This recommendation also reflects a recent WSAC report and the advice of national experts, who recommend advising systems that combine guidance on course selection, coordinate advising across education levels, and connect students with tutoring and other supports (Mehl et al., 2020, College in the High School Alliance & Level Up, 2019).

Washington Dual Credit Programs and Policies Overview

Although there are some similarities between Washington's three course-based dual credit programs—Running Start, College in the High School, and CTE Dual Credit—by design and as encoded in state policy, the programs differ in terms of course offerings and instructional settings. The following sections highlight these and other significant differences between the programs with reference to relevant laws (Revised Code of Washington; RCW), rules (Washington Administrative Code; WAC), and guidance on CTE Dual Credit Programs in Chapter 4 of the SBCTC Policy Manual.

In addition to state policies, dual credit serves as an accountability indicator in Washington for two federal laws: the *Every Student Succeeds Act (ESSA)* of 2015 and *Perkins V* of 2018. Student completion of dual credit is included in the state school accountability system, the School Improvement Framework that Washington developed to meet ESSA requirements. Dual credit is also among the CTE program quality indicators that Washington selected for *Perkins V.* For this indicator, the state set a goal of 85.7% of CTE concentrators (students who complete at least two courses in a single program or POS) completing courses that provide dual credit by 2023–2024 (Washington Workforce Training & Education Coordinating Board, 2020). By including dual credit in the accountability systems developed for these federal laws, the state has incentivized schools and programs to expand student participation in dual credit.

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Course-Based Dual Credit Program Comparison

The basic features of the three dual credit programs overlap; for example, community and technical colleges can serve as postsecondary partners in each and students in grades 11 and 12 are eligible for all three programs (Table 1). CTE Dual Credit is distinct in its focus on secondary CTE coursework and use of local articulation agreements to determine key programmatic features, such as the grade students must earn in the course to quality for postsecondary credit and the process by which postsecondary credits are awarded.

Table 1: Dual Credit Program Basics

	CTE Dual Credit	Running Start	College in the High School
Eligible postsecondary partners	Community and technical colleges RCW 28B.50.531	Community and technical colleges, accredited public tribal colleges; 4-year public institutions may choose to participate: Central Washington University, Eastern Washington University, Washington State University, and The Evergreen State College RCW 28A.600.300	Community and technical colleges, accredited public tribal colleges, state universities, the regional universities, and The Evergreen State College RCW 28A.600.290(7)
Eligible course types	A high school course aligned to a CTE pathway for CTE college credit RCW 28B.50.531	Catalogued college courses in all subject areas RCW 28A.600.310(1)(b)	Catalogued college courses in all subject areas RCW 28A.600.290(3) WAC 392-725-250
Postsecondary and/or secondary credit earned	Secondary credit; award of postsecondary credit is contingent upon (a) student enrollment in SERS or other college registration process; (b) attainment of minimum grade as defined in the articulation agreement; and (c) fulfillment of college-defined transcription processes, including any applicable fees	Both RCW 28A.600.350	Both RCW 28A.600.290(2)
Where courses provided	High school or skills center	College campus RCW 28A.600.310(1)(b) WAC 392-169-015	High school
Eligible student grade levels	9–12	11–12 RCW 28A.600.310	9–12 RCW 28A.600.290(5)(f)

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Program funding: There is less overlap between the three programs in terms of costs to students and school districts (Table 2). Depending on the institution, CTE Dual Credit is offered at no or low cost to students; other programs can charge students some tuition and fees, with state funds available to cover costs for qualifying low-income students.

Table 2: Dual Credit Program Financing

	CTE Dual Credit	Running Start	College in the High School
Student and family participation costs	Students are not charged tuition. Depending on the local articulation agreement, students seeking college credit may be assessed a transcription fee.	Students may be charged up to 10% of tuition and fees, prorated based on credit load RCW 28A.600.310(2). Students may be charged fees; low-income students must be offered fee waivers (RCW 28A.600.310) and may be eligible for a scholarship to defray other costs.[1]	Students may be charged tuition and fees RCW 28A.600.290(5)(a). Low-income students may be eligible for a scholarship[1] RCW 28B.76.730. The amount charged is locally determined and capped at $65 per credit or $325 for a course.
Funding implications for K–12 partners	Depending on the local articulation agreement, high schools or districts may be charged a • consortium fee, • course fee, and • student transcription fee (unless stipulated in the articulation agreement that students pay).	Districts pay participating colleges 93% of basic education funding for the portion of eligible student full-time equivalent, retaining 7% to offset program-related costs RCW 28A.600.310(4).	Postsecondary partners may assess K–12 partners a fee per course or per college credit, as well as other associated program fees. Each College in the High School agreement (between a K–12 district, charter school, or tribal school and postsecondary institution) must specify fee amounts and the method for collection of such fees. WAC 392-725-050
Funding implications for postsecondary partners	Colleges or consortia may assess high schools or districts a • consortium fee, • course fee, and • student transcription fee (unless stipulated in the articulation agreement that students pay).	Participating colleges receive 93% of the sending district's basic education funding for the portion of eligible student full-time equivalent. RCW 28A.600.310(4)	Postsecondary partners may assess K–12 partners a fee per course or per college credit, as well as other associated program fees. Each College in the High School agreement (between a K–12 district, charter school, or tribal school and postsecondary institution) must specify fee amounts and the method for collection of such fees. WAC 392-725-050

[1] The Washington Dual Enrollment Scholarship Pilot Program provides limited scholarships to cover eligible low-income students' eligible tuition, fees, and materials (RCW 28B.76.730). As of March 2021, the program is scheduled to terminate July 1, 2025 (RCW 43.131.427).

In addition to the program-specific funding provisions noted above, districts that have adopted an academic acceleration policy are eligible for one-time state grants to expand the availability of dual credit programs. Grant funds may "support teacher training, curriculum, technology, examination fees,

textbook fees, and other costs associated with offering dual credit courses to high school students, including transportation for Running Start students" to and from the postsecondary campus. The program prioritizes high schools serving a high proportion of low-income students and high schools looking "to develop new capacity for dual credit courses rather than proposing marginal expansion of current capacity" (RCW 28A.320.195 and RCW 28A.320.196).

Course instructors and content: The three programs operate under distinct state policies governing instructor qualifications (Table 3). Although policy does not require college approval of CTE Dual Credit instructors, in practice stakeholders share that colleges consider the instructor qualifications when negotiating articulation agreements. State policy provides guidance on course content for Running Start and College in the High School dual credit programs and gives articulating colleges authority over the content of CTE Dual Credit courses.

Table 3: Course Instructors and Content

	CTE Dual Credit	Running Start	College in the High School
Eligible instructors	Community and technical colleges recognize vocational teaching certificates issued by the Office of Superintendent of Public Instruction for the certified subject areas (WAC 131-16-095), including for dual credit	Postsecondary faculty RCW 28A.600.310	High school teachers approved by the appropriate college or university academic leadership and who meet the minimum qualifications for instructors teaching the course on the college campus (for transfer courses, usually a master's degree in the discipline of the course) WAC 392-725-150
Course content	The college partner determines the competencies that will be required to meet the college's course requirements; competencies must describe the assessment method(s) used to verify student accomplishments SBCTC Policy Manual	Courses are taught by college faculty on the college campus RCW 28A.600.310	Eligible courses must meet the National Alliance of Concurrent Enrollment Partnerships accreditation standards, which are codified in Washington administrative code as follows: Student standards WAC 392-725-130 Curriculum and assessment standards WAC 392-725-140 Faculty standards WAC 392-725-150 Evaluation standards WAC 392-725-160 Partnership standards WAC 392-725-170

In comparison with Running Start or College in the High School, fewer state statutes, regulations, and policies govern CTE Dual Credit. CTE Dual Credit also lacks policies common in other states' dual credit programs, such as those addressing the program application process or student eligibility requirements (beyond grade level). Additional policies and regulations could increase program consistency and quality and elevate CTE Dual Credit among the dual credit options. Most stakeholders thought that CTE Dual Credit was considered "less than" Running Start and College in the High School by many students, families, and education administrators. Although these views might reflect long-standing and pervasive

negative perceptions of CTE in general (Gordon & Schultz, 2020), some stakeholders believed that aligning CTE Dual Credit policies with those governing College in the High School could improve its standing.

Stakeholders also expressed concerns that changes to some policies, such as student eligibility, could negatively impact student access, highlighting a need to carefully monitor policy changes for unintended consequences.

National Dual Credit Policy Context

As CTE Dual Credit policy differs from that of other Washington dual credit models, so too does CTE Dual Credit differ from dual credit programs in other states. Table 4 summarizes some of these differences. The examples of common state policies are from national reviews of state policies conducted by a research team member for work with the Education Commission of the States, the College in High School Alliance, NACEP, and other organizations.

Table 4: Comparison of Common State and CTE Dual Credit Policies

Program component	Common state policies	CTE Dual Credit
Program application process and timeline	Prior to course enrollment or registration or program participation (depending on state policy) students must apply for enrollment (either in the program generally or a specific college course). Application and enrollment or registration timelines typically mirror those of regularly enrolled college students.[1]	There is no application. Students enroll in a CTE course offered at their high school in the same manner as students seeking only high school credit for the course.
Eligibility requirements	Students must meet program eligibility requirements, which may be the same as admissions requirements for regularly matriculated students or include additional requirements (e.g., minimum age or high school grade, ACT/SAT score, parent permission, teacher, or counselor recommendation).[2]	There are no eligibility requirements beyond high school grades 9–12; however, a student enrolling in a course that is second or beyond in a course sequence would need to complete prior coursework in the sequence.
Counseling and advising	Some states require dually enrolled students, often before program participation, to receive advising or counseling on specified topics related to program participation.[3]	There is no explicit counseling or advising component.
Type of credit students receive upon course completion	Some state programs allow students to decide **when enrolling in a course** whether they will complete the course for only high school credit, only college credit, or both. Others specify that students **automatically earn both high school and college credit** upon successful course completion.[4]	Depending on the institutions, students may be able to decide **before, during or after completing a course** whether they will seek only high school credit—or high school and college credit—for a course.

Program component	Common state policies	CTE Dual Credit
Course grade that confers college credit	The policy is the same as for regularly matriculated students (e.g., C- or above).[5]	Some articulation agreements require high school students to earn a higher grade (e.g., B, 85%) than regularly matriculated students to receive college credit.
Transcription	College credit (if the student requests it) is transcribed upon successful course completion.	The CTE Dual Credit articulation agreement determines whether college credit is automatically transcribed at the end of the term or academic year (direct transcription), or whether a student must request that the college transcribe credits the student has earned.

[1] For example, students in New Mexico must register for courses during the postsecondary institution's standard registration periods (N.M. Admin. Code 6.30.7), and Illinois stipulates that dual credit students follow all college procedures for enrolling in courses (23 Ill. Adm. Code 1501.313).

[2] For examples of additional eligibility requirements beyond those for regularly matriculating students, see Education Commission of the States. 50-State Comparison: Dual/Concurrent Enrollment: Student eligibility requirements, http://ecs.force.com/mbdata/MBQuest2RTanw?Rep=DE1907.

[3] See, for example, Education Commission of the States, 50-State Comparison: Dual/Concurrent Enrollment: Counseling/advising is made available to students, http://ecs.force.com/mbdata/MBQuest2RTanw?Rep=DE1913N.

[4] See, for example, Education Commission of the States, 50-State Comparison: Dual/Concurrent Enrollment: Postsecondary and/or secondary credit earned, http://ecs.force.com/mbdata/MBQuest2RTanw?Rep=DE1909.

[5] For example, the North Carolina Community College System's Career and College Promise program requires students to continue to make progress toward high school graduation and maintain a 2.0 GPA in college coursework after completing two courses to maintain eligibility for continued enrollment.

Recommendations

Multiple dual credit programs can increase student choices and opportunities but can also create confusion, particularly for students and families but also for teachers, counselors, and other school staff. Dual credit program staff interviewed for this report reported that stakeholders might benefit from messaging or resources clearly explaining the following program differences:

- **Enrollment processes and timelines**: Running Start and College in the High School students enroll at partnering colleges following the same timeline and processes as regular college students. CTE Dual Credit students need only enroll with the partnering college if they choose to be awarded college credit upon successful course completion—which, depending on the course articulation, may be after students have graduated high school.
- **Courses that may be offered for CTE Dual Credit**: Running Start students choose courses from the institution's regular course offerings. College in the High School can include CTE coursework, but in practice most courses offered through this program are in non-CTE subjects. However, some stakeholders expressed uncertainty regarding whether a college may articulate a high school CTE course (e.g., photography or business) that the college offers as a transfer course.
- **Criteria for the awarding of college credit**: Running Start and College in the High School students are awarded college credit in the same manner as regularly matriculated students (upon receipt of a passing course grade). Depending on the articulation agreement, CTE Dual Credit students may be required to earn a higher grade than a regularly matriculated student to be awarded college credit. For example, a CTE Dual Credit student might need to earn a B or

85% in a course to receive college credit, whereas a regularly matriculated student could earn college credit by earning a C- in the same course.

- **Credit transcription process**: Running Start and College in the High School students receive transcripted college credit upon completion of each successfully completed course. The CTE Dual Credit articulation agreement determines whether college credit is automatically transcribed at the end of the term or academic year upon earning a minimum course grade (direct transcription), or whether a student must request that the college transcribe credits the student has earned.

Align policies across course-based dual credit programs: According to stakeholders, differences between Washington's dual credit programs, such as calendars, costs, and course transcription policies, can be confusing for educators, students, and parents. Harmonizing these requirements across programs could help students and parents navigate dual credit options more easily and simplify program administration. For policy, College in the High School and about 20 states follow the NACEP accreditation standards. NACEP accreditation requires applicant postsecondary institutions to demonstrate adherence to standards in six categories—partnerships, curriculum, faculty, students, assessment, and program evaluation. NACEP recommends, for example, that policies governing dual credit registration and course transcription be consistent with those on campus.

In the longer term, Washington might consider (a) consolidating dual credit offerings into a single statewide dual credit program like Georgia, Illinois, and Utah or (b) having two or more dual credit models, one of which accounts for nearly all dual credits earned, like Colorado, Indiana, and Iowa (Table 5). In all these states, a single set of policies governs student data collection and reporting, student eligibility requirements, program funding, and so on. regardless of whether a course is liberal arts or CTE or whether it is offered at the high school or college campus.

Table 5: Comparison of Key Program Features of Unified Statewide Dual Credit Programs

State	Name of program[1]	Program costs	Eligible instructors
Georgia	Dual enrollment	State covers tuition by paying institutions an agreed-upon amount from an annual appropriation. Colleges are prohibited from charging students for textbooks and fees.	State policy does not address teacher qualifications; the regional postsecondary accreditor requires dual enrollment instructors to have the same academic credentials and/or documented professional experience required by the institution for its faculty.
Illinois	Dual credit	Locally determined between the district and college	Same credential requirements as on-campus faculty; exceptions permitted for high school teachers enrolled in coursework to meet on-campus faculty requirements and who has an approved professional development plan (primarily for instructors of liberal arts courses)
Utah	Concurrent enrollment	Students pay $5 per credit hour (statute permits a higher rate to be charged). State funds are distributed in a 60/40 split between districts and the State Board of Regents depending upon whether the high school or college	HS CTE teachers must hold either a degree, certificate, or industry certification in the concurrent enrollment course's academic field; or qualifying experience, as determined by the institution of higher education. HS liberal arts teachers must hold either a master's or higher in the subject of the course;

State	Name of program[1]	Program costs	Eligible instructors
		primarily bears the cost of instruction.	a master's in any academic subject plus 18 graduate hours in the subject of the course; or qualifying experience, as determined by the institution of higher education.

[1] Excludes early college models, such as early colleges, middle colleges, or P-TECH.

Combining Washington's course-based dual credit programs would require stakeholder agreement on some of the differences between the programs, including the following:

- **Awarding of high school and secondary credit upon successful course completion**: In Running Start and College in the High School, students earn high school and college credit upon successful course completion. In CTE Dual Credit, whether and when college credit is awarded varies, and some stakeholders believed that students benefit from the flexibility allowed by not awarding credit until the student requests that credit be transcripted.
- **Minimum course grade that confers college credit**: Distinct from most national dual credit programs, Running Start, and College in the High School, the grade that high school students must attain to earn college credit for a CTE Dual Credit course can vary from the grade required for regularly matriculated college students.
- **Eligible grade levels**: While CTE Dual Credit and College in the High School allow students in grades 9–12 to enroll in college courses, Running Start participation is limited to students in grades 11 and 12. If the state creates a single program in which student eligibility requirements are the same, the state must decide whether to extend Running Start participation to students in Grades 9 and 10 or limit CTE Dual Credit and College in the High School participation to those in Grades 11 and 12.
- **Program costs**: Most secondary and postsecondary stakeholders noted that College in the High School courses can include students who will and will not earn college credit, regardless of the grades they earn, based on their (or their family's) ability to pay the program's tuition and fees. The same inequities were not noted for CTE Dual Credit or Running Start, although for the latter program, districts are not obligated to provide transportation to and from the postsecondary institution (RCW 28A.600.380), potentially limiting participation for rural or low-income students lacking their own means of transportation. In addition, stakeholders observed that colleges may prefer Running Start and districts College in the High School for financial reasons. A single funding model for Running Start, College in the High School, and CTE Dual Credit should ensure equitable access for low-income students while balancing financial costs to districts and postsecondary partners.
- **Instructor qualifications:** State policy requires community and technical colleges to recognize the credentials of secondary CTE instructors teaching a CTE Dual Credit course in their area of certification. CTE Dual Credit and College in the High School instructors must meet the same qualifications as on-campus faculty in their discipline, a bar that stakeholders believed many high school CTE teachers would not be able to meet.
- **Course content**: College in the High School course expectations and learning outcomes match those of the equivalent on-campus offering. The amount of overlap between CTE Dual Credit articulated high school and college courses varies from 80% to 100%. A unified dual credit

program would need to determine whether and how much flexibility should be allowed for articulated courses statewide.

Policies or guidance to support effective advising: Washington State policy does not address dual credit advising. In 2021, dual credit policies in 29 states, including Kentucky, Ohio, and Oregon addressed advising for dual credit students, with some specifying advising topics, such as college course requirements and how dual credit will be reflected in students' academic records. While dual credit counseling or advising policies are not universal, they can help students understand how course options fit education pathways aligned with their career goals (College in High School Alliance & Level Up, 2019). National experts note that advising can be especially helpful for supporting success in dual credit programs among students that have been historically excluded from educational opportunities like dual credit (Mehl et al., 2020).

Finally, stakeholder feedback suggested a need for **clarification regarding policies addressing course and instructor eligibility for CTE Dual Credit**. According to state statute, all secondary courses with a state approved CTE Classification of Instructional Programs (CIP) code are eligible for CTE Dual Credit (RCW 28B.50.531). When asked about course eligibility, however, multiple stakeholders shared criteria, such as a requirement that the CIP codes of articulated courses match and a prohibition on articulating college transfer courses, that may reflect obsolete policies from Tech Prep. In addition, state policy requires community and technical colleges to recognize high school CTE instructor qualifications (WAC 131-16-095). Some stakeholders, however, maintained that different instructor credentials are needed for secondary CTE courses articulated with college transfer courses, a requirement not in the statute.

To ensure that program staff are aware of current policy and apply it consistently, OSPI and SBCTC could provide joint guidance on CTE Dual Credit course eligibility that acknowledges and corrects these misperceptions. Examples of guidance from other states includes Illinois, which specifies that CTE courses offered for dual credit must be "selected from … courses in approved [Illinois Community College Board] certificate or associate in applied science degree programs" (23 Ill. Adm. Code 1501.313). Ohio has identified a set of introductory courses that students can take for their first 15 college credit hours of participation in the state's dual enrollment program, College Credit Plus.

CTE Dual Credit Practice

The section focuses on how CTE Dual Credit program staff meet the policies and program requirements described in the previous section, based on information provided through the stakeholder interviews. Each of the three sections—course articulation, program management, and student participation—provides an overview of the challenges and promising local practices associated with each topic, followed by recommendations for improvement.

Course Articulation

Articulating high school CTE and postsecondary courses is the first step in offering CTE Dual Credit courses. The research team asked stakeholders to describe their approach to articulation agreement development and the relationship between CTE Dual Credit course articulation and programs of study.

Partners and Partnership Development

The development of articulation agreements requires partnerships between districts and skills centers and colleges, or between K–12 and postsecondary members of a consortia. State policy permits colleges to establish articulations with high schools and skills centers located outside the college district boundary or service area (RCW 28B.50.531). High schools and skills centers also maintain agreements with out-of-state colleges. This flexibility gives secondary CTE programs the option to offer courses not offered by their local postsecondary institutions, but articulations are among partners in the same service district. Some stakeholders maintained that colleges have a "right of refusal" for articulation agreements with districts in their service areas; districts are permitted to partner with other colleges only if their local college did not offer the course or is unwilling to partner. The research team was unable to find any state policies stipulating this limit.

Stakeholders commented that partnerships require consistent effort from all parties involved—CTE teachers, CTE directors, college-level dual credit coordinators, postsecondary faculty, and local businesses in the career cluster of the proposed articulation. Partnership activities for CTE Dual Credit include

- sharing of college and high school documentation for the courses proposed for articulation,
- provision of clear documentation from the high school showing that the proposed course addresses most (or all) of the college course outcomes, and
- evaluation of the degree of alignment between the high school and postsecondary course outcomes and the credentials of the proposed course instructor(s) by the college.

Articulation agreement partners should meet regularly, perhaps in accordance with a master schedule maintained by the articulation partners, to develop and maintain CTE Dual Credit articulation agreements and align pathway coursework (American Association of Collegiate Registrars and Admissions Officers, 2019). Stakeholder feedback suggests that these meetings are often limited to CTE directors and college administrators, and in some cases, collaboration is conducted exclusively by email. Some stakeholders did observe that meetings have increased in response to the increased stakeholder engagement requirements of *Perkins V* legislation.

Stakeholders did not see partnerships with consortia or skills centers to be substantively different than those between districts and colleges, but they generally agreed that skills centers are better positioned to offer CTE Dual Credit than comprehensive high schools. Their observations align with a recent OSPI

recommendation to expand CTE Dual Credit by having skills centers serve as dual credit hubs (OSPI, 2019a). Comprehensive high schools tend to offer introductory CTE courses rather than the more advanced content that dual credit courses tend to cover. Skills centers can offer longer course sequences and extended (540-hour) curricula, including the intensive Core Plus curriculum in aerospace and other fields that can be challenging for comprehensive schools to provide. Skills centers can also access "barrier reduction funds" to cover low-income students' transcription fees that are not available to districts and comprehensive high schools.

Local Practice Examples
To maintain the partnerships needed for CTE programs and CTE dual credit, Yakima Valley high schools hold regular meetings of all high schools, colleges, and business representatives in each career cluster. According to stakeholders, the regional approach allows business and industry representatives to weigh in on CTE offerings by attending a single meeting rather than separate meetings with 20 high schools.

The district CTE director from Renton School District serves on the board of the local chamber of commerce and attends local corporate networking events to gather intelligence on local workforce needs; the district's CTE teachers serve on local community and technical colleges' advisory boards.

Shoreline School District's CTE director attends monthly meetings with the partnering community college's workforce dean and her staff. The college's workforce advisory committee and the district's general advisory committee have merged; program-specific secondary and postsecondary program advisory committees are also beginning to merge.

Articulation Requirements
According to state policy, CTE Dual Credit courses must be taught by a high school instructor certified to teach CTE courses and who holds a vocational code (V-code) in the subject area of the course, in accordance with the [CTE Certification V-code chart](#). Although state policy does not require college approval of CTE Dual Credit instructors (as is the case for College in the High School), stakeholders shared that colleges typically review teachers' qualifications and experience when establishing articulation agreements and occasionally raise concerns.

The college partner determines the competencies that must be included in the dual credit course (SBCTC, no date [n.d.]). The postsecondary stakeholders consulted for this study typically require that CTE Dual Credit courses address from 80% to 100% of the curriculum or course objectives of the articulated college course. Several stakeholders described an "80% rule" governing the amount of overlap between college and high school dual credit course content. SBCTC staff attribute this perception, which is not reflected in state policy, to an agreement between community and technical colleges for the Common Course Numbering Initiative on transfer courses. The colleges agreed to set 80% as the minimum course overlap for developing common transfer courses.

State policy does not require the articulated college course to have a CTE CIP code ([RCW 28B.50.531](#)). Several stakeholders, however, expressed concern that CTE Dual Credit courses articulated to college courses with transfer CIP codes, such as business law, must meet the teacher credential requirements of a transfer course. Stakeholders also observed that CIP codes are not assigned consistently across colleges, even when courses have similar titles and content. A business law course, for example, might be assigned a professional-technical CIP code by one college and a transfer course CIP code by another.

Credit Award and Grading Practices

The number of credits awarded for a CTE Dual Credit course and the grade requirements for CTE Dual Credit students to earn college credit are set locally. Articulation agreements specify the number of high school credits and the number of postsecondary credits that the student will earn upon successful course completion. Course credits awarded through CTE Dual Credit are usually equivalent to the number of credits awarded to regularly matriculated college students, but some stakeholders shared that guidance on setting credit amounts would be helpful for some courses. Unlike Running Start and College in the High School (RCW 28A.230.090), state policy does not set credit equivalencies for CTE Dual Credit.

The SBCTC Policy Manual recommends a grade of B or better to be granted college credit for articulated courses. The minimum course grades for college credit varied among the stakeholders consulted for this study and sometimes by program within colleges; about half of the local stakeholders' programs (secondary and postsecondary) set a B grade as the minimum, and the rest followed college grading standards (a C- or better). One consortium views the B-grade minimum as a safeguard and assurance to college instructors that the students will truly master the content, given that high school instructors are not directly managed by the college. Stakeholders following college grading standards noted that the SBCTC states that the courses should be college equivalent and that holding all students to the same grade expectation was more equitable. Additionally, some colleges define the minimum B grade as 80%, and others as 85%. Stakeholders also mentioned programs in which one grade is required to earn college credit and a higher grade to advance to the next course in a sequence.

Approaches to handling minimum grade requirements for articulation agreements covering sequenced courses, such as Culinary I and II, varied. In some colleges, the two courses are governed by separate articulation agreements. In other colleges, Culinary I and II are semester courses with one articulation agreement for the full year, which might stipulate that the minimum grade be met by the average of the two grades or that a student must attain the minimum grade in each semester.

Pathway or Program of Study Development

Perkins V requires local education agencies and postsecondary institutions to offer two or more programs of study. A program of study is intended to help students connect their high school CTE course work, including dual credit, to further education and career opportunities and is defined by the legislation as follows:

> The term ''program of study'' means a coordinated, nonduplicative sequence of academic and technical content at the secondary and postsecondary level that—
>
> (A) incorporates challenging State academic standards, including those adopted by a State under section 1111(b)(1) of the Elementary and Secondary Education Act of 1965;
>
> (B) addresses both academic and technical knowledge and skills, including employability skills;
>
> (C) is aligned with the needs of industries in the economy of the State, region, Tribal community, or local area;
>
> (D) progresses in specificity (beginning with all aspects of an industry or career cluster and leading to more occupation-specific instruction);
>
> (E) has multiple entry and exit points that incorporate credentialing; and

(F) culminates in the attainment of a recognized postsecondary credential.[2]

National experts and OSPI recommend that programs of study include pathway-aligned dual credit to limit "random acts of dual credit" or students earning college credits that can only be used as elective credit in college because of a disconnect between their dual coursework and their post–high school educational and career aspirations (Altstadt et al., 2019; OSPI, 2020). Programs of study can help students and program staff understand how dual credit courses can be applied to postsecondary professional-technical programs, which stakeholders noted that school advisors typically do not have the time to research.

Among the secondary CTE program study staff consulted for this study, the development of programs of study is the responsibility of CTE directors and teachers. The role of programs of study in secondary CTE program planning varied. One stakeholder's district regards programs of study as an essential tool for ensuring that dual credits earned by students fulfill degree requirements at the offering college and CTE teachers meet every 3 months to review programs and course catalogs (including at 4-year institutions) to align program of study and student dual credit options. For other stakeholders, graduation pathways are a greater focus and some also expressed uncertainty about what programmatic features, beyond an articulation agreement, programs of study should include. At the postsecondary level, some stakeholders reported developing programs of study separately from their partnering secondary colleagues, using their own or SBCTC templates for program of study documentation.

Recommendations

Expand common course numbering: National experts recommended uniform course numbering for lower division courses to facilitate course transfer and articulation. Washington's community and technical colleges have instituted common course numbering for academic transfer courses and some professional-technical courses. Expanding common course numbering for more professional-technical courses would facilitate the creation of statewide articulation agreements for CTE Dual Credit, reducing the labor needed for local articulation, and help resolve institutions' assigning different numbers to the same course. As a first step, the Common Course Numbering Committee should review the findings of this report and discuss options for increasing common course numbering in support of CTE dual credit.

Consider consistent grading policies for dual credit: Stakeholders indicated that CTE Dual Credit grading policies can be confusing for students and families, particularly when requirements vary by program in the same high school, or a different grade is required for college credit and taking the next course in a sequence. Dual credit policies in other states generally require that students be awarded college credit upon successful course completion (e.g., a passing grade). The research team could not find any reviews of dual credit grading policies but team members, who collectively have reviewed dual credit policies in about three dozen states, are not aware of any programs that set different grade expectations for high school dual credit students. NACEP requires that "the college/university ensures concurrent enrollment students' proficiency of learning outcomes is measured *using comparable grading standards* … to on campus sections" [emphasis added] (NACEP, 2017).

Encourage secondary-postsecondary collaboration for program of study development: Stakeholders noted that CTE program staff frequently confuse programs of study with articulation, in part because different individuals may be responsible for CTE Dual Credit and meeting *Perkins V* requirements.

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[2] *Strengthening Career and Technical Education for the 21st Century Act* (2018).

Stakeholder responses also suggest that the cross-education level coordination needed for effective program of study development may be inconsistent. OSPI and SBCTC could encourage collaboration by developing common program of study tools and templates and joint guidance on addressing programs of study through Perkins-required activities, such as the Comprehensive Local Needs Assessment and local program applications for Perkins funds.

CTE Dual Credit Program Management

In addition to the development and maintenance of articulation agreements, state and local stakeholders highlighted several topics as essential for effective program management, including data collection and management, costs and fees, and the administration of credits earned through CTE Dual Credit, including transcription.

CTE Dual Credit Data

In accordance with state policy, OSPI collects data on student attainment of dual credit through the state's six programs (RCW 28A.300.560). The SBCTC Policy Manual notes that schools and colleges participating in dual credit should record students and articulated credits using available local and state data and information systems to provide a record of student achievement, program accountability, and evaluation. All but two of the local stakeholders interviewed reported using SERS, an online platform for CTE Dual Credit developed and maintained by SBCTC. Students use SERS to register for classes, teachers to enter CTE Dual Credit students' grades, and colleges to award college credit and generate college transcripts.

Stakeholders described SERS as "clunky" and outdated and recommended the following upgrades and recommendations for greater functionality:

- **Student account verification using cell phone numbers**: Because students cannot retrieve or reset their SERS login information themselves, they sometimes apply creative workarounds to access the system (e.g., changing a digit in a birthdate) when they forget their usernames and passwords, resulting in multiple SERS records for the same student. As a result, college staff must spend time reconciling duplicate SERS and college records to award credit and ensure accurate program- and state-level reporting.
- **Automated validation for data entry fields**: Web platforms sometimes have data validation features that catch errors at the point of data entry. Stakeholders believed that error messages for key fields such as when a user enters a comma instead of a period or misspells .com or .net in an email address could improve data quality.
- **Administrative functions for college staff**: Currently, postsecondary staff lack the authority to merge or delete SERS records and must ask SBCTC to make the changes necessary. Allowing college staff to update student records, following guidelines set by SBCTC, could save staff time.
- **Searchable course titles**: Creating searchable fields for the titles of articulated high school and college courses would help students, families, and staff members find courses for registration and other administrative processes.
- **Notifications or date-of-update fields for articulations in SERS**: Stakeholders observed that articulation agreements are created and updated by dual credit coordinators on an ad-hoc basis, creating uncertainty regarding whether the agreements recorded in SERS are current. A field in SERS tracking the date that an agreement was created (or uploaded) and revised and/or email or text alerts to SERS users regarding changes could inform users of updates.
- **Expanded access to CTE Dual Credit data for secondary staff, including**:
  - CTE Dual Credit attainment data disaggregated by student characteristics to identify equity gaps and
  - lists of articulated classes by college to help secondary staff identify relevant articulation agreement models and students interested in less common fields find dual credit opportunities.

- **Clearly identified multicourse articulation agreements**: In some instances, a single college course is articulated with two high school courses. Because SERS does not clearly indicate when courses are part of a sequence, students and families may not realize that completion of both courses is needed to earn college credits and meet program requirements. Stakeholders also noted that SERS does not allow them to connect courses in two-course articulation agreements when students cannot take both courses in the same year.
- **Cross-system compatibility and communication**: SERS functions independently of OSPI's CEDARS and the postsecondary ctcLink system. Because these systems are separate and access to SERS is limited, registrars and dual credit coordinators must manually enter some student information and grades, requiring additional staff time, increasing the likelihood of data entry errors.

Among the local stakeholders interviewed for this study, one secondary and one college program do not use SERS. The college uses a single system (Canusia) to manage data for Running Start, College in the High School, and CTE Dual Credit, which simplifies record keeping for students who participate in multiple programs. In addition, Canusia communicates with PeopleSoft and ctcLink, eliminating the need for manual entry of grades in SERS by the dual credit coordinator. Staff appreciate the system's simple password reset function and that it allows program staff to readily detect and combine multiple records for a single student.

There is precedent for system-level adoption of Canusia for dual enrollment data management. Maine uses separate Canusia systems for dual enrollment through the University of Maine and Maine Community College systems. The two systems share a backend so that high school users can access both systems through a central access point. Canusia typically charges a flat per-institution fee of $30,000 for the first year and $10,000 for each subsequent year, regardless of the number of students enrolled or credits accumulated. Systems like those in Maine with multiple institutions are assessed a discounted rate. The other widely used dual enrollment data management platform is DualEnroll, which is used by individual institutions as well as statewide systems such as the Ivy Tech Community College System in Indiana, the New Hampshire Community College System, and the Virginia Community College System. Rather than a flat annual fee, DualEnroll charges institutions a transaction fee for each student registration. No stakeholders interviewed for this project were using DualEnroll or reported plans to adopt DualEnroll.

Aside from data systems, stakeholders also noted a lack of data on key aspects of CTE Dual Credit students' coursetaking. Data are available on the number of students participating in CTE Dual Credit and qualifying for high school credit (i.e., passing the course) through CEDARS. CEDARS cannot, however, provide data on who earns college credit through CTE Dual Credit and whether those earning credits apply them to postsecondary programs (WSAC, 2019). As a result, key questions with relevance for dual credit policy, such as whether the credits earned through CTE Dual Credit reduce students' time to degree or education costs, cannot be answered. In addition, although participation in CTE Dual Credit mirrors the demographics of the student population overall, it is not known whether this proportionality extends to students earning college credit or using the credits in degree programs.

Finally, local stakeholders shared an interest in learning more about dual credit best practices. Research on dual credit, however, has focused on program models, such as early college high schools or Advanced Placement, rather than programmatic features, and policy guides typically focus on the state level (e.g., College in High School Alliance & Level Up, 2019). A recent national working group on dual credit noted a lack of information in the field regarding the impact of delivery models and program features, such as teacher preparation and counseling, and other supports (College Board, 2017).

Recommendations

A common statewide dual credit data platform: A common data collection and reporting platform for all high schools, districts, and colleges—either an updated version of SERS or a new platform—would bring Washington State in line with nationally recommended practices for dual credit data (College in High School Alliance & Level Up, 2019). Using the College in the High School platform for CTE Dual Credit, for example, would combine all articulation agreements in one system, potentially reducing staff training time and simplifying course management and transcription for students who take courses in both programs.

Collect statewide data on college credit attainment and use: A common data system should be designed to support the collection of accurate statewide data on the credits earned through CTE Dual Credit and the extent to which students are using the credits to meet degree or program requirements. A 2016 report noted that while enrollments in CTE Dual Credit are high, most students take the courses to meet high school requirements and opt not to seek college credit (WSAC, 2016). Data on credit attainment and use could also help identify opportunity gaps or programs where students need tutoring or other support to earn their college credit or guidance on using it effectively.

Statewide dual credit report: Additional data would also help OSPI and SBCTC meet stakeholders' interest in an annual public-facing dual credit report that includes data on CTE Dual Credit. The annual OSPI report cards recount dual credit participation by student demographics, but statewide data are not publicly reported by dual credit program type, location, and student demographics, which are needed to identify gaps in dual credit course access and success. In states such as Minnesota, reports on dual credit participation and outcomes inform state and local conversations on programmatic commonalities and disparities.

Support the development of an evidence base for dual credit outcomes and practice: To support the identification of effective dual credit practices, data-driven decision making, and the analysis of opportunity gaps, OSPI and SBCTC could develop resources and guidance to help local programs analyze CTE Dual Credit program outcomes and effectiveness. The resources might be based on promising local examples, such as Columbia Basin College and the Yakima School District, and national guidance, such as the Community College Research Center's guidelines for addressing equity gaps in dual credit (Mehl et al., 2020). The resources could also be included in state guidelines for the Comprehensive Local Needs Assessments required by *Perkins V* and expand as more data become available. The analysis of dual program data and analysis of program effectiveness can also be supported through state policy; 33 states have policies on the review of dual credit programs, with 10 specifying local-level reviews.

Data collection could also include student survey templates that programs could use to collect information on their students' experiences in CTE Dual Credit. The student interviews conducted for this study, for example, suggest that students' awareness of the various dual credit programs varies and that

credits earned through CTE Dual Credit are not always applied correctly to program requirements, including course prerequisites. Once students return to classes after the COVID-19 pandemic, SBCTC might collaborate with colleges to survey classes of students in programs with CTE Dual Credit articulation agreements to learn about how students learn about the prevalence of these and other issues.

Dual Credit Personnel

At the secondary level, CTE directors typically coordinate CTE Dual Credit programs, or the responsibilities are split between the CTE director and another staff person such as a career specialist or CTE coordinator. At the postsecondary level, all colleges and consortia interviewed maintain dual credit coordinator staff positions, though there were differences by location in their responsibilities *in addition to* CTE Dual Credit. The proportion of dual credit administrators' time dedicated to CTE Dual Credit programs varies from year to year depending on the nature and number of articulations created or renewed.

Strategies for funding dual credit coordinator positions also vary by college or consortium. At one college, Perkins funds are pooled across the three campuses that the position serves; at another college, institution funds cover coordinator costs. Secondary district staff with responsibility for CTE Dual Credit are typically funded through the general state apportionment.

Stakeholders observed that staff support for CTE Dual Credit programs has not kept pace with recent increases in the number of articulations and students participating. In addition, declining enrollments have led colleges to consolidate student services positions as a cost-saving measure, placing additional responsibilities—either for other dual credit programs or other CTE programming—on coordinators' shoulders. If colleges do not experience an influx of enrollments among dual credit earners, funding dual credit personnel may not be a fiscal priority. In addition, some stakeholders believed that competing responsibilities and the labor that CTE Dual Credit articulation agreements can require has led some dual credit staff to give less attention to CTE than other dual credit programs.

Postsecondary and secondary stakeholders also observed that turnover among dual credit staff can be frequent, undermining program consistency over time. Although the CTE Dual Credit shared email list was recognized as an important resource for fielding questions, new staff in particular reported challenges in finding clear and accurate information about CTE Dual Credit.

Recommendations

Support for dual credit coordinator positions: College-level dual credit coordinator positions were once funded through Perkins, and stakeholders believed that support for these positions since the end of Tech Prep has not kept pace with the growth in dual credit courses and student enrollments. Dual credit coordinators often have multiple other responsibilities that leave them with too little time for managing dual credit programs well. In addition, colleges might consider committing a portion of their dual credit coordinators' time to working at and with local high schools. The coordinators could advise students on the applicability or transferability of CTE Dual Credit courses to postsecondary programs, which can be challenging for high school CTE instructors and guidance counselors who work with multiple postsecondary institutions.

Support ongoing collaboration between CTE Dual Credit administrators: Veteran stakeholders valued the statewide Tech Prep meetings formerly held once or twice a year and attended by representatives

of each consortium or community college. The meetings provided a venue for participants to discuss best practices and address common challenges and offered a platform for OSPI and SBCTC staff to hear local stakeholder concerns. Stakeholders thought that more collaboration, either in person or virtual, would support the development of statewide or regional articulation agreements. Stakeholders also expressed a need for a CTE Dual Credit coordinator roster to support collaboration and the sharing of information, particularly for new staff. The roster might be in addition to or expand on SBCTC's list of consortium websites. An online repository of examples of CTE Dual Credit program documentation, including sample articulation agreements and student advising resources, would further support peer learning and program coordination. Stakeholders believed that the resources would provide needed guidance and ideas to new and veteran staff.

CTE Dual Credit Program Costs and Fees

Since the end of Tech Prep in 2011, CTE Dual Credit programs have been funded locally at least partially by charging districts, and sometimes students, fees that vary by college and sometimes by articulation agreement (OSPI, 2019a). Stakeholders identified two types of program fees: (a) **a district or participation fee** assessed by a college or consortium for a district's participation in a dual credit articulation agreement or a consortium and (b) a **transcript fee** that covers the college's costs for entering college credits earned in high school onto a college transcript. Depending on the program, the latter fee might be paid by the student, high school, or district, or waived by the high school, district, college, or consortium due to student financial need.

Among most of the local stakeholders consulted for this study, schools, districts, and colleges covered the costs of CTE Dual Credit for students, but three secondary stakeholders reported transcription costs (sometimes called an application or registration fee) that are charged to students. Two of these stakeholders noted that funds are available to cover fees for low-income students. Other CTE Dual Credit costs—including textbooks and course materials—are covered by the district in the same manner as for other CTE courses (e.g., through Perkins or general operating funds). Nationally, there is little consistency in the type of nontuition fees (e.g., enrollment, lab fees, material fees), and the entity responsible for covering those costs (e.g., district, college, student, external partner such as a foundation or business) (Zinth, 2019).

Colleges use the fees charged to districts to cover the costs of creating and maintaining the articulation agreements needed for CTE Dual Credit programs, coordinating and communicating with CTE directors and high school career specialists, responding to student and parent queries, and providing training and support materials for CTE Dual Credit high school teachers and administrators. The funds can also cover program marketing materials for use both by secondary and postsecondary staff. Postsecondary stakeholders' approaches to levying district or participation fees to schools and skills centers vary and include the following:

- **Flat rate**: Examples of flat fees include a district that pays $15,000 a year to cover all student transcription fees for all articulations or courses, and another that pays $30 per CTE Dual Credit student each school year (regardless of how many CTE Dual Credit courses the student completes in that school year).
- **Fee per articulation or course**: One skills center pays its college partner $400 per articulated course, regardless of how many students enroll. Another college charges districts $200 per articulated course plus an additional fee for each course section (taught by a different teacher)

offered, generating more revenue from larger school districts that offer the same course in different high schools.

- **Formula:** One college charges districts annually for each student earning credits from CTE Dual Credit (not per student who registers for a CTE Dual Credit course), based on a 3-year average. Using a 3-year average helps with budgeting by colleges and districts by allowing them to budget on the "norm" for the program, avoiding dips and highs from year to year.

The fee amount and structure reflect the staff time needed to support CTE Dual Credit, other program expenses that fees might cover (e.g., office space, equipment, staff travel, program marketing materials), and the extent to which other funding sources (e.g., Perkins, Running Start) are available to offset the costs of staffing dual credit positions.

Secondary partners also bear additional costs beyond charges assessed by a partnering college or consortium. The development of articulation agreements places additional demands upon CTE teachers, district CTE directors, counselors, and advisors. The staff time needed can be particularly burdensome in small districts where one staff person may serve as the district CTE director, teach CTE courses, and potentially take on other roles, or a single advisor serves an entire high school. Secondary schools also bear the cost of required instructional materials, which some college courses change frequently. Training and equipment can also pose challenges, particularly for smaller districts.

Consortia members (colleges, high schools, districts, and skills centers) are assessed a consortium fee that covers the staff, facility, and materials costs associated with dual credit program operations. Most consortia charge districts a flat annual fee, and some also assess student fees. In one consortium, districts pay an annual fee based on the number of CTE full-time equivalent students enrolled in the district each school year, regardless of the number of CTE Dual Credit courses students take. Fee structures also vary by member type: one consortium charges member colleges a flat $5,000 annual fee, while applying a per-CTE full-time equivalent fee to district partners.

Recommendations

Investigate the impact of district fees on CTE Dual Credit availability: Although an in-depth investigation of dual credit finance is beyond the scope of this report, the variation in fee structures and stakeholder reports of districts "shopping around" to reduce costs suggests that the overall costs of CTE Dual Credit to districts and schools varies. An analysis conducted jointly by OSPI and SBCTC could assess by how much the costs of CTE Dual Credit differ by college and whether costs lead districts to limit CTE Dual Credit offerings or favor other dual credit programs. The analysis might also uncover strategies and motivations for reducing or eliminating these costs. One postsecondary institution, for example, justifies not charging fees to districts by actively using CTE Dual Credit to recruit and matriculate CTE Dual Credit students after high school graduation. In addition, the analysis might also explore the suspicion voiced by some stakeholders that other costs to districts associated with CTE Dual Credit, such as equipment, materials, and staff training, could affect course availability as well.

Explore alternatives to student fees: A 2019 OSPI study found participation among low-income students to be higher for CTE than other types of dual credit, which the authors attribute to CTE Dual Credit being offered at no or low cost to students. In addition, student fees are mostly transcription fees paid when students apply to college rather than "up front" fees for participation (OSPI, 2019a). Research affirms that costs to students and families can limit student participation in dual credit (Mehl et al. 2020);

stakeholders consulted for this study reported finding transcription fees as low as $15 to pose a barrier from some students. Although some stakeholders thought that students and families take greater care in choosing and doing well in dual credit courses when costs are involved, other colleges have eliminated these fees to promote equity and access. OSPI recommends fully covering dual credit costs for students and their families by 2023 (OSPI, 2020), echoing the recommendations of national experts (Mehl et al., 2020; Zinth, 2014a, 2014b).

CTE Dual Credit Transcription and Transfer

In some CTE Dual Credit programs, credits earned are automatically awarded and transcribed when students attain a qualifying end-of-course grade. Other programs require students to submit a formal request for credits to be transcribed, which can pose challenges when students are not aware of the need or process to submit a request. In high schools offering CTE Dual Credit through multiple colleges, students may not know which college offered their course and the process for requesting the credit can vary by college. Some colleges only require students to complete a request form. Other colleges also require students to apply for admission, submit official high school transcripts, and/or pay a fee.

State policy does not set a time limit for the award of college credit for CTE Dual Credit, leaving the decision up to the colleges and school districts. Typically, credit is transcribed in same year that the student has taken the CTE Dual Credit course. Some colleges that directly transcribe the credits when the course is completed, like Columbia Basin and Spokane, also allow students to request credit through a prior learning assessment if they decide to pursue credit later.

Community and technical colleges are in the process of transitioning to ctcLink, a systemwide software program with a host of functions, including the management of student transcripts. More than half of the colleges consulted for this study have implemented the system; the rest are in the process of doing so. SBCTC is developing guidance for colleges on transitioning to the ctcLink transcription process and exploring the system's capacity to support bulk transcription. SBCTC is also researching whether security restrictions in ctcLink can be adjusted to support the access needs of different users, such as teachers and college staff.

Some stakeholders expressed questions or concerns about the transferability of credits earned through CTE Dual Credit. State policy stipulates that courses articulated with one community or technical college must be accepted by other colleges for an equal amount of college credit but leaves it to the college to determine whether those credits transfer as general education, major requirements, or elective credits (RCW 28B.50.531). Secondary stakeholders indicated that information on how credits earned through dual credit might be accepted at other colleges other than the articulating college would be helpful when advising students.

Recommendations

Provide clear guidance on the transcription process: In colleges that do not offer direct transcription, stakeholders' responses suggest that different (or more) support is needed to ensure that students understand what credits they have earned and how to use them. To increase student awareness of credits earned through CTE Dual Credit, some colleges send students who have earned credits an unofficial transcript that shows what credits they have accumulated along with instructions for accessing their transcript if they choose to enroll in another institution.

Expand Professional-Technical Common Courses: P/TCCs or "ampersand courses" are courses that can be used to meet program requirements in any Washington community and technical college offering the course and program. Echoing national experts' recommendations for statewide articulation agreements (Advance CTE & Education Strategy Group, 2021), stakeholders observed that P/TCC courses offer greater flexibility for students and reduce the need for local articulation agreements, which can be time consuming to establish and maintain.

Student Participation in CTE Dual Credit

The final sections address two areas of the student experience in CTE Dual credit highlighted by national studies of dual credit and the stakeholders interviewed for this report: recruitment and advising and the impact of dual credit on postsecondary financial aid.

Recruitment and Advising

Washington high schools offer students five options to earn dual credit in addition to CTE Dual Credit programs: Advanced Placement, International Baccalaureate, Cambridge International, Running Start, and College in the High School (WSAC, 2017). Student recruitment is less of an issue for CTE than other credit programs for multiple reasons, including that CTE Dual Credit students do not need to apply or demonstrate their program eligibility—they take CTE offerings alongside high school students who may not be pursuing college credit for the same course. In addition, participation among different student groups is more equal for CTE than other dual credit programs statewide, although discrepancies may still exist at the district and school levels, and data on CTE Dual Credit attainment (as opposed to participation) is not available (WSAC, 2019).

In terms of advising, beginning in grades 7 or 8, Washington students work with counselors and advisors to complete a High School & Beyond plan that is updated through high school. Students' plans also indicate which of Washington's three graduation pathways they will pursue (OSPI, n.d.). Although the plan is required to include information about dual credit options, stakeholders observed that counselors sometimes assign students to CTE Dual Credit courses to fill elective credit or the one-credit CTE graduation requirements.

For some students, dual credit courses may provide an opportunity to explore a subject area that may not result in credits related to a future degree. Stakeholders expressed concern, however, about students earning postsecondary credits through CTE Dual Credit, sometimes at the behest of a parent or counselor, unrelated to their college and career goals and of no help in meeting nonelective degree requirements in college. In addition, some stakeholders observed that Washington's School Improvement Framework, which incentivizes dual credit attainment regardless of whether it is aligned to students' CTE programs or postsecondary plans, and college concerns about lost tuition revenues if students complete required courses prior to enrollment may also play a role in students earning credits of limited utility when they enter college.

Recommendations

Counselor and advisor training and guidance on CTE Dual Credit programs: Stakeholders suggested that training for high school advising staff could help students and families understand dual credit program and course options, making it more likely that the credits students earn will align with their education and career paths. While some high schools and colleges provide this advising well, stakeholders believed that guidance from OSPI and SBCTC on the information that should be shared and the hallmarks of strong dual credit advising is needed to ensure consistent, effective advising across programs across the state. This recommendation dovetails with recent findings on advising gaps in dual credit programs shared by WSAC (WSAC, 2020) and the advice of national experts, who recommend advising systems that combine guidance on course selection, coordinate advising across education levels, and connect students with tutoring and other supports (College in High School Alliance & Level Up, 2019; Mehl et al., 2020).

Enhanced advising might include a statewide career interest and skills inventory to help students identify fields of interest. While all students in grades 7 or 8 complete a career interest and skills inventory prior to creating their High School & Beyond plans, stakeholders in other states have observed the quality of the tools used vary. In response, some states have committed state funds to provide students access to high-quality career aptitude and exploration tools. A pilot study of a program in Georgia found that female and low-income students benefited most on measures of informed career decision making, self-empowerment and future confidence, engagement in career exploration activities, and intent to persist in a career pathway or postsecondary education or training (Engelman et al., 2016).

Indicate courses eligible for dual credit in high school course catalogs: Students and their families are sometimes unaware that they are eligible for college credit upon completion of a CTE course, provided they meet the minimum grade requirement. Stakeholders suggested a need for clearer information on which courses offer college credit. Indicating college credit opportunities in course guides or course guide supplements, as already practiced by some high schools, could reinforce information shared by program staff.

Share a wider range of options for using dual credit with students: Postsecondary stakeholders recommended providing students information on using their dual credit to meet degree requirements beyond their CTE pathway. Accounting 101, for example, could not only be applied to an accounting degree but to other business programs as well, and education majors may have the option to use agricultural CTE Dual Credit to meet the natural science credits required for their degrees. Indiana has developed and annually updates a CTE dual credit crosswalk for use by school personnel when advising students on coursework, graduation, and postsecondary planning. The crosswalk identifies technical dual credit courses offered by each CTE institution in the state that offers dual credit (Indiana Department of Education & Indiana Commission for Higher Education, 2021).

CTE Dual Credit and Student Financial Aid Eligibility

Some stakeholders believed that dual credit has little or no impact on postsecondary student financial aid eligibility, while others cautioned that credits earned in high school can affect the resources students can access when in college. According to members of the former group, students can work with financial aid officers to ensure that dual credits unrelated to their degree do not limit their financial aid eligibility, and some reported providing guidance for students to follow if the situation arises. They also observed that emphasizing such risks could dissuade the students who stand to benefit most from dual credit, such as low-income students or students with parents who did not attend college, from enrolling.

Stakeholders with concerns about the impact of dual credit on financial aid noted that appeals can burden students and financial aid officers, and that a positive outcome is not guaranteed. These stakeholders work with students and parents to ensure that implications of dual credit for financial aid are understood, with some asking parents and students to sign a form acknowledging their awareness of how dual credit can affect financial aid eligibility and/or discouraging students from claiming college credit unless certain it is applicable to a credential they want to pursue.

Guidance on the Running Start program issued by a group of state agencies in 2019 notes that the effects of dual credit on financial aid varies by aid type (OSPI, 2019b). Dual credit students are not currently eligible for state or federal financial aid for postsecondary education, so the effects described below are only relevant once a student enters college. Financial aid policy, however, has changed rapidly

in recent years, and more changes are anticipated. The U.S. Department of Education, for example, is currently concluding a study of using Pell Grants for dual credit that may influence future policy (U.S. Department of Education, 2016).

Federal financial aid: CTE Dual Credit does not affect eligibility for federal grants and loans for postsecondary education, which is based on individual or family income and family size. It can, however, influence aid amounts, because federal student loan programs permit higher awards for 2nd- and 3rd-year college students than for 1st-year students. Students with enough dual credits to qualify as 2nd-year students may be eligible for larger loans. Dual credit does not affect students' lifetime eligibility for the Pell Grant, which is capped at 12 semesters, but can affect the amount of time that a student is eligible for Federal Direct Subsidized Stafford loans, which is generally 150% of the published length of a student's program.

Washington College Grant Program: Dual credit does not apply to the 5-year limit for the new Washington College Grant program.[3] The maximum usage time frame of the grant is 5 full-time years (15 quarters or 10 semesters) or equivalent and only applies to the quarters in which a student received the grant**.** Because students cannot receive state financial aid to pay for college credits earned through dual credit, no course work taken in dual credit programs will apply to the grant program's maximum usage time frame. Additionally, students who earn an associate degree through dual credit programs can use the Washington College Grant toward another associate degree if they enroll in an aid-eligible program (WAC 250-21-011).

College Bound Scholarship: College Bound Scholars receive up 4 four years of funding to use within 5 years of high school graduation. Students must enroll in a college within 1 year of high school graduation; the 4-year funding limit applies regardless of whether students enroll part or full time or if they choose to take time off from school. The College Bound maximum terms of eligibility are 12 quarters or 8 semesters or the equivalent of full-time enrollment. Like the Washington College Grant, this full-time limit only applies to the quarters in which a student received the College Bound Scholarship, so no course work taken in dual credit programs will apply to the College Bound Scholarship eligibility limit.

College Bound Scholars must also enroll in college within 1 academic year following their high school graduation to be eligible. For example, a College Bound Scholar who graduated high school in the spring of 2021 would need to enroll in college by the fall term of 2022. College Bound Scholars who do not enroll in college within 1 year of high school graduation cannot receive the scholarship unless they completed transcripted college credit prior to high school graduation through a dual credit program such as CTE Dual Credit, Running Start, or College in the High School.[4] In this case, dual credit participation can help students access state financial aid because it fulfills the College Bound enrollment deadline, as in the following example:

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[3] Students who have completed their BA or BS degree are no longer eligible to receive federal Pell Grants, the Washington College Grant, or the College Bound Scholarship, even if they had not reached the full-time limits. College credits earned through dual credit programs may be applied to the BA or BS degrees and thereby shorten the time it takes to earn a BA or BS degree.

[4] Only course-based dual credit programs (CTE Dual Credit, Running Start, and College in the High School) count towards the College Bound Scholarship enrollment deadline. Advanced Placement, International Baccalaureate, and Cambridge International do not meet the enrollment deadline because the programs do not generate college transcripts.

- A College Bound Scholar completes a CTE Dual Credit course in senior year and receives college credit on a college transcript.

- The student graduates in the spring of 2021 having already met the College Bound enrollment deadline because the student was enrolled at a college for their CTE Dual Credit course.

- The student does not enroll in college until the fall term of 2023.

- The student is still eligible for College Bound Scholarship consideration because they met the enrollment deadline through CTE Dual Credit participation.

- However, the student still only has 5 years after high school graduation to use College Bound Scholarship funding, meaning they would only have 3 years of funding remain.

Satisfactory Academic Progress: For both state and federal financial aid, students must maintain Satisfactory Academic Progress (SAP). SAP review standards vary by institution, but all consider the maximum time frame rules and evaluate the successful completion of a minimum number of credits or clock hours (e.g., full-time enrollment is successfully completing 12 credits or 300 clock hours). Dual credit students should understand that all prior postsecondary coursework that generated a college transcript, including that taken through dual credit, will potentially be evaluated for SAP. Depending on the college or university's SAP policy, it may apply prior credits, including those earned through dual credit, towards the cumulative academic progress percentage. If students' dual credit coursework hurts their SAP evaluation, all Washington's colleges and universities have SAP appeals processes in place. Appeals and reinstatement polices vary by institution.

Recommendations

Provide clear guidance on the relationship between dual credit and financial aid eligibility: Stakeholders noted that the lack of clarity around financial aid eligibly might deter students and families, particularly from low-income backgrounds, from participating in a program that could increase their likelihood of attending and succeeding in college and reduce tuition costs. Opinions and approaches also vary by high school and college programs. A clear explanation that programs can post on their websites and guidance for high school and college staff on how all types of dual credit, including CTE Dual Credit, can affect financial aid could help improve the accuracy and consistency of the information provided. Guidance for students and families should also include information on the potential financial benefits of dual enrollment and effective ways to minimize risks.

Emerging Topics in Dual Credit

In addition to the policies and practices addressed in the prior sections, state-level stakeholders expressed an interest in learning about two areas of education with implications for dual credit. The first is **"badging," or micro-credentialing systems** that some states—including Colorado and Idaho—are introducing in CTE programs to recognize students' mastery of knowledge and skills. Badging is a proficiency-based alternative to traditional credentials and transcripts that ties credit or course hours to competency attainment. To explore the relevance of this topic for Washington, stakeholders were asked to indicate whether their CTE Dual Credit programs were using, converting, or considering badging and/or awarding credit for competency attainment.

No local stakeholders reported moving to a badging system to document students' skills, and the idea was new to one of the stakeholders interviewed. Stakeholders anticipated reluctance among colleges to award credit for some but not all competencies in a course, limiting the usefulness of badges for

meeting degree requirements or course prerequisites. If this challenge could be overcome, one stakeholder thought that badging could benefit rural districts that lack the staff needed to teach all competencies in a course.

The other topic, **comprehensive learner records**, are electronic systems for maintaining a record of grades, skills, and experiences (e.g., work-based learning) that travels with the student and is not owned by one entity, such as a school district or college. Comprehensive learner records have been posed as a solution to the challenge students and postsecondary staff face in obtaining accurate, comprehensive student transcripts that include data from all colleges that a student may have earned credit from.

While some stakeholders were interested in learning more and believed that the system had the potential to benefit students, some doubted the capacity for smaller school districts to participate without extensive technical support. Stakeholders also expressed concerns about the difficulty of planning and implementing a comprehensive learner record system. Because OSPI, SBCTC, the 4-year institutions, and Washington apprenticeships all operate separate data systems, even brokering agreements among the involved agencies would take considerable time.

Appendix A: Methodology

The information for this report was gathered through a review of state dual credit policies and other documentation in Washington and other states, a review of national reports and research on dual credit, interviews on CTE Dual Credit program practices with key stakeholders, a survey of CTE Dual Credit coordinators, workshops with CTE Dual Credit program staff, and feedback and recommendations provided the project leads and shared during facilitated discussions with the CTE Dual Credit advisory committee.

2022 CTE Dual Credit Project Activities

Research on Dual Credit Policies in Other States

Data collection in 2022 began with a review of dual credit policies and promising practices in five states comparable to Washington. In partnership with SBCTC staff, RTI identified states with statewide two-year college systems, relatively high dual credit enrollments in CTE subject areas, and relatively seamless dual credit experiences for students. The states selected for review were Colorado, Indiana, Iowa, North Carolina, and Iowa. The research on these states' dual credit programs examined dual credit reports and websites, national reports on dual credit policies and programs that included information on the selected states, and included interviews with state agency staff with oversight for dual credit programs. The results of the research were summarized in a set of PowerPoint slides that were presented to SBCTC and other state agency staff on February 16.

Advisory Committee

The CTE Dual Credit Project continued to work with the advisory committee in 2022. After a membership refresh in late 2021, RTI convened the committee to provide input on the 5-workshop series format and topics in January. Following the meeting, advisory committee members served as speakers on a variety of topics during the webinar series and joined the events as attendees. RTI also piloted the CTE Dual Credit Survey (see description below) with advisory committee members and used their feedback to update the survey before distributing the survey statewide.

CTE Dual Credit Workshops and Online Community of Practice

From March to May, the CTE Dual Credit Project held a series of five workshops, delivered as webinars, for secondary and postsecondary CTE dual credit staff throughout the state. The series was designed to provide a forum for the CTE Dual Credit program administrator community to share ideas and practices, introduce the community to the CTE Dual Credit Guidebook and other resources, and collect information on the community's challenges and needs going forward. Concurrently, RTI worked with SBCTC staff to develop a web-based hub using Microsoft Teams providing a centralized hub for CTE Dual Credit resources and a forum to posts and discussion questions and ideas. Based on this experience, SBCTC plans to explore options for using a different platform since Teams was not accessible for all community members.

Each webinar had from 30 to 60 attendees and included updates from state agency staff, presentations on information from the CTE Dual Credit Guidebook and research, sharing of promising practices by CTE Dual Credit coordinators, and small group discussions. The first webinar on March 22, introduced the series and the CTE Dual Credit project, oriented attendees to the Guidebook, and solicited feedback on topics for future webinars. Using a similar format, the next workshops covered the Guidebook's main topic areas, which are articulation (April 5), CTE Dual Credit program administration (April 19), and

student engagement and success (May 10). The wrap-up workshop held on May 24 summarized the feedback shared by practitioners through the series. In addition, state agency staff shared next steps and attendees were asked to discuss policy options for CTE Dual Credit.

CTE Dual Credit Survey

The CTE Dual Credit Project also collected information on CTE Dual Credit programs through a survey of secondary and postsecondary CTE Dual Credit coordinators administered from March to May. The survey covered a variety of topics that included the process used to establish articulation agreements, student barriers to participation and credit transcription, and postsecondary credit and grading practices for dual credit courses. The survey took about 15 minutes for respondents to complete, and was distributed to CTE Dual Credit staff through e-mail lists maintained by OSPI and SBCTC. Staff members from the agencies also assisted with follow-up. The survey had 72 respondents (50 from secondary and 22 from postsecondary). Although the responses represented a relatively small proportion of dual credit program staff, the findings echo and reinforce those that emerged through the 2021 interviews with CTE Dual Credit staff and feedback provided through the CTE Dual Credit advisory commitment and the workshop series attendees.

Limitations

This report does not address the impact of the COVID-19 pandemic on CTE dual credit. As the report was bring prepared, limits on in-person instruction in response to the COVID-19 pandemic were rare and studies examining the impact of the COVID-19 on dual credit just emerging. Initial evidence suggests that enrollments in dual credit programs declined with COVID-19, but at a lower rate than for undergraduate enrollments (National Student Clearinghouse 2021). Nationally, program staff reported changes in their programs during the pandemic, such as relaxed eligibility requirements and increased online instruction, but the likelihood of such changes continuing is still unclear (College in High School Alliance 2022).

The pandemic limited the project's ability to collect student data. The focus of the research was on CTE Dual Credit programs staff, who spoke about students' experiences in their programs. Ideally, future research could examine how students experience CTE and other dual credit programs, and the recommendations updated to reflect their perspectives. Finally, the data collected through this project do no provide a statistically representative of CTE Dual Credit programs. To validate its conclusions, the research team used multiple data sources and triangulated the research findings, and strove to include CTE dual credit programs from different settings (tribal, rural, technical high schools) in the project. However, the results may not be equally applicable to all programs statewide.

2021 Activities and Data Collection

Advisory Committee

In tandem with launching the interviews process, the team and project leads assembled a 22-member advisory committee representing state/regional, secondary, and postsecondary CTE Dual Credit stakeholders (see list in Appendix B). The project leads distributed the advisory committee invitation to statewide email lists and the project leads selected the members to ensure representation of the staff roles, institution types, and regions engaged in CTE Dual Credit. During the research phase, advisory committee members reviewed the interview questions, assisted in identifying relevant state policies, and provided feedback on the initial interview findings. Advisory committee members also offered

recommendations for K–12 and postsecondary interviewees and examples of local CTE Dual Credit resources to be included in a forthcoming guidebook and online trainings.

State Policy Research and Analysis

The review of Washington State's dual credit policy leveraged a recent state-by-state review of dual credit policy (Education Commission of the States, 2013). The RTI team used Westlaw, an online, subscription-based legal research platform, to identify changes to RCWs and WACs since 2019, as well as CTE-specific policies not captured by the ECS. The team also reviewed the Washington SBCTC's Policy Manual, as well as dual credit and CTE pages on the OSPI, WSAC, and SBCTC websites for relevant policy and programmatic content.

Interviews

In partnership with the project leads, the RTI team identified 29 secondary, postsecondary, and state-level stakeholders for one-hour interviews. State-level stakeholders included representatives of OSPI, WSAC, SBCTC, Core Plus, and Washington STEM. Criteria for selecting districts and colleges for interviews included location (urban, suburban, and rural), geographic region, size, student population characteristics (relative socioeconomic status; representation of Native American and other racial/ethnic groups), and CTE Dual Credit participation rates. Interviewees (referred to from this point on as "stakeholders") were interviewed using an interview protocol developed by the team and vetted by the project leads and advisory committee. The interview protocol queried K–12 and postsecondary stakeholders on CTE Dual Credit challenges/concerns (in local programs) and best practices (in their program or elsewhere in the state) on topics. The protocol also addressed SERS, the dual credit coordinator position, program fees, student recruitment and engagement, grading, articulation standards, pathway or program of study mapping, partnership development, and skills centers. State-level stakeholders were queried about their concerns/challenges and any local best practices on these topics in the interview protocol.

Student Interviews

Although the original research plan included interviews and focus groups with students, due to COVID-19 related disruptions, RTI was only able to conduct three interviews. Although few, the interviews provided insights into students' awareness and understanding of Washington's different dual credit programs, and students' experiences in applying credits earned in high school to college programs. RTI recommends that the next phase of this project (post COVID-19) continue to collect information from students on their CTE Dual Credit experiences. The research should explore how students learn about dual credit opportunities, their understanding of the benefits and risks of these programs, their motivations for taking CTE Dual Credit courses (or reasons for not doing so), and if and how they applied the credits to a postsecondary program.

Appendix B: CTE Dual Credit Project 2021 Advisory Committee Members

State or Regional Level
Bill Belden, Policy Associate, Workforce Education, Washington State Board for Community and Technical Colleges
Sue Kane, Director of Science, Technology, Engineering, and Math (STEM) Initiatives, North Central Education Services District
Renee Lafreniere, Career and Technical Education (CTE) Pathways Program Coordinator, Washington State Office of Superintendent of Public Instruction
Clarisse Leong, Operations Manager, Washington State Office of Superintendent of Public Instruction
Tim McClain, Program Administrator, Workforce Education, Washington State Board for Community and Technical Colleges
Amelia Moore, Assistant Director of Policy and Planning, Washington Student Achievement Council
Jamie Traugott, Policy Associate, Washington State Board for Community and Technical Colleges
Becky Wallace, CTE Director, Washington State Office of Superintendent of Public Instruction

Secondary
Christi Kershaw, Teacher and CTE Director, Elma High School
Jerry Maher, CTE and SEATech Skills Center Director, Walla Walla Public Schools
Will Sarett, Director, Career and College Readiness, Yakima School District
Kevin Smith, CTE Director, Renton School District
Mark Wreath, CTE Director, Vancouver Public Schools

Postsecondary
Rachel Andre, Manager, Career and Technical Education Dual Enrollment & High School Initiatives, Seattle Colleges
Jessica Dempsey, Dual Enrollment Manager, Spokane Community College
Georgia Elgar, CTE Dual-Credit Program Specialist 3 for Pierce County Careers Connection
Nicole Faber, Outreach Manager, Lower Columbia College
Krista Fox, Dean of Instruction, Professional Technical Education Tacoma Community College
Keeley Gant, Director of CTE Dual Credit and College in the High School, Columbia Basin College
Marjie Stratton, Program Coordinator, Workforce Education, Grays Harbor College
William Stuflick, Dean, Business and Applied Technology, Everett Community College
Amy West, Program Specialist, PNW College Credit

Appendix C: Secondary and Postsecondary CTE Dual Credit Interview Protocol (2021)

K-12 or college staff
1: SERS

Does your CTE Dual Credit program use SERS or another data collection/reporting platform?
• If another platform
    o What is it?
    o [For college-embedded interviewees] Is it proprietary to your college?
    o [For college-embedded interviewees] Do you know why your program is using this platform instead of SERS?
    o (If not answered by the previous question): What are the strengths, weaknesses of the platform you are using?
• If SERS
    o What, if any, aspects of SERS are working well for your CTE Dual Credit program?
    o What, if any, aspects of SERS are working less well for your CTE Dual Credit program?

Would you be receptive to a requirement that all CTE Dual Credit programs in the state use a single statewide data collection/reporting platform, either an enhanced version of SERS or another platform?
• If yes:
    o What, if any, functions would you want to retain from your existing data platform?
    o What, if any, enhancements over your existing data platform would you like the new system to have?
• If no: Why not?

Any **best practices** in data collection/reporting – from your CTE Dual Credit program or other programs you are aware of – that you would like to highlight?
2: Dual credit coordinator position
What is the staff position of the individual in your HS/district/college who serves as the CTE Dual Credit coordinator?
Is this a full time or part-time position?
What percentage of this staff person's time is committed to CTE Dual Credit coordination as opposed to other responsibilities?
What additional duties fall under this person's purview (e.g., Do they also oversee Running Start? College in the HS? CTE programming generally?)
What is the funding source/what are the funding sources to cover this position? (e.g., Perkins? Student fees? Pooling resources from multiple colleges? College's general operating budget?, etc.)
Any **best practices** in covering the dual credit coordinator position – from your CTE Dual Credit program or other programs you are aware of – that you would like to highlight?
3: Funding the program
What, if any, expenses (e.g., student fees) does your college charge/does your school or school district pay your partnering college under your CTE Dual Credit articulation agreement?
Any best practices in funding CTE Dual Credit programs from your CTE Dual Credit program or other programs you are aware of that you would like to highlight?
4: Student recruitment/engagement
Talk to me about what, if any, challenges your CTE Dual Credit program is experiencing in…

CTE Dual Credit awareness among students/families *(including, but not limited to, differentiating the features/benefits of CTE Dual Credit, Running Start, and College in the HS)*
For college-embedded interviewees: Notifying qualifying students upon course completion that: • They are eligible to receive (or have received) college credit • They have a college transcript
For college-embedded interviewees: Recruiting/matriculating students at your college after HS • And in the career cluster in which they earned college credit through CTE Dual Credit
Are you aware of any negative financial aid implications for CTE Dual Credit students? • If yes: When do you communicate with students about the financial aid implications of CTE Dual Credit participation?
Any best practices in student recruitment/engagement from your CTE Dual Credit program or other programs you are aware of that you would like to highlight?
5. Enrollment/transcription
What is your program's process for the transcription of college credit earned through CTE Dual Credit, and when is credit transcribed? (e.g., automatic transcription upon course completion with a minimum grade, student needs to request that college credit be transcripted, student needs to complete a quarter at the college, etc.)
What to your mind is working well or less well with your process?

For college-embedded interviewees: Has your college transitioned to ctcLink?
• If yes:
    o Has your process for transcription changed?
    o Do you need resources for this?

Is your CTE Dual Credit program converting/considering converting/has converted to a competency-based approach, with "badges" awarded to document skills students have mastered?
Increasingly, districts and colleges are looking at a "Comprehensive Learner Record" approach, in which all grades, skills and experiences (e.g., work-based learning) are captured on a separate tool that travels with the student and is not owned by one entity such as the school district or college. Would your program be receptive to using a Comprehensive Learner Record – for dual credit students or students generally?
Any best practices in enrollment/transcription, from your CTE Dual Credit program or other programs you are aware of that you would like to highlight?
6. Grading
What is the minimum course grade that a student needs to earn to receive college credit for a CTE Dual Credit course in your program?
If a course is part of a course sequence (e.g., Culinary I and Culinary II), does a student need to earn a minimum score in both courses to earn college credit in one of the courses, or are the grades averaged at the end of the sequence?
What is the minimum grade a regularly matriculated student needs to earn college credit in the same course at the college campus?
[For college-embedded interviewees] Has your CTE Dual Credit program experienced any challenges in obtaining teacher grades at the end of an academic term? • If so, how has your program addressed these challenges? (e.g., what does your school do if a teacher leaves for the summer without submitting student grades to the college)
Would your program be receptive to a requirement that all CTE Dual Credit programs use a single statewide grading policy? • Why or why not?

Any best practices in grading – from your CTE Dual Credit program or other programs you are aware of – that you would like to highlight?
7. Articulation standards
I understand there are differences across CTE Dual Credit programs in the courses that are designated professional-technical courses, and that sometimes college faculty are reluctant to allow a specific course to be offered for CTE Dual Credit, resulting in confusion when districts are communicating about CTE Dual Credit offerings to students and their families. In your CTE Dual Credit program, what, if any, are some of the issues that arise when deciding whether a course can be offered for CTE Dual Credit, or if it can only be offered as a College in the HS course?   To what extent has your program experienced challenges with alignment of CIP codes?
What qualifications must HS teachers meet to teach CTE Dual Credit courses in your program?
Would your program be receptive to statewide standards that designate courses that may be offered for CTE Dual Credit?   • Why or why not?
Would your program be receptive to statewide standards or requirements setting qualifications a high school instructor must meet to teach specified CTE Dual Credit courses?   • Why or why not?
Any best practices in setting articulation standards – from your CTE Dual Credit program or other programs you are aware of – that you would like to highlight?
8. Pathway or Program of Study Mapping
[For K-12-embedded interviewees] Whose responsibility is it to complete CTE Dual Credit students' Program of Study documents for OSPI?
What criteria must an offering meet in your district/at your institution to qualify as a "pathway" or "program of study"?
Who makes the determination in your district/at your institution that an offering meets these criteria?
Would your CTE Dual Credit program be receptive to a state-level process for approving a local program of study?   • Why or why not?
Any best practices in pathway or program of study mapping – from your CTE Dual Credit program or other programs you are aware of – that you would like to highlight?
9. Partnership development
What, if any, challenges has your CTE Dual Credit program experienced in establishing partnerships with local business/industry, and aligning CTE programs to industry and labor market demands?
Is industry heavily involved in any pathways in your CTE Dual Credit program, through either Career Connected Learning or Career Launch?   • If yes: In what ways is industry heavily involved?
How, if at all, is your CTE Dual Credit program leveraging the comprehensive local needs assessment requirement under *Perkins V* to enhance partnership development?
For college-embedded interviewees: Is your institution committing Perkins funds to stakeholder engagement activities?
What, if any challenges, has your CTE Dual Credit program experienced in facilitating collaboration between HS teachers and PS faculty in the development of courses, communicating course expectations, PS faculty mentoring HS teachers, etc.?
Any best practices on any of these aspects of partnership development – from your CTE Dual Credit program or other programs you are aware of – that you would like to highlight?

10. Skills centers
I understand Washington has a small number of skills centers. Any challenges these centers encounter when offering CTE Dual Credit?
Any best practices in skills centers' offering of CTE dual credit – that may or may not inform best practice by comprehensive high schools – that you would like to highlight?
11. Anything else?
Any other CTE Dual Credit issues we have not discussed today that you would like the guidebook and/or online trainings to address?
12. Recommendations?
Templates you would recommend for any of the following (either from your CTE Dual Credit program or another CTE Dual Credit program)? • Articulation agreements • Teacher verification forms • Program of Study documents • Teacher certification requirements • Pathway marketing materials for students and families
Other K-12 or college-embedded CTE Dual Credit staff you would recommend I interview?
Any current (for HS) or former (for college) CTE Dual Credit students you would recommend I include in a student focus group this month?

Appendix D: Additional Washington State Policies Applicable to CTE Dual Credit

Topic	Policy or Other Guidance
Course requirements	"All approved preparatory secondary career and technical education programs must meet the following minimum criteria: (1) Either: (a) Lead to a certificate or credential that is state or nationally recognized by trades, industries, or other professional associations as necessary for employment or advancement in that field; or (b) Allow students to earn dual credit for high school and college through tech prep, advanced placement, or other agreements or programs; (2) Be comprised of a sequenced progression of multiple courses that are technically intensive and rigorous; and (3) Lead to workforce entry, state or nationally approved apprenticeships, or postsecondary education in a related field." *RCW 28A.700.030*
High school CTE performance measures	(1) The office of the superintendent of public instruction shall establish performance measures and targets and monitor the performance of career and technical education programs in at least the following areas: (a) Student participation in and completion of high-demand programs as identified under RCW 28A.700.020; (b) Students earning dual credit for high school and college; and © Performance measures and targets established by the workforce training and education coordinating board, including but not limited to student academic and technical skill attainment, graduation rates, postgraduation employment or enrollment in postsecondary education, and other measures and targets as required by the federal Carl Perkins act, as amended. (2) If a school district fails to meet the performance targets established under this section, the office of the superintendent of public instruction may require the district to submit an improvement plan. If a district fails to implement an improvement plan or continues to fail to meet the performance targets for three consecutive years, the office of the superintendent of public instruction may use this failure as the basis to deny the approval or reapproval of one or more of the district's career and technical education programs. *RCW 28A.700.040*
Agreements permitted with secondary partners outside a college's service area	"Community and technical colleges may create dual credit agreements with high schools and skill centers that are located outside the college district boundary or service area." *RCW 28B.50.531(3)*
Recognition of dual credit for transfer credit	"If a community or technical college has created an agreement with a high school or skill center to offer college credit for a secondary career and technical course, all community and technical colleges shall accept the course for an equal amount of college credit." *RCW 28B.50.531(4)*

Topic	Policy or Other Guidance
Data collection and reporting	"(1) The office of the superintendent of public instruction, in collaboration with the state board for community and technical colleges, the Washington state apprenticeship and training council, the workforce training and education coordinating board, the student achievement council, the public baccalaureate institutions, and the education data center, shall report by September 1, 2010, and annually thereafter to the education and higher education committees of the legislature regarding participation in dual credit programs. The report shall include: (a) Data about student participation rates and academic performance including but not limited to Running Start, College in the High School, Tech Prep, international baccalaureate, advanced placement, and Running Start for the Trades; (b) Data on the total unduplicated head count of students enrolled in at least one dual credit program course; and © The percentage of students who enrolled in at least one dual credit program as percent of all students enrolled in grades 9 through 12. (2) Data on student participation shall be disaggregated by race, ethnicity, gender, and receipt of free or reduced-price lunch." *RCW 28A.600.280* In addition, "In addition to data on student enrollment in dual credit courses, the office of the superintendent of public instruction shall collect and post on the Washington state report card web site the rates at which students earn college credit through a dual credit course, using the following criteria: … Students who satisfy the dual enrollment and class performance requirements to earn college credit through a tech prep course" *RCW 28A.300.560(5)*
Academic acceleration incentive program	Would seem to be applicable to CTE dual credit although the statute still references "tech prep" *RCW 28A.320.196*
Academic acceleration for high school students	Ditto *RCW 28A.320.195*
Financial aid	"Monies in the [Institutional Financial Aid Fund] shall be used for student financial aid …. Locally administered need-based grants, tuition scholarships and institutional employment programs for needy, resident students, or a financial aid program for high school students enrolled in a dual credit program to cover expenses including, but not limited to, tuition, fees, course materials, and transportation. The moneys in this fund shall not be used for college operating expenses." *WAC 131-36-055; also see WAC 131-36-100, RCW 28B.15.820*
Advising on future impact of dual credit on financial aid eligibility	"The superintendent of public instruction and the office of student financial assistance shall develop advising guidelines to assure that students and parents understand that college credits earned in high school dual credit programs may impact eligibility for financial aid." *RCW 28A.600.285*

Topic	Policy or Other Guidance
	Registered preapprenticeship and youth apprenticeship recommendations by Nov. 2018 *RCW 28A.300.900*
	Dual credit in high school and beyond plans *RCW 28A.230.090*
Dual credit in broader CTE awareness campaigns	"1) Subject to funds appropriated for this purpose, the office of the superintendent of public instruction shall develop and conduct an ongoing campaign for career and technical education to increase awareness among teachers, counselors, students, parents, principals, school administrators, and the general public about the opportunities offered by rigorous career and technical education programs. Messages in the campaign shall emphasize career and technical education as a high-quality educational pathway for students, including for students who seek advanced education that includes a bachelor's degree or beyond. In particular, the office shall provide information about the following: (a) The model career and technical education programs of study developed under RCW 28A.700.060; (b) Career and technical education course equivalencies and **dual credit** for high school and college; © The availability of scholarships for postsecondary workforce education, including the Washington award for vocational excellence, and apprenticeships through the opportunity grant program under RCW 28B.50.271, grants under RCW 28A.700.090, and other programs; and (d) Education, apprenticeship, and career opportunities in emerging and high-demand programs. (2) The office shall use multiple strategies in the campaign depending on available funds, including developing an interactive web site to encourage and facilitate career exploration; conducting training and orientation for guidance counselors and teachers; and developing and disseminating printed materials. (3) The office shall seek advice, participation, and financial assistance from the workforce training and education coordinating board, higher education institutions, foundations, employers, apprenticeship and training councils, workforce development councils, and business and labor organizations for the campaign." *RCW 28A.700.080*

Appendix E: 2022 CTE Dual Credit Survey

Survey Purpose: You are receiving this survey because you coordinate CTE Dual Credit opportunities. The feedback collected through this survey will:

- Identify challenges in CTE Dual Credit programs,
- Inform the development of recommendations for addressing them, and
- Provide ideas and examples for guidebooks and resources on CTE Dual Credit to support local programs.

Your voice is important for this work, and we appreciate the time you are taking to respond. Your participation is entirely voluntary, and you may discontinue your participation at any time.

Privacy: Seattle Colleges and the State Board of Community and Technical Colleges have asked RTI International, a nonprofit research institute, to conduct the survey. RTI will keep your responses private and store and share identifying information separately from your answers. RTI may follow up with you about your answers to some of the questions.

Contact: If you have questions or concerns about this survey, please contact Laura Rasmussen Foster at lrasmussen@rti.org.

By beginning the survey, you acknowledge that you have read this information and agree to participate, with the knowledge that you are free to withdraw your participation at any time.

Contact/Introductory Information (all respondents)
1. For how many years have you coordinated CTE Dual Credit? (Less than 1 year; 1-2 years; 3-5 years; 5-10 years; more than 10 years)
2. What is your job title?
3. What is the name of the institution or consortium that you work for?
4. What is your first and last name?
5. What is your e-mail address in case we need to follow up with you?
6. Do you coordinate CTE Dual Credit at the (note: if you represent a consortium or both secondary and postsecondary, please select postsecondary):
    a. Secondary education level
    b. Postsecondary education level

Secondary Questions

7. What time of year do you typically start the process for establishing new articulation agreements?
   a. Sept-Dec
   b. January-May
   c. June-August
   d. Throughout the year
8. How many months are typically required to establish an articulation agreement?
   a. 1 month or less
   b. 2-3 months
   c. 4-6 months
   d. More than 6 months but less than 1 year
   e. More than 1 year
9. CTE Dual Credit program staff have identified the following steps for setting up a new articulation agreement:
   - *Reach out to the dual credit coordinator and/or faculty teaching the equivalent course at the college that you would like to articulate.*
   - *Check the Statewide Enrollment and Reporting System to find existing articulation agreements for CTE Dual Credit courses between your school and the college.*
   - *Confirm that the course is part of a Program of Study or career pathway at the college.*
   - *Complete any necessary forms and approvals to request articulation as required by your school or the partnering college.*

   a. Please briefly describe any steps that are missing from this list and note after which of the steps listed each should occur. If no steps are missing, please answer "none."
10. Please list any CTE courses that you would like to articulate for CTE Dual Credit but cannot because they are not regarded as CTE by the college. If none, please answer "none."
11. Which of the following pose persistent challenges to developing articulation agreements for CTE Dual Credit?
    a. Deadlines/schedule conflicts between my institution and the college
    b. Forms/processes are complicated and time consuming
    c. Lack of interest or responsiveness from partnering institution
    d. Challenges in meeting course learning outcomes or articulation requirements
    e. Lack of the college course content information needed to set up an agreement
    f. Identifying a qualified high school instructor to teach the class
    g. Inability or lack of interest from the postsecondary side to make changes for course alignment
    h. Inability or lack of interest from the secondary side to make changes for course alignment
    i. Other (please specify)
    j. I have not encountered any persistent challenges
12. Have you encountered persistent challenges in establishing and or maintaining CTE Dual Credit articulation agreements with multiple colleges?
    a. No, I only have articulation agreements with one college
    b. No, I have not encountered any significant challenges
    c. Yes, please explain

13. When do secondary/postsecondary instructors meet to discuss CTE Dual Credit course competencies and outcomes?
    a. When new articulation agreements are established
    b. As needed when articulated courses require updates
    c. Annually as part of a review process
    d. Every two to three years as part of a review process
    e. Other (please specify)
14. Which of the following strategies do you use to prepare administrators working with CTE Dual Credit and high school teachers to offer CTE Dual Credit courses?
    a. Virtual or in-person training sessions
    b. Instructional videos
    c. One-on-one support provided by staff with experience in CTE Dual Credit
    d. In-house guides and resources on CTE Dual Credit policies and practices
    e. Other (please specify)
15. Please provide a link (or links) for your institution's CTE Dual Credit resources or policy/practice documents that are available online.
16. Who pays for books or other materials that students need for CTE Dual Credit courses?
    a. Students/families
    b. School or district
    c. Consortia
    d. College
    e. Other (please specify)

17. What student supports have most helped students' engagement and success in CTE Dual Credit courses?
    a. CTE Dual Credit-specific advising
    b. Tutoring
    c. Student and parent information nights
    d. On-campus tours
    e. College signing days
    f. Accessibility resources
    g. Other (please specify)
18. What supports would you like to offer CTE Dual Credit students, but do not have the resources or capacity to provide? (please specify)

19. What are the most common reasons that students do not pursue or transcribe postsecondary credit for their CTE Dual Credit courses? Choose all that apply.
    a. Lack of awareness of credit eligibility
    b. Lack of awareness of benefits or how credit can be applied to their education
    c. Credits not relevant to post-high school plans
    d. Change to post-high school plans after taking the course
    e. Courses taken to explore subjects different from intended college major or program
    f. Fees and other costs
    g. Concerns about impact of dual credit on postsecondary financial aid
    h. Other (please specify)

20. Which of the following aspects of your CTE Dual Credit program and courses do you think works particularly well? (Select all that apply)
    a. Establishing new articulation agreements
    b. Working with partners to align course content for articulation agreements
    c. Providing students and families with information about dual credit education pathways
    d. Student recruitment
    e. Student enrollment/registration process
    f. Follow-up with students eligible for CTE Dual Credit on utilization of credits
    g. Credit transcription process for students
    h. Data collection and reporting
    i. Onboarding of new staff or instructors involved in CTE Dual Credit
    j. Equity in access to CTE Dual Credit courses and resources across student groups and programs
    k. Working with partners to develop education pathways with multiple dual credit courses
    l. Completing Program of Study documentation and reporting for SBCTC or OSPI
    m. Other (please specify)
21. Would you be willing to share your practices/resources or present on your approaches related to the topics selected above? (Yes, No)
22. In which areas are you most in need of support from the Office of Superintendent of Public Instruction (OSPI) or the State Board of Community and Technical Colleges (SBCTC)? (Select up to 3)
    a. Establishing new articulation agreements
    b. Working with partners to align course content for articulation agreements
    c. Providing students and families with information about dual credit education pathways
    d. Student recruitment
    e. Student enrollment/registration process
    f. Follow-up with students eligible for CTE Dual Credit on utilization of credits
    g. Credit transcription process for students
    h. Data collection and reporting
    i. Onboarding of new staff or instructors involved in CTE Dual Credit
    j. Equity in access to CTE Dual Credit courses and resources across student groups and programs
    k. Working with partners to develop education pathways with multiple dual credit courses
    l. Completing Program of Study documentation and reporting for SBCTC or OSPI
    m. Other (please specify)

Postsecondary Questions
23. How often are CTE Dual Credit articulation agreements typically renewed?
    a. Annually
    b. Every 2 years
    c. Every 3 years
    d. Varies by program area
24. CTE Dual Credit program staff have identified the following steps for setting up a new articulation agreement:
    - *Reach out to the dual credit coordinator and/or faculty teaching the equivalent course at the college that you would like to articulate.*
    - *Check the Statewide Enrollment and Reporting System to find existing articulation agreements for CTE Dual Credit courses between your school and the college.*

- *Confirm that the course is part of a Program of Study or career pathway at the college.*
- *Complete any necessary forms and approvals to request articulation as required by your school or the partnering college.*
    a. Please briefly describe any steps that are missing from this list and note after which of the steps listed each should occur. If no steps are missing, please answer "none."

25. Which of the following pose persistent challenges to developing articulation agreements for CTE Dual Credit?
    k. Deadlines/schedule conflicts between articulating institutions
    l. Forms/processes are complicated and time consuming
    m. Challenges with high school courses in meeting course learning outcomes or articulation requirements
    n. Identifying a qualified high school teacher to teach the class
    o. Other (please specify)
    p. I have not encountered any persistent challenges

26. When do secondary/postsecondary instructors meet to discuss CTE Dual Credit course competencies and outcomes?
    q. When new articulation agreements are established
    r. As needed when articulated courses require updates
    s. Annually as part of a review process
    t. Every two to three years as part of a review process
    u. Other (please specify)

27. Which of the following strategies do you use to prepare administrators working with CTE Dual Credit and high school teachers to offer CTE Dual Credit courses?
    a. Virtual or in-person training sessions
    b. Instructional videos
    c. One-on-one support provided by staff with experience in CTE Dual Credit
    d. In-house guides and resources on CTE Dual Credit policies and practices
    e. Other (please specify)

28. Please provide a link (or links) for your institution's CTE Dual Credit resources or policy/practice documents that are available online.

29. What staff positions at your college review and approve CTE Dual Credit articulation agreements? Please list.

30. Do your articulation agreements follow the credit conversion standard outlined in WAC 180-51-050 (5 quarter/3 semester college hours = 1 HS credit)?
    a. Yes, we follow the standard
    b. We do not always follow the standard, but determine credit amounts by (please provide a brief description)

31. Relative to the number of credits college students earn for a CTE course, how many credits does your institution typically award secondary students for CTE Dual Credit classes?
    a. The same number of credits as regularly matriculated students
    b. More credits than for regularly matriculated students
    c. Fewer credits than for regularly matriculated students
    d. Varies by course
    e. Varies by articulation

32. What is the minimum course grade a student needs to attain to receive college credit for a CTE Dual Credit course? Please provide the letter grade.

33. Which of the following best characterizes your CTE Dual Credit transcription process?
    a. Automatic transcription for all students with passing grades who have registered for postsecondary credit
    b. At student request, <u>with</u> email or other outreach to eligible students
    c. At student request, <u>without</u> outreach to eligible students
    d. Other (please specify)

34. How are school district and skill center fees (excluding any fees charged to students) for CTE Dual Credit assessed?
    a. No fees assessed
    b. Flat fee
    c. Fee per articulation
    d. Fee per course
    e. Fee based on high school CTE FTE
    f. Other (please specify)

35. On average, what amount do students have to pay for a CTE Dual Credit Course (including any fees associated with credit transcription)? If students do not have to pay, please enter 0.

36. What are the most common reasons that students do not pursue or transcribe postsecondary credit for their CTE Dual Credit courses? Choose all that apply.
    a. Lack of awareness of credit eligibility
    b. Lack of awareness of benefits or how credit can be applied to their education
    c. Credits not relevant to post-high school plans
    d. Change to post-high school plans after taking the course
    e. Courses taken to explore subjects different from intended college major or program
    f. Fees and other costs
    g. Concerns about impact of dual credit on postsecondary financial aid
    h. Other (please specify)

37. Which of the following aspects of your CTE Dual Credit program and courses do you think works particularly well? (Select all that apply)
    n. Establishing new articulation agreements
    o. Working with partners to align course content for articulation agreements
    p. Providing students and families with information about dual credit education pathways
    q. Student recruitment
    r. Student enrollment/registration process
    s. Follow-up with students eligible for CTE Dual Credit on utilization of credits
    t. Credit transcription process for students
    u. Data collection and reporting
    v. Onboarding of new staff or instructors involved in CTE Dual Credit
    w. Equity in access to CTE Dual Credit courses and resources across student groups and programs
    x. Working with partners to develop education pathways with multiple dual credit courses
    y. Completing Program of Study documentation and reporting for SBCTC or OSPI
    z. Other (please specify)

38. Would you be willing to share your practices/resources or present on your approaches related to the topics selected above? (Yes, No)
39. In which areas are you most in need of support from the Office of Superintendent of Public Instruction (OSPI) or the State Board of Community and Technical Colleges (SBCTC)? (Select up to 3)
    a. Establishing new articulation agreements
    b. Working with partners to align course content for articulation agreements
    c. Providing students and families with information about dual credit education pathways
    d. Student recruitment
    e. Student enrollment/registration process
    f. Follow-up with students eligible for CTE Dual Credit on utilization of credits
    g. Credit transcription process for students
    h. Data collection and reporting
    i. Onboarding of new staff or instructors involved in CTE Dual Credit
    j. Equity in access to CTE Dual Credit courses and resources across student groups and programs
    k. Working with partners to develop education pathways with multiple dual credit courses
    l. Completing Program of Study documentation and reporting for SBCTC or OSPI
    m. Other (please specify)
40. Please list any other staff or partners you'd like to recommend for this survey. Include their email address(es) if you'd like us to reach out directly.
41. Thank you for your response to this survey! Please help us improve by sharing your feedback. We also welcome your ideas and recommendations for improving CTE Dual Credit that this survey didn't capture.

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