

Annual Report on Dual Credit, 2024

Enrollment, Credit Earning, and Access



Authorizing Legislation:

RCW 28A.600.280: Dual credit programs

Education Research and Data Center

Forecasting and Research Division Office of Financial Management



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About the ERDC

The research presented here uses data from the Education Research and Data Center, located in the Washington Office of Financial Management. ERDC works with partner agencies to conduct powerful analyses of learning that can help inform the decision-making of Washington legislators, parents, and education providers. ERDC's data system is a statewide longitudinal data system that includes deidentified data about people's preschool, educational and workforce experiences. In fiscal year 2019, ERDC was awarded a five-year Statewide Longitudinal Data System (SLDS) Grant, which involves using our data system to examine educational equity issues in Washington's public educational systems. ERDC is one of 28 grantees across the country who are participating in the FY 2019 SLDS Grant Program.

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Executive summary

Dual credit courses give high school students the potential to earn both high school and postsecondary credit. Past research shows that students who participate in dual credit have higher rates of postsecondary education enrollment, persistence, and completion. There are six primary dual credit programs in Washington state that are included in this report (see Table 1), which provide students with different pathways to participate and different processes to become eligible for postsecondary credit (see Appendix B). This variation must be considered when interpreting the results in this report and dashboard.

This report and accompanying dashboard address the requirements in RCW 28A.600.280, which directs ERDC to complete the report in collaboration with the Office of the Superintendent of Public Instruction, State Board of Education, State Board for Community and Technical Colleges, Washington State Apprenticeship and Training Council, Workforce Training and Education Coordinating Board, Washington Student Achievement Council, and the state's public four-year institutions of higher education.

While the dashboard focuses on the required metrics of dual credit enrollment and K–12 credit earned, this report examines new analysis for the required metrics of K–12 academic performance and postsecondary credit earning. It also addresses previous report recommendations and introduces additional topics for analysis. This year's additional topic is a discussion of the current state of availability of dual credit by school district and how that has changed over time.

This document has two primary sections. First, new analysis related to dual credit in Washington is presented. Then, the recommendations from previous ERDC dual credit reports are addressed.

Key findings:

1) In 2021–22, most public high schools in Washington offered at least one type of dual credit; indicating that there were very few geographic areas where students have no access to dual credit. The number of schools that offer dual credit increased in some districts between 2015–16 and 2021–22, and decreased in others. During this time, student enrollment in dual credit increased, with the majority of districts experiencing growth. Many districts had 80%–100% of students enrolled in at least one dual credit course and there were very few districts in which less than 20% of students enrolled in at least one dual credit course. This may be influenced by graduation requirements.

What's New in this Report

- Updated <u>Dual Credit Dashboard</u> on ERDC's website
- Updated recommendations for 2025 Report
- Spotlight on access to dual credit across K–12 districts
- Descriptive analysis of K–12 academic performance and postsecondary credit earning
- Key findings from two ERDC research briefs on postsecondary education enrollment and credential outcomes among students who enrolled in dual credit

- 2) Across all dual credit types, 91% of all attempted credits were earned, which was about the same as non-dual credit courses for all students. Students who enrolled in any of the dual credit types had a higher final GPA than those who did not enroll. Academic performance was examined by student group and the patterns among dual credit enrollees were similar to those seen statewide.
- 3) The quality of existing data sources has improved over the last year, but there are still large gaps in data that are needed to determine how many students are eligible for postsecondary credit after completing a dual credit course. For most dual credit types, the percentage of students who had postsecondary credits transcribed at a Washington public institution has remained fairly steady over the cohorts, with the exception of an increase for College in the High School (CiHS) for the last three cohorts. This was primarily due to an increase in postsecondary enrollment in CiHS, though there is variation among student groups. A State Auditor's Office report highlighting how Washington public institutions accept CiHS and Running Start (RS) postsecondary credits when students provide transcripts was published in August 2024.

Recommendations:

- 1) Update the dashboard with another cohort / year of data and determine if additional measures should be included.
- 2) Work with data contributing partners to improve the quality and completeness of data relating to the high school/postsecondary partnership to offer dual credit courses.
- 3) Choose one or more of the prioritized research questions to pursue.

Overview

This report focuses on addressing the requirements in RCW
28A.600.280 and the recommendations made in previous dual credit reports. The additional analysis and recommendations included in this report were informed by the Dual Credit Workgroup consisting of members listed in RCW 28A.600.280. Analysis of enrollment by dependency status is not included in this report.

The analysis contained in this report and the accompanying dashboard is done by following nine *cohorts of students* who were expected to graduate from Washington public schools in 2015 through 2023. Their course enrollment in the six primary dual credit types (see Table 1) were used for analysis to address the following research questions:

This report and accompanying dashboard fulfill the reporting requirement in Chapter 75, Laws of 2022 (Substitute House Bill 1867). The required measures include dual credit enrollment, earning of high school credit, academic performance, and earning of postsecondary credit. Each measure must be presented by dual credit type and by student categories and subcategories described in RCW 28A.300.042.

- 1) What percent of high schools in each district offer at least one dual credit course, and what percent of students in each district participate?
- 2) What is the high school academic performance of students in different dual credit types and dual credit in general?
- 3) What is the percentage of students who have had postsecondary credit transcribed at an institution of higher education?

The following recommendations from previous ERDC dual credit reports to the Legislature are also addressed in this report:

- **I.** Perform a case study on challenges in collecting data on the use of dual credit courses to meet certificate and degree requirements.
- II. Provide a progress update on accuracy and completeness of postsecondary credit earning data.
- III. Conduct regression analysis to look at the relationship between dual credit enrollment and post-high school outcomes and attempt to identify causal relationships between types of students who enroll in both dual credit and postsecondary institutions.
- IV. Update the dashboard with another cohort/year of data and determine if additional measures should be included in the dashboard.
- V. Review annual snapshot data available on the OSPI Report Card to analyze the impact of recent dual credit policy changes on dual credit enrollment.

- VI. Analyze access/availability of dual credit courses based on student and school characteristics.
- VII. Choose one or more of the prioritized research questions to pursue.

Finally, this report continues to identify opportunities for collaboration around refinements to current data collections that would position Washington state to better understand the impact of dual credit course enrollment and achievement on future student outcomes.

An important consideration for interpreting the results of this report is that there are different enrollment criteria for each dual credit type and varied access to these opportunities across Washington state. For example, in College Preparatory Programs with Exams (CPPE) dual credit courses, a student must opt to take an exam, receive a qualifying score on the exam to be eligible to earn postsecondary credit, and then enroll in a university or community college that accepts the credit. Descriptions of each dual credit type and their enrollment criteria are included in Appendix B.

Table 1: Category and type of dual credit available to students in Washington state

Category	Dual Credit Type ¹	Included in Analysis
College Preparatory Programs with Exams (CPPE)	Advanced Placement (AP) Cambridge International (CI) International Baccalaureate (IB)	✓
Concurrent Enrollment / Course-Based	Running Start (RS) College in the High School (CiHS)	✓
Articulated Dual Credit / Course-Based	Career and Technical Education Dual Credit (CTE-DC)	✓
Other ²	Direct-Funded/Technical High School Open Doors 1418 Youth Reengagement Dual Credit District/Local dual credit Dual credit enrollment at out-of-state institutions, private colleges in Washington, or the Northwest Indian College Privately funded postsecondary enrollment ³	X

¹ See Appendix B for descriptions and the process by which postsecondary credit is earned.

² These dual credit types were not included in the analysis due to limited data availability.

³ Students may enroll at postsecondary institutions during high school using non-state funds as long as they meet the institution's admission criteria. Institutions can admit students on an individual basis or have programs focused on these students, such as Central Washington University's Cornerstone program. High School Partnerships (cwu.edu)

Data and analytical approach

Similar to previous ERDC dual credit reports, this report uses an analytical approach that follows each cohort over time. It should be noted that this is different from the approach taken in the Office of Superintendent of Public Instruction's (OSPI) annual reports to the Legislature on dual credit⁴ and the OSPI Report Card.⁵ OSPI's prior reports looked at a specific school year and identified all students in that school year who enrolled in dual credit courses. This "annual snapshot" approach allows for monitoring school and student performance and enrollment in dual credit in a timely manner. However, it is not suited to following students over time (a longitudinal approach) to understand the role of dual credit as students move from high school into postsecondary education. Since the longitudinal approach covers student course enrollment throughout their high school career as opposed to just one year (in the snapshot approach), the dual credit enrollment rates in this report will be higher than those reported in OSPI's annual reports. This report only employs annual snapshot data for analysis of district-level dual credit participation in the first research question on page 7.

Students can enroll in multiple dual credit types during their high school career. Therefore, a student may be counted under more than one type in this report. This means the summation across the different dual credit types will exceed the count of unique students in the Any Dual Credit category.

Cohort Description for the Report and Dashboard. The cohort includes *all* students who attended a Washington public high school between 9th and 12th grades and who were expected to graduate between 2015 and 2023.⁶ Only students who were confirmed to have transferred out of the Washington public school system and for whom high school outcomes are not known are excluded from this analysis. Most of the included students graduated on time (about 85% within four years), with others dropping out or graduating early or late. This report bases cohort membership on the year of graduation requirements they are held to regardless of students' final status or length of time it takes them to graduate, referring to each group of students as "the 20xx cohort." The ERDC count of students in each cohort will not match the OSPI graduation cohorts because of different business rules used to include or exclude students.

Table 2: Students by cohort (headcount)

Cohort Year	2015	2016	2017	2018	2019	2020	2021	2022	2023
Student Count	80,970	82,178	83,574	84,837	85,269	84,467	85,529	86,009	85,939

⁴ OSPI Reports to the Legislature | OSPI (ospi.k12.wa.us)

⁵ Report Card - Washington State Report Card (ospi.k12.wa.us)

⁶ This is defined as students with graduation requirements between the years of 2015 and 2023. Students are expected to meet the requirements of graduation that are in place for their expected graduation year, which is set upon entry into ninth grade or transfer in from outside of the Washington state public school system. For example, a student entering ninth grade in the 2014–15 school year would be expected to meet the graduation requirements for the class of 2018 (2017–18) even if they took more or fewer than four years to graduate. See RCW 28A.150.010 for the definition of a public school.

At the request of the Legislature⁷, the data presented in this report and the dashboard is disaggregated by the following student characteristics or program participation⁸ categories where possible:

- 1. Race and ethnicity as described in RCW <u>28A.300.042</u> (1) and (3);
- 2. Gender:
- 3. Students who experienced homelessness as defined in RCW 43.330.702; and
- 4. Multilingual/English learners who are in the Transitional Bilingual Instruction Program (TBIP).

ERDC is uniquely positioned to follow students over time and across different education sectors to understand dual credit access and enrollment, K–12 dual credit earned in Washington public schools, postsecondary credit earned, and long-term student outcomes, such as postsecondary retention or degree attainment. It is important to note that there are different ways to analyze data to understand the role of dual credit enrollment in K–12 and the impact on postsecondary outcomes for students. Each of the education sectors report on their unique, sector-specific aspects of dual credit.

Throughout the dashboard and this report, dual credit enrollment rate is calculated in the following way:

Formula to calculate overall student enrollment rate:

Number of students in the cohort enrolled in one or more courses of the dual credit type

All students in the cohort

Example of formula to calculate <u>specific student group </u>enrollment rate:

Number of students experiencing homelessness in the cohort enrolled in one or more courses of the dual credit type

All students experiencing homelessness in the cohort

⁷ The Legislature asked that the data be disaggregated by dependency status pursuant to Chapter 13.34 RCW, but this data was not available at the time this report was prepared.

⁸ See Appendix A for list and definitions.

Data Sources. The data for this report and the dashboard came from the ERDC P20W data warehouse. This data system links administrative records from several state education agencies. Data sources for this report include:

- Office of Superintendent of Public Instruction (OSPI): Comprehensive Education Data and Research
 System (CEDARS) For data on course enrollment and completion for AP, IB, CI, CiHS and CTE-DC
 high school completion; average final grade point average; student characteristics; and K–12 program
 participation.
- Washington State Board for Community and Technical Colleges (SBCTC) For data on course enrollment and completion for RS and earning or transfer of postsecondary credit for AP, IB, CI, CTE-DC, CiHS, and RS at a CTC.
- Public Centralized Higher Education Enrollment System (PCHEES) housed at the Office of Financial Management (OFM) — For data on course enrollment and completion for RS and postsecondary credit earning for AP, IB, CiHS, and RS at Washington public four-year institutions.

Data from out-of-state schools and private institutions are not included.

2024 analysis of dual credit

To take a deeper dive into evaluating dual credit types in Washington, ERDC consulted with the Dual Credit Workgroup to investigate the following three research questions.

1. What percent of high schools in each district offer at least one dual credit course, and what percent of students in each district participate?

This section examines the landscape of dual credit availability and participation across Washington school districts, focusing on two key measures of access: the availability of dual credit types across schools within a district and student enrollment in these types. These data provide a point-in-time snapshot of dual credit availability and enrollment for all high school students in the 2021–22 academic year and the change from 2015–16. These data are similar to what is available through the OSPI Report Card, although this analysis utilizes RS course data from postsecondary sources. Therefore, the OSPI Report Card data for non-RS courses is comparable. In order to protect student privacy, the publicly available data cannot report small aggregate student counts, which impacts the ability to use that data for analysis of small districts. This analysis focuses on student rates and change over time, which allows for nearly all districts to be analyzed. These data identify areas of greater dual credit accessibility and where opportunities may be more limited.

Schools offering each dual credit type and students enrolling is measured in percentage terms (see textbox for details). If a district did not have a school that served 9th – 12th grade students, it was excluded from the analysis. The total number of different dual credit types available in a school district is the sum of all the types offered across all schools in that district. For this analysis, exam-based dual credit programs are grouped together. Therefore, a school and district can offer up to four types of dual credit: RS, CiHS, CTE-DC, and exam-based dual credit (which includes AP, IB, and CI).

Formula to calculate percent of schools offering dual credit within a district:

Number of schools with at least one student enrolled in a course of the dual credit type

Number of schools in the district with 9th – 12th grade students

Formula to calculate percent of <u>students</u> participating in dual credit within a district:

Number of students enrolled in one or more courses of the dual credit type

Number of $9^{th} - 12^{th}$ grade students in the district

Figure 1 demonstrates that, in general, most high schools in each district offer at least one type of dual credit indicating very few geographic areas where students have no access to dual credit. While most districts have increased or had no change in the number of schools that offer at least one dual credit type over time, some have decreased.

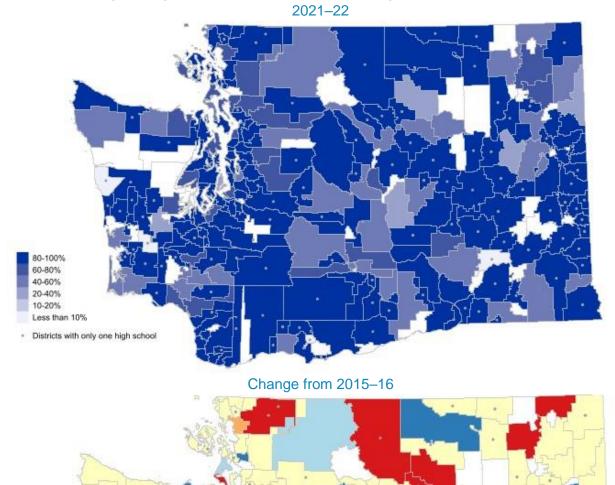
It is important to note that nearly half of districts only have one school serving 9th – 12thgrades¹⁰ and 80% have three or fewer. Therefore, a seemingly large change in the school access measure in these smaller districts may be indicative of a relatively small shift. An example of this is a district opening a school that serves a small number of students and does not offer dual credit. If the district previously had two schools that both offered dual credit, this change would result in a decrease of 33% for the district even if the number of students enrolled in dual credit remained the same.

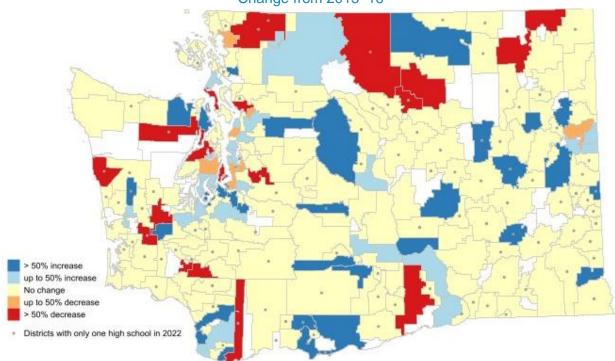
There is wide variation in the types of dual credit offerings. This variation may not be a sign of deficiency for the districts, as they may be catering to the specific needs and preferences of their students in accordance with district resources. Figure 2 shows the availability of each dual credit type in the 2021–22 school year. RS was the most widely available dual credit type, with more than 80% of schools in many districts that served 11th or 12th grade students offering RS courses. Exam-based dual credit courses had the most areas of limited access where few or no schools within a district offer them, particularly in eastern Washington and along the western coast.

⁹ School offerings are based on student enrollment data. It is possible that a school offered a dual credit course and no student enrolled. In this case, the school would not be identified as offering the dual credit course.

¹⁰ Only 11th and 12th grades can enroll in RS. Therefore, all analysis of RS uses a narrower population of student and schools than other dual credit types.

Figure 1: Percent of schools within each district offering at least one dual credit type in 2021–22, and the percentage change in the number of schools offering dual credit from 2015–16





Note: Unshaded districts had no high school. Dot indicates there was only one high school in the district. Districts that went from 0 to 1 school offering dual credit are coded as a 100% increase.

Exam-based College in the High School Running Start CTE Dual Credit 80-100% 60-80% 40-60% 20-40% 10-20% Less than 10% Note: Unshaded districts had no high school. Dot indicates district had one high school.

Figure 2: Percent of high schools within each district offering each dual credit type in 2021–22

Exam-based College in the High School Running Start CTE Dual Credit > 50% increase up to 50% increase No change up to 50% decrease > 50% decrease

Figure 3: Percentage change in the number of high schools within each district offering dual credit from 2015–16 to 2021–22

Note: Unshaded districts had no high school. Dot indicates district had one high school. Districts that went from 0 to 1 school offering dual credit are coded as a 100% increase.

Another important measure of access is the percentage of students participating in dual credit, which can demonstrate whether barriers within schools or districts exist that might prevent student enrollment in course offerings. Figure 4 shows that in many districts in 2021–22, 80%–100% of students enrolled in at least one dual credit course. There were very few districts in which fewer than 20% of students enrolled in at least one dual credit course. These rates may be influenced by graduation requirements such as CTE credit, of which CTE-DC is a subset, and graduation pathways, of which dual credit courses is one.¹¹

The percentage of students enrolled in dual credit courses has increased between 2015–16 and 2021–22, with the majority of districts (68%) experiencing growth in student enrollment and nearly 30% of districts experiencing growth in the dual enrollment rate of over 50%. This suggests that access to dual credit within schools is increasing in both small and large districts. The districts with very large increases or decreases over this period were more likely to be smaller, which again highlights that measures of access for small districts are very sensitive and may not be indicative of large-scale changes.

There are large differences between the school measure and student measure of access in 2021–22. While the school measure in Figure 3 shows that RS is accessible across the majority of districts, Figure 5 shows the rate of student participation in RS for the majority of districts is less than 20% (as measured by percent of students taking at least one RS course). Similarly, most schools have at least one student enrolled in exam-based and CiHS dual credit types, but the rate of student enrollment within the schools for the majority of districts is less than 20%. On the other hand, the school-level CTE-DC measure shows that fewer schools have at least one student enrolled in CTE-DC, but the rates of student enrollment within the schools are high. This shows that the opportunities for students to enroll in each dual credit type in a district are present, but there is variation in the rate of students enrolling in these courses – either due to barriers, lack of interest, or both.

Figure 6 highlights that the growth in dual credit enrollment is not the same across dual credit types. CiHS experienced the largest growth across the most districts between 2015–16 and 2021–22, while exambased had the most districts with decreases. Some districts show decreases across all dual credit types, while others show decreases in some types and increases in others. However, the data do not show if courses of one type changed independently or if they were balanced with a similar change in another type (e.g. AP Chemistry changing to CiHS Chemistry).

In all, student access to dual credit within and across districts has expanded over time, though with variation. The data suggest that there may be some influence of geography (e.g., distance to a postsecondary institution) and district size on course offerings and student enrollment. ERDC plans to produce additional research on how school and district characteristics relate to student access and enrollment in dual credit programs in an upcoming research report.

¹¹ <u>Graduation Requirements | SBE (wa.gov)</u> and <u>Graduation (ospi.k12.wa.us)</u>

2021–22 80-100% 60-80% 40-60% 20-40% 10-20% Less than 10% Change from 2015–16 > 50% increase up to 50% increase No change up to 50% decrease > 50% decrease Note: Unshaded districts had no high school.

Figure 4: Percent of students enrolling in at least one dual credit type in 2021–22 and the percentage change in the student enrollment rate from 2015–16

College in the High School Exam-based Running Start CTE Dual Credit 80-100% 60-80% 40-60% 20-40% 10-20% Less than 10% Note: Unshaded districts had no high school.

Figure 5: Percent of students within each district enrolling in each dual credit type in 2021–22

Exam-based College in the High School Running Start CTE Dual Credit > 50% increase up to 50% increase No change up to 50% decrease > 50% decrease Note: Unshaded districts had no high school.

Figure 6: Percentage change within each district in the student enrollment rate from 2015–16 to 2021–22

2. What is the high school academic performance of students in different dual credit types and dual credit in general?

Reporting academic performance for each dual credit program is required by RCW 28A.600.280. The 2022 and 2023 dual credit reports defined academic performance for the longitudinal cohort of students as their final high school grade point average (GPA). The GPA is a commonly used measure of academic performance because it is broadly understood and is required to be reported for most students.¹²

There are drawbacks to using GPA and audiences may misinterpret its meaning in relation to dual credit. The GPA is unweighted and includes all courses (dual credit and non-dual credit) and the impact of dual credit courses on a student's GPA will differ based on the number of dual credit courses taken. A student's GPA is highly correlated with dual credit enrollment.¹³ Rather than being an independent outcome measure, it may be that students with higher GPAs are more likely to seek out or be advised to enroll in dual credit courses.

This report continues to provide a measure of high school academic performance based on students' final high school GPA. In addition, this report puts forward a different measure that is focused on students' performance in dual credit courses specifically: K–12 credit attainment rate.

Final high school GPA

Figure 7 shows that in general, students who enrolled in any of the dual credit types achieved a higher final GPA than those who did not enroll. When dual credit types are separated, the highest final GPAs are among students who enrolled in RS and AP followed by those who enrolled in CiHS.

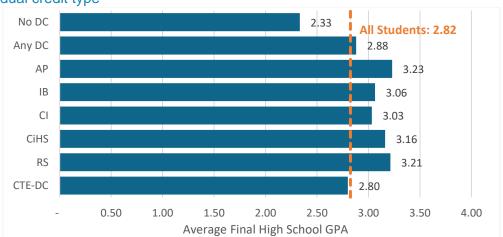


Figure 7: Average final cumulative high school GPA for students in the 2015–2023 cohorts by dual credit type

 $Note: \ Dashed \ line \ represents \ the \ statewide \ average \ for \ all \ students.$

¹² Students with a final cumulative GPA that is missing or 0.0 were excluded from this analysis (n=36,859; 5% of all cohorts). There are a small set of schools that evaluate students' progress through non-graded processes, such <u>as Big Picture Schools</u>.

¹³ See, for example: Spencer, G., & Maldonado, M. (2021). <u>Determinants of Dual Enrollment Access: A National Examination of Institutional Context and State Policies.</u> AERA Open, 7.

There was some variation of cumulative high school GPA across student characteristics and program participation; however, patterns of GPA across groups follow similar patterns by dual credit type as for the overall student population (see Appendix D).

K-12 credit attainment rate

This measure of academic performance focuses on the dual credit courses in which the students were enrolled and how many high school credits were earned out of the number of credits attempted.¹⁴ Credits are typically awarded on an all-or-none fashion for each course with students who enroll in more courses having more opportunities to earn credits. This metric does not analyze the grade that the student received (i.e. A- or C) nor how it impacted the student's GPA.

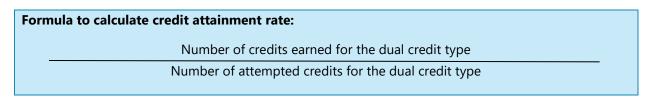
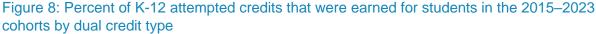
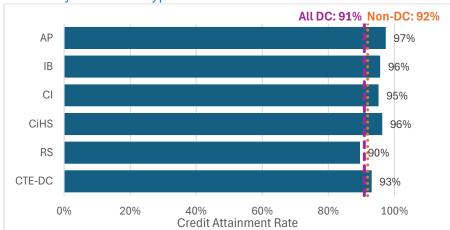


Figure 8 shows the percentage of earned K–12 credit for each dual credit type. Across all dual credit types, 91% of all attempted credits were earned, which was approximately the same as non-dual credit courses for all students (92%). Among dual credit types, AP courses had the highest rate at 97% and RS had the lowest rate at 90%. The credit attainment rate for AP, IB, CI, and CiHS are very close to the binary completion metric that is presented on the <u>Dual Credit Dashboard</u>, which is defined as the student earned high school credit *in at least one course*. RS is seven percentage points lower and CTE-DC is three percentage points lower than the binary completion metric.





Note: Dashed line represents the average across all dual credit courses. Dotted line represents the average across all non-dual credit courses for students who enrolled in at least one dual credit course.

¹⁴ Due to data limitations, K–12 credits for RS courses are not used for this analysis. Attempted and earned credits for RS represent postsecondary credits.

Across all dual credit types, students identified as American Indian/Alaska Native, Black/African American, Hispanic, Native Hawaiian/Pacific Islander, low income, multilingual learners and experiencing homelessness, as well as those participating in migrant or special education programs, had lower credit attainment rates than other student groups (see full results in Appendix D).

3. What is the total percentage of students who have had postsecondary credit transcribed at an institution of higher education?

This research question is the same as one analyzed in the 2022 Dual Credit Report and one that is required by RCW 28A.600.280. Available data is not sufficient to fully examine how postsecondary (PS) credit is initially earned through a dual credit course and then subsequently transferred to an institution of higher education (IHE) across the longitudinal cohorts of students. The data available to ERDC is incomplete, and therefore, this measure has many gaps.

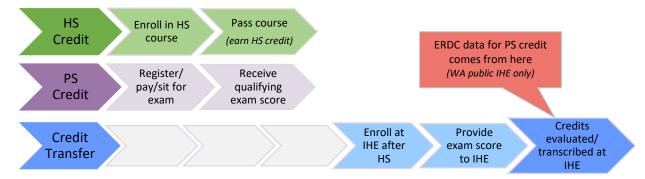
It is important to understand that the data available to ERDC does not accurately reflect how dual credit courses are used by students when they subsequently enroll in an institution of higher education after high school (represented by the final event listed in Figures 9–12). No data is available to ERDC to identify how credits earned through dual credit courses are applied at private or out-of-state institutions. The available data also does not speak to the transferability of credits that students attempt to bring to other institutions. The State Auditor's Office recently published a report¹⁵ that examined how credits earned through RS and CiHS were transferred to Washington public institutions of higher education through a manual review of student records. The audit found that the primary reason for credits not transferring was the student not providing their previous transcripts to their new institution. Nearly all credits that were submitted to the sampled institutions were transcribed in accordance with statute and best practices.

Many of the limitations of the available administrative data for this research question stem from the differences in criteria for earning the initial PS credit among dual credit types as well as the number of student actions and decision steps that occur between dual credit course enrollment and subsequent transcription of credit at an IHE after high school. See a combined list of events in Appendix Table E-1.

CPPE dual credit types (AP, IB, CI) have exam-based criteria such that a certain exam score threshold must be met before the student is eligible for PS credit. These thresholds are established in RCW 28B.10.054 for Washington public institutions of higher education and are unconnected to the course grade or credit earned through the high school course. Only if the student completes the multiple steps of earning a qualifying exam score, enrolling at an IHE after high school, and submitting the exam scores to the IHE, will the IHE be able to evaluate and transcribe the PS credits to the student's transcript (see Figure 9). ERDC only has data relating to the transcription result for Washington public institutions and data completeness remains an issue.

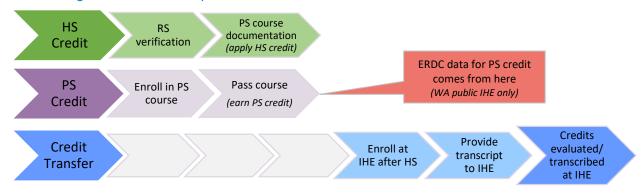
¹⁵ Running Start and College in the High School: Assessing dual credit transferability, August 2024.

Figure 9: Events involved in earning high school credit and becoming eligible for postsecondary credit for exam-based dual credit (AP, IB, and CI), and transferring credit to a subsequent IHE



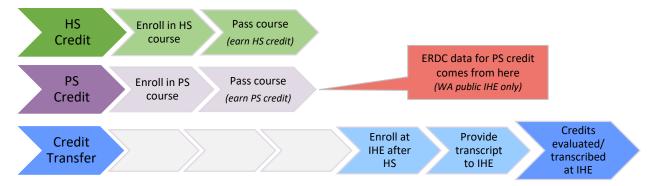
Concurrent enrollment dual credit types (RS, CiHS) have course-based criteria such that passing the course is sufficient to earn PS credit as long as the student has enrolled at the PS institution (see Figures 10 and 11). After the high school verifies the student's eligibility for RS and determines how the RS credits will apply as high school credits, ¹⁶ all RS are enrolled at the PS institution. However, students enrolled in a CiHS course have the option to either take the course for only K–12 credit or take the course for both K–12 and PS credit. In order to transfer earned PS credit from RS or CiHS to a subsequent IHE, the student must enroll at an IHE after high school and submit prior transcripts to the IHE, then the IHE will be able to evaluate and transcribe the PS credits to the student's transcript at the new institution. ERDC only has data relating to the initial transcription result for WA public institutions.

Figure 10: Events involved in earning high school and postsecondary credit for RS, and transferring credit to a subsequent IHE



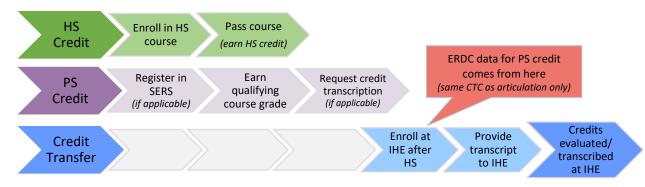
¹⁶ Eligibility and procedural requirements are described in <u>RCW 28A.600.310</u>. For each academic term and postsecondary institution of RS enrollment, the student, parent or guardian, and high school staff complete a Running Start Enrollment Verification Form (RSEVF) to ensure that a student's enrollments do not exceed the allowable full-time equivalent limitation and specify the high school course/credit equivalency for each RS course taken.

Figure 11: Events involved in earning high school and postsecondary credit for CiHS, and transferring credit to a subsequent IHE



Articulated dual credit types (CTE-DC) have course-based and registration criteria such that the students need to complete the course with a minimum grade as required by the community or technical college (CTC) articulation agreement, which may differ by course and articulating institution. Some agreements may require that the student register in the Statewide Enrollment and Reporting System (SERS) and request initial transcription of the PS credit from the course. In order to transfer earned PS credit to a subsequent IHE, the student must enroll at an IHE after high school and submit their prior transcripts to the IHE. The IHE will then be able to evaluate and transcribe the PS credits to the student's transcript at the new institution (see Figure 12). ERDC only has data relating to the initial transcription result if the students enrolled at the same CTC through which the articulated course was offered. This is a major limitation of reporting the use of CTE-DC credits at an IHE.

Figure 12: Events involved in earning high school and postsecondary credit for CTE-DC, and transferring credit to a subsequent IHE



Due to the differences in the available data for each dual credit type, results are not comparable across dual credit types. Concurrent enrollment dual credit types (RS, CiHS) are presented for all cohorts (2015–2023) because the data for the PS credit measure is collected while the student is enrolled in high school

¹⁷ Each college may have different procedures and timing for transcribing the postsecondary credit. A college may require that the student initiate the transcription process, or it may automate the process without student action. The transcription process may occur during or after the student's high school tenure.

from the initial transcription of PS credit. CPPE and articulated dual credit types (AP, IB, and CTE-DC)¹⁸ are presented for the 2015–2020 cohorts because the data for the metric is collected after high school and can be done at the end of the student's subsequent PS academic program.¹⁹

Formula to calculate <u>postsecondary credit</u> award rate:

Number of students in the cohort with postsecondary credits awarded of the dual credit type

All students in the cohort enrolled in the dual credit type

Table 3 shows that the percentage of students who enrolled in dual credit in high school and had PS credits transcribed at a WA public institution has remained fairly steady over the cohorts for most dual credit types. There has been an increase for CiHS for the last three cohorts (from 23% to 34%) and a slight decrease for RS for the last two cohorts (from 97% to 95%). There may be COVID-19 impacts to these results for the 2020 and 2021 cohorts as there were lower PS enrollments generally during these years.

Table 3: Percent of students with postsecondary credit transcribed at a WA public institution by dual credit type

Dual	Data represents that the	Data represents that the Cohort Year								
Credit Type	student	2015	2016	2017	2018	2019	2020	2021	2022	2023
АР	Earned qualifying exam score, enrolled in WA Public IHE, submitted score	15%	15%	15%	15%	16%	14%			
IB	Earned qualifying exam score, enrolled in WA Public IHE, submitted score	11%	11%	11%	12%	14%	13%			
CiHS	Enrolled for PS credit, passed course	20%	25%	26%	22%	22%	23%	27%	29%	34%
RS	Passed course	97%	97%	97%	97%	97%	97%	97%	95%	95%
CTE- DC	Registered in SERS (if applicable), earned a qualifying grade, requested PS transcription (if applicable), enrolled at same CTE	2%	2%	2%	2%	2%	1%			

Across all dual credit types, students identified as American Indian/Alaska Native, Black/African American, Hispanic, Native Hawaiian/Pacific Islander, low income, multilingual learners and experiencing homelessness, as well as those participating in migrant or special education programs, had lower rates of transcription of dual credits at an IHE than other student groups (see Appendix Table E-2).

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¹⁸ CI course type excluded due to the small number of enrolled students with postsecondary credit transfer credit found (<10 across all cohorts).

¹⁹ Metrics are also highly influenced by the postsecondary enrollment rates and choice of institution by students. See the <u>Postsecondary Enrollment Outcomes for Dual Credit Students</u> research brief for more information.

College in the High School postsecondary course enrollment

The rate of initial PS credit attainment for students enrolled in CiHS was much lower than the rate for RS (see Table 3), the other concurrent enrollment dual credit type. This appears to be due to the fact that the majority of students who enrolled in K–12 CiHS courses did not enroll in the PS institution. It is unclear if this low rate of concurrent enrollment was due to financial barriers, lack of knowledge of the option or process, other options for PS credit (i.e. K–12 course co-designated with AP), or issues with data quality.

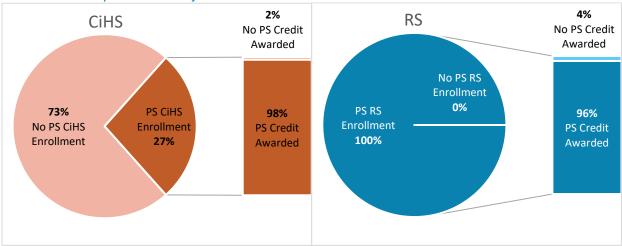
The rate of postsecondary CiHS course enrollment increased from 20% for the 2015 cohort to 35% for the 2023 cohort (see Table 4). During this time students were required to pay a college tuition fee, with subsidies available for low-income students. In 2023, the Legislature passed 2SSB 5048, which removed the fees for CiHS starting in the 2023–24 academic year. Future cohorts may see an increased rate of postsecondary CiHS enrollment for students where the tuition fee was a barrier.

Table 4: Of students with K–12 CiHS course enrollment, percent with postsecondary CiHS course enrollment by cohort

Cohort Year	2015	2016	2017	2018	2019	2020	2021	2022	2023
Percent with PS CiHS Enrollment	20%	26%	26%	23%	22%	24%	27%	30%	35%

The trend in postsecondary CiHS course enrollment mirrors the trend of postsecondary credit attainment for students enrolled in CiHS. Figure 13 illustrates that when postsecondary credit attainment is examined among those that enroll in the postsecondary CiHS course, the postsecondary credit attainment rate is 98% and slightly higher than the rate for RS.²⁰

Figure 13: Breakdown of students enrolled in CiHS and RS based on postsecondary course enrollment and postsecondary credit earned



²⁰ This analysis retains postsecondary course records for CiHS and RS in which the student withdrew before the end of the course. Institutions have different policies surrounding when dropping a course will result in a withdrawal on the student's transcript (i.e. after the 10th day of the term, after the 30th day of the term).

The rate of postsecondary CiHS course enrollment was lower by four to 10 percentage points for students identified as American Indian/Alaska Native, Black/African American, Native Hawaiian/Pacific Islander, low income, multilingual learners and experiencing homelessness, as well as those participating in special education programs (see Appendix Table E-3). Unless the course is cross-designated with another dual credit type, which occurred in about 73% of CiHS course records, students who do not enroll in the postsecondary CiHS course do not have the opportunity to earn postsecondary credit for their efforts. They will also not be able to apply those credits to a future postsecondary credential program.

Recommendations from previous reports

Recommendation I: Case Study

The 2022 ERDC Dual Credit Report recommended that a future report include a case study to understand how dual credit courses are used by students when they enroll in a postsecondary institution. While Washington state public institutions are required to follow a statewide policy to ensure efficient transfer of credits among institutions,²¹ the institution data systems do not uniformly capture whether the transfer credit was awarded through dual credit. This makes it difficult to identify which dual credits were ultimately submitted to an institution by the student, which were transcribed, which credit equivalency was given, and whether they were applied toward a specific program or degree requirement.

After the 2023 Dual Credit Report was published, the Washington State Auditor's Office (SAO) initiated an audit to assess to what extent credits earned in high school from dual credit courses are transferred at postsecondary institutions in line with RCW 28A.77.210 and the Policy on Intercollege Transfer and Articulation,²² which outlines policies and best practices for accepting and determining course equivalencies of transfer credit. This project focused on RS and CiHS courses with eight public institutions of higher education in Washington state sampled. Data for this project was provided by participating institutions of higher education and ERDC.

Since available administrative data does not identify transfer credits as being earned through a dual enrollment method, the SAO undertook a manual review of student records. The SAO found that the main barrier to having these credits transfer to a Washington public institution was the student not

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providing the institution with their previous transcripts. When transcripts were provided, the SAO found that nearly all credits were accepted in accordance with policy and best practice.

Recent legislation²³ also required postsecondary institutions to post transferability of CiHS credits on their websites and report on the award of postsecondary credits among other items annually starting in 2024.

²¹ RCW 28B.77.210: Statewide transfer and articulation policies. (wa.gov)

²² Intercollege Relations Commission <u>ICRC – The Washington Council (wa-council.org)</u>

²³ SB5048 (Laws of 2023)

The Dual Credit Workgroup will determine what information from these reports can be expanded upon in a future ERDC dual credit report.

Recommendation II: Update on data quality

The 2022 and 2023 ERDC Dual Credit Reports recommended a focus on improving the quality and completeness of existing data collections before requiring additional categories of data reporting and disaggregation. Some small progress has been made in the area of data quality and completeness and this will be an ongoing effort supported by OSPI, community and technical colleges, four-year institutions, and ERDC.

Advanced Placement, International Baccalaureate and Cambridge International

Postsecondary credits earned from AP, IB, and CI and transferred to a SBCTC college have been integrated into this report. However, this data is likely incomplete due to variation in how colleges report the data. ERDC and OSPI have also revised an existing data-sharing agreement to gain access to AP, IB and CI exam score data to determine whether students met the exam-based criteria to be eligible for college credit. The Dual Credit Workgroup will determine what information can be incorporated into a future ERDC dual credit report.

College in the High School and Running Start

ERDC worked with the public four-year institutions to correct PCHEES reporting errors in relation to enrollment and postsecondary credits earned in CiHS and RS courses. Correct reporting is now reflected in the PCHEES data since the 2021–22 academic year. Some of the institutions updated records for earlier academic years.

Career and Technical Education Dual Credit

An ERDC study²⁴ analyzing CTE-DC enrollments and outcomes using data from the <u>Statewide Enrollment</u> and <u>Reporting System</u> (SERS) highlighted the data limitations of identifying how often CTE-DC postsecondary credits are earned and transferred. There are ongoing efforts by SBCTC to better identify when these credits are awarded to students who do not enroll at the institution following high school.

Recommendation III: Regression analysis

The 2023 ERDC Dual Credit Report recommended that a regression analysis be conducted to look at the relationship between dual credit enrollment and post-high school outcomes. This research has not yet been done. The Dual Credit Workgroup will determine whether this analysis will be included in a future ERDC dual credit report or in a supplemental research report.

²⁴ CTE Dual Credit Participation and Postsecondary Outcomes in Washington | Washington State Education Research and Data Center.

Recommendation IV: Dual Credit Dashboard

The 2023 ERDC Dual Credit Report recommended that the dual credit dashboard be updated alongside this report to include an additional year of available data and an additional student cohort. This update was performed and will continue to be done each reporting year to fulfill several of the

Access the Dual Credit

<u>Dashboard</u>

reporting requirements of RCW 28A.600.280, while allowing the written report to focus on complex or emerging topics of interest. Questions relating to the reporting requirements that are answered by the dual credit dashboard are:

- What are student enrollment rates in dual credit types?
- What can intersectional analysis tell us about enrollment trends in dual credit types?
- What are the total number and percentage of students in each cohort who have earned K–12 credit?

Recommendation V: Annual snapshot data

The 2023 ERDC Dual Credit Report recommended that the annual snapshot data available on the OSPI Report Card be reviewed to analyze the impact of recent dual credit policy changes on dual credit enrollment. Additional time is needed before meaningful analysis can be done on the policy changes. To partially address this recommendation, annual snapshot data was used to complete the initial access analysis over time provided in this report and the OSPI Report Card data was used to validate the results.

Recommendation VI: Access analysis

The 2023 ERDC Dual Credit Report recommended that an analysis of access and availability of dual credit courses be done based on student and school characteristics. An initial analysis of access is presented in this report. ERDC is undertaking a research project that will produce a more robust analysis that includes additional disaggregation and regression analysis using school-level characteristics. The research report is expected to be published in Spring 2025.

Recommendation VII: Prioritized research questions

The 2023 ERDC Dual Credit Report recommended that one or more of the prioritized research questions be pursued. ERDC collaborated with the Dual Credit Workgroup to publish two research briefs relating to postsecondary outcomes of students who enroll in dual credit. These research topics were recommended in both the 2022 and 2023 Annual Dual Credit Reports. The December 2023 brief examined postsecondary enrollment, while the May 2024 brief examined postsecondary credential attainment.

Key findings from Postsecondary Enrollment brief:

- Graduates who enrolled in dual credit had substantially higher rates of postsecondary enrollment than those who did not enroll in dual credit. Enrollment rates were highest for RS students and lowest for CTE-DC students.
- The magnitude of the postsecondary enrollment rate increase varied by student group and dual credit type, particularly for RS and federal racial and ethnic categories.
- Graduates who enrolled in postsecondary education after high school primarily did so at in-state public institutions. However, whether they enrolled at a community and technical college or four-year baccalaureate institution varied by dual credit type.

Key findings from Postsecondary Credential brief:

- A growing proportion of high school graduates earned an associate degree within three years of high school graduation, driven partially by those awarded during high school through RS.
- Graduates who enrolled in AP, IB, CiHS, and RS
 had higher rates of earning at least one
 postsecondary credential within six years of
 high school graduation than the statewide
 average. The magnitude of this rate increase
 varied by student group and dual credit type.
- Students enrolled in RS earned associate and bachelor's degrees sooner and with fewer average credits after high school than the statewide average and other dual credit types. RS was also more likely to have an associate degree as their highest credential than other dual credit types.

Conclusion and recommendations

The analysis of district-level offerings of dual credit between the 2015–16 and 2021–22 academic years indicate that nearly every district offered at least one dual credit option in 2021–22 as well as in most schools within each district. There appeared to be very few geographic areas where students had no access to dual credit and, generally, there has been growth since 2015–16. However, the growth of each dual credit type was not uniform across districts.

The student enrollment rates by district show a different view of access than the school rate. While RS appears to have been the most widely available in schools, the student participation rate is lower than others. Similarly, although CTE-DC appears to be offered in fewer schools than RS, the student participation rate is higher. This highlights the importance of understanding access at the broad, school-level as well as the volume of students participating. This analysis focused on snapshot enrollment data, which shows participation within a single year. The statewide data presented on the Dual Credit Dashboard is based on graduation cohorts and show students' experience over their high school career. Both provide insight into the accessibility of dual credit and show increases over time.

Among the graduation requirement cohorts examined, the credit attainment rate for dual credit courses indicates that nearly all attempted credits were earned. Despite the high rigor of the courses, the rate was very near the rate for non-dual credit courses. There were only slight differences across the courses taught at the high school, with AP and CiHS having the highest rates. The rate for RS was the lowest. The average

final high school GPA of students enrolled in exam-based, CiHS, and RS were higher than the statewide average. This shows that students are passing rigorous dual credit courses and maintaining a high GPA. There were differences across student characteristics and program participation with group trends mirroring general statewide trends.

Progress has been made in the last year around the quality of existing data sources, but there are still large gaps in the available data to determine how many students are eligible for award of postsecondary credit after completing a dual credit course. This is largely due to the number of actions needed by students and differences among the systems collecting data. The data presented in this report only includes what data is available and does not represent the whole picture. CTE-DC and exam-based courses have the most limitations. However, efforts to include new data sources for AP, IB, and CI exam information and improve CTE-DC reporting are progressing.

RS and CiHS courses have the clearest results, with nearly all students earning postsecondary credit. Almost all also have the credits transcribed by the institution providing the course as long as they are registered for the postsecondary course. A minority of students enrolled in a CiHS course in high school also enrolled in the postsecondary course, although the rate is increasing. Removing the CiHS tuition fee through 2SSB 5048 may improve this rate for future student cohorts, though other barriers may still exist.

The requirements of RCW 28A.600.280 include that ERDC must recommend additional categories of data reporting and disaggregation. Consistent with previous reports, ERDC continues to *not recommend* that additional data collection occur until existing data collections are fully implemented with high data quality. However, the workgroup makes the following recommendations for the 2025 Annual Dual Credit Report:

- 1) Update the dashboard with another cohort / year of data and determine if additional measures should be included.
- 2) Work with data contributing partners to the improve quality and completeness of data relating to the high school/postsecondary partnership that results in a dual credit course offering.
- 3) Choose one or more of the prioritized research questions to pursue.

Appendix A: Student characteristics and K-12 program participation definitions

Gender is taken from the student's final high school enrollment record. Nonbinary student data is limited for this cohort. Numerators: Students in the subgroup who enrolled in one or more courses of the dual credit type. Denominators: All students in the cohort identified in the gender category.

Low income is defined as eligible for free or reduced-price meals at any time during their enrollment in grades 9–12 in a Washington public school. Numerators: Students in the subgroup who enrolled in one or more courses of the dual credit type. Denominators: All students in the cohort identified as either eligible or not eligible for free or reduced-price meals.

Race and Ethnicity Al/AN = American Indian or Alaskan Native. Black/AA = Black/African American. NH/PI = Native Hawaiian or Pacific Islander. Race and ethnicity are taken from the student's final high school enrollment record. Data on the dashboard reflects the aggregated race and ethnicity of the student into the federally required race categories performed by OSPI before providing to ERDC. The analysis in this report uses the disaggregated race and ethnicity data that are self-reported separately. Numerators: all students in the race or ethnic category who enrolled in one or more courses of the dual credit type. Denominators: All students in the cohort in the race or ethnic category.

A student is defined as participating in <u>Special Education</u> if they received the services at any time during their enrollment in grades 9–12 in a Washington public school. Numerators: Students in the subgroup who earned high school credit in one or more courses of the dual credit type. Denominators: All students in the cohort who are identified as either participating or not participating in Special Education.

A student is defined as participating in Migrant Education if they received the services at any time during their enrollment in grades 9–12 in a Washington public school. Numerators: Students in the subgroup who earned high school credit in one or more courses of the dual credit type. Denominators: All students in the cohort who are identified as either participating or not participating in the Migrant Education program.

A student is defined as a multilingual learner in this report if they receive services through the <u>Transitional Bilingual Instructional Program</u>, excluding students served under Title III services, at any time during their enrollment in grades 9–12 in a Washington public school.

A student is identified as experiencing homelessness if they were identified in CEDARS data as homeless, as defined in the McKinney–Vento Act, Section 725(2), at any time during their enrollment in grades 9–12 in a Washington public school. Numerators: Students in the subgroup who earned high school credit in one or more courses of the dual credit type. Denominators: All students in the cohort identified as either experiencing homelessness or not.

Appendix B: Description of dual credit types

Table B-1: Dual credit types by Category

Dual Credit Category	Dual Credit Type(s)	Postsecondary Credit Attainment
I. College Preparatory	Advanced Placement (AP), Cambridge International	Colleges determine the type and amount of postsecondary credit
Programs with Exams	(CI) and International Baccalaureate (IB) are taught at	earned based on the exam score. Taking the exam is voluntary, but
(CPPE)	high schools by high school teachers. Students may earn	necessary to earn college credit. Postsecondary credit for these
	college credit through established standardized exams.	programs will only be transcribed once the student enrolls in the
	Note: CI and IB are offered at a very limited number of Washington schools.	postsecondary institution. Credits are accepted at all public WA postsecondary institutions and most WA private institutions and out-of-state institutions. Exam score must meet threshold established in statute by the WA public institutions of higher education (RCW 28B.10.054)
II. Concurrent	The Running Start program (RS) is open to 11 th and	High school and postsecondary credit are earned when the student
Enrollment / Course-	12 th grade students to take college courses at WA	completes the course for credit and, in the case of CiHS the fee is
Based	community and technical colleges and some four-year	paid. ²⁶ The credit and grades students earn are added to their high
	baccalaureate institutions. ²⁵	school and college transcripts. Postsecondary credit is transcribed by
		the college or university where the student enrolled and earned the
	The College in the High School Program (CiHS) is open	postsecondary credit. If a student enrolls in dual credit courses at
	to 9 th to 12 th grade students to take courses taught by	multiple colleges or universities, they will have multiple college
	high school teachers at the high school, with college	transcripts.
	curriculum and textbooks, and oversight by college	
	6 1, 1 , 66	
	faculty and staff.	

²⁵ 2SHB 1316 (Laws of 2023) expanded the availability of Running Start funding for courses taken during the summer term.

²⁶ <u>2SSB 5048</u> (Laws of 2023) removed the fees for College in the High School starting in the 2023–2024 academic year for students attending a public high school or charter school and enrolled in a public WA institution of higher education.

Dual Credit Category	Dual Credit Type(s)	Postsecondary Credit Attainment
III. Articulation Dual Credit / Course-Based	Career and Technical Education Dual Credit (CTE-DC) courses integrate academics with technical skill development related to professional-technical occupations to prepare students for advanced education and careers. Courses are taught by high school teachers at the high schools but are a cooperative effort between K–12 schools, technical colleges and the community.	Requirements for earning credit vary among the articulation agreements between school districts and community and technical colleges. Students must meet the minimum grade level for a course that is offered with a CTE-DC articulation agreement. College credit transcription varies. In some cases, credits are automatically awarded and transcribed upon student attainment of a qualifying end-of-course grade. Other programs require students to submit a formal request for credits to be added to their transcript.
IV. Other	Direct-funded/technical high school are high school programs located at a community and technical college. Open Doors 1418 Youth Reengagement Dual Credit serves students in grades 9-12, offered through an articulation commitment between high school and college programs for courses at or above the 100 level. It may be taken at or under the authority of Washington's community and technical colleges, and was a new designation in CEDARS as of the 2019–20 academic year. District/Local dual credit is attendance at certain institutions of higher education, and was a new designation in CEDARS as of the 2019–20 academic year. Privately funded postsecondary enrollment is attendance at institutions of higher education that are not funded using basic education state funds.	Requirements for earning credit vary. Direct-funded/technical high school requirements are similar to Concurrent Enrollment types. Open Doors 1418 Youth Reengagement Dual Credit and District/Local dual credit requirements will vary among the articulation agreements between school districts and community and technical colleges.

Appendix C: Access

Table C-1: Percent of schools within each district offering at least one dual credit type in 2021–22, and the percentage change in the number of schools offering dual credit from 2015–16 by dual credit type and district

*See supplemental appendix file.

Table C-2: Percent of students within each district enrolling in at least one dual credit type in 2021–22, and the percentage change in the enrollment rate from 2015–16 by dual credit type and district

*See supplemental appendix file.

Appendix D: High school academic performance

Table D-1: Average final cumulative high school GPA for students in the 2015–2023 cohorts by dual credit type and student characteristics

		All Students	AP	IB	CI	CiHS	RS	CTE-DC
Gender	Female	2.98	3.31	3.17	3.14	3.27	3.27	2.95
	Male	2.68	3.14	2.95	2.92	3.04	3.13	2.66
	Gender X	2.88	3.21	3.47		3.00	3.32	2.93
Federal Race Category	American Indian/ Alaska Native	2.32	2.82	2.35	2.94	2.78	3.02	2.32
	Asian	3.28	3.46	3.40	3.42	3.47	3.41	3.26
	Black/African American	2.56	2.87	2.63	2.82	2.85	2.98	2.53
	Hispanic/Latino of any race(s)	2.52	2.94	2.73	2.77	2.86	3.06	2.51
	Native Hawaiian/ Other Pacific Islander	2.41	2.82	2.52	2.72	2.79	3.01	2.42
	Not Provided - Race	2.59	3.12	N<10		3.13	3.08	2.62
	Two or More Races	2.81	3.19	3.08	2.98	3.15	3.20	2.79
	White	2.92	3.30	3.24	3.22	3.24	3.23	2.89
Low Income	No	3.15	3.40	3.37	3.38	3.36	3.31	3.12
	Yes	2.52	2.93	2.73	2.80	2.86	3.06	2.50
Multilingual Learner	No	2.86	3.24	3.10	3.06	3.19	3.22	2.83
	Yes	2.42	2.86	2.68	2.67	2.71	3.08	2.43
Migrant Education	No	2.84	3.23	3.07	3.04	3.17	3.22	2.81
	Yes	2.39	2.86	2.80	2.46	2.78	3.04	2.40
Special Education	No	2.88	3.24	3.10	3.05	3.19	3.22	2.85
	Yes	2.44	2.78	2.52	2.70	2.67	2.92	2.41
504 Plan	No	2.83	3.24	3.07	3.04	3.17	3.22	2.81
	Yes	2.73	3.13	3.02	2.87	3.06	3.09	2.72
Gifted	No	2.77	3.17	2.99	2.95	3.10	3.18	2.75
	Yes	3.41	3.51	3.50	3.24	3.55	3.42	3.38
Experienced Homelessness	No	2.87	3.25	3.10	3.07	3.19	3.22	2.84
	Yes	2.25	2.66	2.40	2.41	2.59	2.82	2.24

Table D-2: Percent of K–12²⁷ attempted credits that were earned for students in the 2015–2023 cohorts by dual credit type and student characteristics

	r credit type and stude	AP	IB	CI	CiHS	RS	CTE-DC
Gender	Female	98%	97%	96%	97%	90%	94%
	Male	97%	95%	94%	96%	89%	92%
	Gender X	97%	100%		91%	90%	96%
Federal Race Category	American Indian/ Alaska Native	93%	86%	89%	92%	85%	86%
	Asian	98%	98%	98%	98%	92%	97%
	Black/African American	94%	91%	92%	93%	84%	90%
	Hispanic/Latino of any race(s)	94%	91%	92%	93%	87%	90%
	Native Hawaiian/ Other Pacific Islander	92%	88%	88%	91%	84%	88%
	Not Provided - Race	97%	N<10		100%	79%	91%
	Two or More Races	97%	96%	95%	96%	89%	93%
	White	98%	97%	97%	97%	90%	94%
Low Income	No	99%	98%	98%	98%	92%	97%
	Yes	94%	91%	92%	93%	86%	90%
Multilingual Learner	No	98%	96%	96%	97%	90%	94%
	Yes	93%	90%	86%	91%	86%	88%
Migrant Education	No	97%	96%	95%	96%	90%	93%
	Yes	93%	93%	83%	92%	86%	88%
Special Education	No	97%	96%	95%	96%	90%	94%
	Yes	94%	88%	91%	92%	83%	89%
504 Plan	No	97%	96%	95%	96%	90%	93%
	Yes	97%	95%	93%	95%	86%	93%
Gifted	No	97%	95%	94%	96%	89%	93%
_	Yes	99%	98%	97%	99%	92%	98%
Experienced Homelessness	No	98%	96%	96%	97%	90%	94%
	Yes	89%	84%	84%	88%	75%	83%

²⁷ Due to data limitations, K–12 credits for RS courses are not used for this analysis. Attempted and earned credits for RS represent postsecondary credits.

Appendix E: Postsecondary credit

For each type of dual credit, there are various actions that students must take in order to be eligible for postsecondary credit. Table E-1 highlights that some actions are shared across types, while others are unique to a single type. Not all students complete every action involved in a particular dual credit type and therefore may not be eligible for postsecondary credit.

Additionally, students who earn postsecondary credit may choose not to enroll in a subsequent institution of higher education after high school. In order to apply exam-based dual credit or transfer earned postsecondary credit, the student must also choose to provide their exam scores or postsecondary transcripts to the institution.

Table E-1 Events involved in earning high school and postsecondary credit, and transferring credit to subsequent IHE by dual credit type

Events for high school and postsecondary credit	Exam- based	CiHS	RS	CTE-DC
Enroll in high school course	Х	Χ		Х
Complete eligibility verification form with high school staff and determination of high school credit equivalency			Х	
Enroll in postsecondary course		Χ	Х	
Register in the Statewide Enrollment and Reporting System (if applicable)				Х
Register, pay fee, and sit for exam	Х			
Earn qualifying exam score	Х			
Pass high school/postsecondary course	Х	Х*	X*	Х
Earn qualifying course grade higher than passing grade (if applicable)				Х
Request postsecondary credit transcription (if applicable)				Х
Postsecondary course documentation provided to the high school by the institution			Х	
Events for applying postsecondary credit at a subsequent IHE				
Enroll at IHE after high school	Х	Χ	Х	X*
Provide exam scores or postsecondary transcript to IHE	X	Χ	Х	Х
Credits evaluated and transcribed by IHE	Х*	Х	Х	Х

Note: * = Stage at which the postsecondary credit appears in the administrative data available to ERDC.

Table E-2: Percent of students in the 2015–2023 cohorts with postsecondary credit transcribed at a WA public institution by dual credit type and student characteristics

		AP	IB	CiHS	RS	CTE-DC
Gender	Female	12%	11%	29%	97%	2%
	Male	13%	9%	24%	96%	1%
	Gender X	n<4	n<4	16%	93%	n<4
Federal Race Category	American Indian/ Alaska Native	4%	3%	22%	92%	1%
	Asian	23%	19%	30%	98%	2%
	Black/African American	4%	3%	17%	95%	0%
	Hispanic/Latino of any race(s)	7%	5%	25%	95%	1%
	Native Hawaiian/ Other Pacific Islander	3%	2%	14%	95%	0%
	Not Provided - Race	n<4	N<10	60%	100%	n<4
	Two or More Races	12%	10%	24%	96%	1%
	White	13%	11%	27%	97%	2%
Low Income	No	16%	15%	29%	97%	2%
	Yes	7%	5%	23%	95%	1%
Multilingual Learner	No	13%	11%	27%	96%	1%
	Yes	6%	2%	18%	95%	0%
Migrant Education	No	13%	10%	26%	96%	1%
	Yes	7%	6%	28%	94%	1%
Special Education	No	13%	11%	27%	96%	2%
	Yes	4%	1%	13%	91%	0%
504 Plan	No	13%	10%	26%	96%	2%
a.c. 1	Yes	10%	8%	25%	91%	0%
Gifted	No	11%	8%	25%	96%	1%
	Yes	20%	22%	36%	97%	3%
Experienced Homelessness	No	13%	11%	27%	97%	1%
	Yes	3%	1%	16%	86%	0%

Table E-3: Out of students with K-12 CiHS course enrollment, percent of students in the 2015–2023 cohorts that enrolled in postsecondary CiHS course by student characteristics

		CiHS
Condi		CIHS
Gender	Female	29%
	Male	24%
	Gender X	N<10
Federal Race Category	American Indian/ Alaska Native	22%
	Asian	31%
	Black/African American	17%
	Hispanic/Latino of any race(s)	25%
	Native Hawaiian/ Other Pacific Islander	14%
	Not Provided - Race	60%
	Two or More Races	25%
	White	28%
Low Income	No	29%
	Yes	23%
Multilingual Learner	No	27%
	Yes	19%
Migrant Education	No	27%
	Yes	29%
Special Education	No	28%
	Yes	14%
504 Plan	No	27%
	Yes	26%
Gifted	No	25%
	Yes	37%
Experienced Homelessness	No	27%
	Yes	17%