

PATHWAYS TO PROSPERITY:

Postsecondary Access and Success For Colorado's High School Graduates



COLORADO
Department of
Higher Education

2022 Report

Data Through the High School Graduating Class of 2020

The Colorado Department of Higher Education
Report to the education committees of the House of Representatives
and the Senate of the Colorado General Assembly
and the State Board of Education

Statute: C.R.S. 23-1-113



COLORADO

Department of Higher Education

This report was prepared by the
Colorado Department of Higher Education (CDHE)

This report meets the reporting requirements outlined in C.R.S. 23-1-113 and has been submitted to the education committees of the House of Representatives and the Senate of the Colorado General Assembly as well as the State Board of Education.

May 2, 2022

<https://highered.colorado.gov/pathways-to-prosperity-postsecondary-access-and-success-for-colorados-high-school-graduates>

For more information contact:

**Carl Einhaus, Senior Director of Student Success & P20 Alignment
Colorado GEAR UP Project Director**

carl.einhaus@dhe.state.co.us



COLORADO
Department of
Higher Education

1600 Broadway, Suite 2200
Denver, CO 80202

Jared Polis
Governor

Dr. Angie Paccione
Executive Director

This report follows the high school graduating class of 2020 into their first year of college—high school seniors when the pandemic began. Certainly, as you read through this report, the initial impact of the pandemic on college-going pathways and outcomes is a focal point. Without a doubt, the data is concerning. Still, there are successes we should celebrate:

- Dual enrollment participation continues to increase;
- More students of color are participating in dual enrollment;
- Students are increasingly earning college credentials while in high school;
- There is a continued decrease in the need for developmental education courses at community colleges due to policy reform; and
- After multiple years of continued increases, first-year college GPA and course credits completed stayed at the same high level.

We can build on the above student successes as we work to address the concerns revealed by the data. College-going rates for the 2020 graduates dropped almost 6%; students from small rural areas dropped 10%. Next year's report will reveal if some of these students took a gap year and chose to enroll the following year. Regardless, work to reengage Colorado residents of all ages to enroll in higher education must be and is a priority. This report includes some of that work including the Finish What You Started program, as well as the Colorado Re-Engaged (CORE) initiative.

While the report demonstrates that students from some ethnic, racial, income and geographical groups are not given the support required to succeed, it is also important to remember that students are individuals, not categories, and support must be provided to meet an individual student's needs. As Estela Mara Bensimon, professor and director of the Center for Urban Education at the University of Southern California states, "We must move from a deficit mindset when considering equity to one of success. Instead of equity gaps where we compare the achievement of one group to another, we should focus more on how we are failing to serve all students."

To assist in moving equity efforts forward, our department appointed our first chief educational equity officer and created an Office of Education Equity. Work has already begun to remove structural barriers in Colorado's higher education system and provide guidance that leads to specific and tailored supports that students need to succeed.

Integrating and aligning higher education with the workforce continues to be a primary focus, as well as instilling the profound value of a college credential for the future vitality of the individual and the community. In years to come, I know this report will reflect the many impactful outcomes from the initiatives our state is currently pursuing to help our state's residents and the workforce thrive.

A handwritten signature in black ink that reads "Dr. Angie Paccione".

Dr. Angie Paccione
Executive Director
Colorado Department of Higher Education



OVERVIEW OF DATA INCLUDED IN REPORT:

Data Represented in This Report

This report fulfills a statutory requirement (C.R.S. 23-1-113) to provide data and outcomes of Colorado's high school graduates enrolling in institutions of higher education in the state. The data comes from three main sources:

- State Unit Record Data System (SURDS): CDHE's data collection system for in-state public institutions of higher education and three private institutions (Colorado Christian University, Regis University, and the University of Denver).
- The Colorado Department of Education (CDE): CDE, our pre-K-12 state agency partner, provides data on Colorado's high school graduates, which is matched to the SURDS database.
- National Student Clearinghouse (NSC): NSC provides CDHE out-of-state enrollment and persistence information, as well as information on Colorado private institutions not included in SURDS. The vast majority of regionally accredited institutions of higher education in the U.S. report to NSC.

Enrollment data includes Colorado high school graduate students who enrolled at institutions that report to SURDS and NSC. It does NOT include students who graduated from an out-of-state high school.

First-year persistence rates reflect the number of Colorado high school graduates who enroll in an in-state SURDS reporting institution of higher education the first year after high school graduation and then enroll the next year at either the institution they initially enrolled in or at another institution in the country that reports to NSC.

Credential completion and attainment data only includes Colorado high school graduates that earn their credential at an in-state institution that reports to SURDS.

Data NOT Represented in This Report

This report does not include data of Colorado high school graduates who completed at out-of-state institutions or students who enrolled or completed in our state's institutions of higher education that come from out-of-state or country.

KEY FINDINGS FOR 2020 HIGH SCHOOL GRADUATES:

Pathways to a Postsecondary Credential in High School

- 72% enrolled in CTE courses in high school (*unchanged for last 2 years reported*).
- 42% enrolled in college courses while in high school (*40% for 2019*).
- 3.8% graduated with a college certificate or degree (*3.7% for 2019*).

Pathways to Enrolling in Higher Education

- 50.5% of high school graduates enrolled in postsecondary education the fall after graduation (*over 5% decrease from 2019*) - race and ethnicity enrollment gaps persist.
- 46% of students from rural areas enrolled in the fall immediately after high school graduation (*5% decrease from 2019*).
- 25% enrolled out-of-state (*same as 2019*).
- Of those enrolled, 73% attended a 4-year institution and 27% at a 2-year institution (*about same as 2019*).

An additional 10% of students enroll within two years after graduation.

Pathways to Postsecondary Success

- For every 100 students who enroll in college, eight will complete in two years, 38 will complete in four years and 60 will graduate in six years.
- Four year credential completion rates have risen for every high school class since 2009.
- Students who need developmental education courses overall has increased after a few years of decreasing, but at two-year colleges it continues to decrease.
- First-year GPA and course credits completed remained about the same after multi-year increase.

Policy Recommendations

- CDHE should work with institutions of higher education, K-12 partners, My Colorado Journey and the workforce to encourage preparation, enrollment and credential attainment of low income, students of color and students from rural areas. Encourage similar practices which have already proven to work ([Colorado School Counselor Corps Grant Program](#), [GEAR UP](#) and [COSI](#) are good examples).
- Create new incremental credentials that recognize knowledge and skills developed along the degree pathway.
- CDHE should work with college academic advisors to assist in training and designing student pathways, identify student pain points and solutions, and inform policy related to student success.
- CDHE must continue to work with institutions of higher education, CCHE, K-12 partners, and statewide leadership to intentionally remove structural barriers, providing students with the specific supports they need to succeed.

This page is intentionally left blank

Table of Contents

8	Introduction
11	SECTION I: Pathways to a Postsecondary Credential in High School
20	SECTION II: Pathways to Enrolling in Higher Education
29	SECTION III: Pathways to Success in Higher Education
46	Conclusion and Policy Recommendations
52	Data and Methodology
54	Appendix I: Data Tables
62	Appendix II: Data File Specifications

Introduction

For Colorado to rebuild our economy stronger than it was before the pandemic, we must successfully guide more residents toward earning an in-demand college certificate or degree.

Pathways are essential not only to individual success but also to meeting the state's economic needs. [The 2021 Colorado Talent Pipeline Report](#) identified that 90.7% of Colorado's Tier 1 top jobs¹ require a credential beyond high school. However, only 61% of Coloradans 25-64 years old hold a postsecondary credential, indicating a supply-and-demand gap for some occupations.²

Equity gaps are especially concerning as demonstrated in 2020, 64.1% of Asian or Pacific Islander and 59.1% of White Coloradans earned a college degree or certificate, while the attainment rates for American Indian or Alaska Native (30.9%) Black or African American (37.9%), and Hispanic or Latinx (25.1%) were much lower.³

The Colorado Department of Higher Education (CDHE) and the Colorado Commission on Higher Education (CCHE) set an ambitious goal that by 2025, 66% of Coloradans attain a postsecondary degree or certificate, to help close the supply-and-demand gap.

To this end, [Colorado Rises: Advancing Education and Talent Development](#) lays out four goals: increase credential completion, erase equity gaps, improve student success, and commit to

cost containment, affordability, and innovation. Further, HB21-1330 in part charged CCHE to reimagine the role of postsecondary institutions in the post-pandemic era. Along with a 67-member task force composed of state experts in education and stakeholders, CCHE published a [report](#) with recommendations intended to build on the many strengths of Colorado's current higher education and workforce system.

Recommendations from the report include:

- Innovation and scaling partnership grants;
- Develop new statewide success measures;
- Eliminate equity gaps; and
- Create a strategic talent finance plan.

Plans to pursue these recommendations are in progress. Clearly, as erasing equity gaps was included in both the Colorado Rises goals as well as the HB21-1330 task force recommendations, it is a primary focus. To that end, CDHE created a new chief educational equity officer position as well as the Office of Education Equity that, amongst other tasks, will amplify state efforts in higher education that encourage systemic change aimed at erasing equity gaps in postsecondary attainment.

¹ Tier 1 top jobs: \$31.19 hour: a living hourly wage threshold that can support a family of three with two adults-one working- and one child.

² Colorado Department of Higher Education. (2021) Statewide educational attainment continues to grow [Press Release], <https://cdhe.colorado.gov/news-article/statewide-educational-attainment-continues-to-grow>

³ Lumina Foundation. <https://www.luminafoundation.org/stronger-nation/report/2021/#/progress/state/CO>



A key strategy for meeting Colorado's workforce needs is ensuring that Colorado's high school graduates are enrolling and succeeding in career-connected postsecondary education.

A key strategy for meeting Colorado's workforce needs is ensuring that Colorado's high school graduates are enrolling and succeeding in career-connected postsecondary education. Colorado has been successful at importing highly educated talent to meet workforce demands which have contributed to Colorado's resident attainment rate being nine percentage points above the national average.¹ Unfortunately, Colorado has not been as successful at educating its recent high school graduates; college-going rates are more than 10 percentage points below the 2020 national average of 62.7%.² Growing our talent is imperative, as projections show the number of people moving to Colorado will plateau over the next 10 years. Further, according to the state demographer, Colorado's population growth will also be impacted by slowing birth rates. As fewer people move to Colorado, it is unlikely that Colorado will be able to reach its postsecondary attainment goal and meet workforce demand if the state does not focus on college-going and completion rates for resident Coloradans—with specific focus on low-income, Black, Hispanic, and Native American students and students from rural areas.

1 Lumina Foundation. <https://www.luminafoundation.org/stronger-nation/report/2021/#/progress/state/CO>

2 U.S. Bureau of Labor Statistics. <https://www.bls.gov/news.release/hsgsec.nr0.htm>

In 2020, 60,726 students graduated from a public Colorado high school. Graduating from high school is a significant accomplishment, but to compete in the modern economy and achieve economic stability Coloradans need some sort of postsecondary degree or credential. The college-going rate for the class of 2020 is 50.5%, a decrease of almost 6% from the previous year most certainly due to the pandemic. Fifty-two percent either went to college or graduated with a postsecondary credential (5.5% drop).¹

50.5%

of 2020 high school graduates enrolled in postsecondary education. 52% either went to college or graduated high school with a postsecondary credential.

A total of 29,136 students (48%) graduated from high school in 2020 without achieving a postsecondary-recognized credential or enrolling directly into postsecondary education. Though some may have taken a gap year, joined the military or entered a skilled apprenticeship program, many did not pursue a postsecondary pathway. The college-going rate could increase substantially if a focus is given to college-ready students who do not enroll in higher education after high school graduation. Ensuring that prepared high school students are taking advantage of postsecondary opportunities is essential.

2022 Report Format

This report explores both data trends and policy context related to critical pathways that Colorado's recent high school graduates pursue to a meaningful degree or credential.

Specifically, it covers:

SECTION I:

Pathways to a postsecondary credential in high school

SECTION II:

Pathways to enrolling in higher education

SECTION III:

Pathways to success in higher education



Within each section, the report highlights partnerships designed to help more students succeed.

Additionally, the report focuses on changing demographics and the importance of closing equity gaps for all populations.

This report meets the reporting requirements outlined in C.R.S. 23-1-113 and has been submitted to the education committees of the House of Representatives and the Senate of the Colorado General Assembly as well as the State Board of Education.

¹ Data Table 1 in Appendix 1.

SECTION I:

Pathways to a Postsecondary Credential in High School

Interventions such as dual enrollment, career and technical education and other programs designed to help high school students achieve an industry- or postsecondary-recognized credential in high school are creating more meaningful pathways. This section outlines critical pathways blending high school and postsecondary education to ensure more Coloradans can complete a credential.



Career and Technical Education

Perhaps one of the longest-standing pathways to a postsecondary credential is career and technical education (CTE). CTE was formalized in Colorado through state legislation in 1970, although federal legislation has supported CTE programs since the early 1900s. Colorado's CTE programs deliver proven pathways to career success through rigorous, career-connected courses and programs. The Colorado Community College System (CCCS) houses Colorado's state CTE administration, with programs at the middle school, high school, and postsecondary levels. Though not all CTE participants or completers earn a credential, many do.



72%

of 2020 high school graduates enrolled in CTE courses at some point during high school.



51%

of 2020 high school graduates completed a CTE program. Students may receive either a postsecondary- or industry-recognized credential upon completion of or on the way to completing a CTE program.¹

¹ Data are currently unavailable for students receiving an industry-recognized credential.

Dual and Concurrent Enrollment

Colorado high school students can access postsecondary coursework in high school through both dual and Concurrent Enrollment programs. In Colorado, the term "dual enrollment" refers to the broad array of programs available to high school students that allow them to take college-level courses for credit. In contrast, Concurrent Enrollment (capitalized in all usages) refers only to the statewide programs detailed in the Concurrent Enrollment Programs Act (C.R.S. §22-35-101). Colorado's state-structured Concurrent Enrollment program provides courses to students at no tuition cost. It ensures that coursework either is transferable statewide or applies toward a degree program at one or more postsecondary institutions.



42%

of 2020 high school graduates participated in dual enrollment.



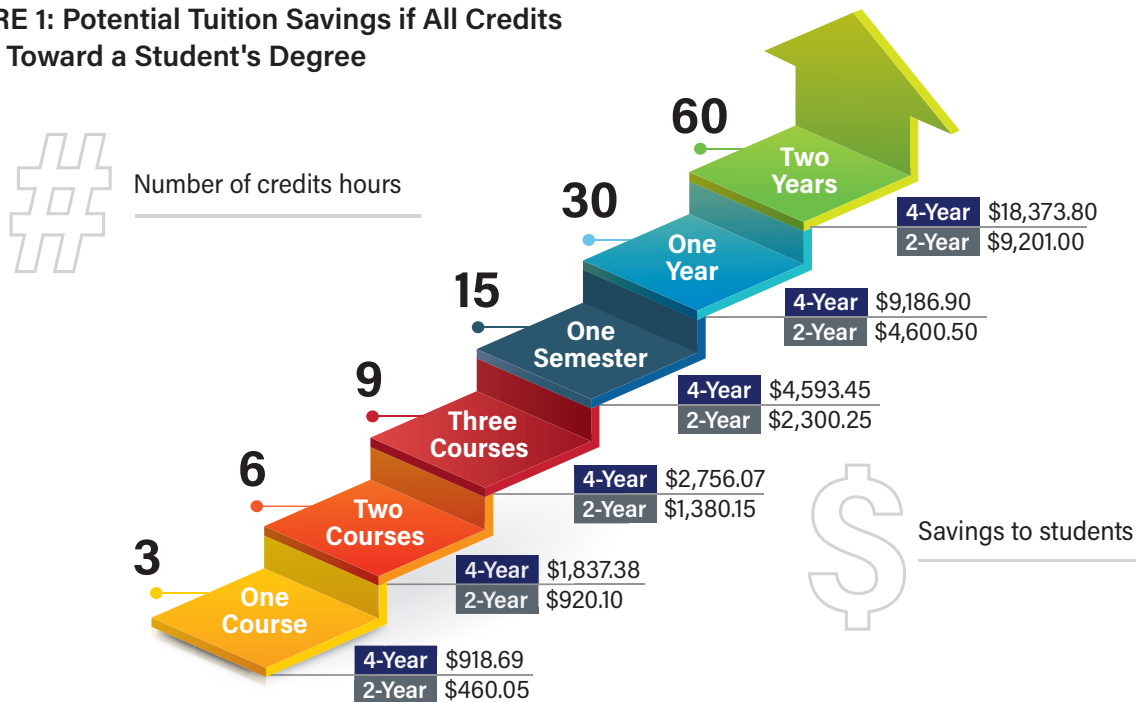
Over the last 10 years, the number of high school graduates who enrolled in dual enrollment has grown more than

228%

Concurrent Enrollment

Eighty-five percent of dual enrollment students completed college credits as part of the state’s Concurrent Enrollment program. Concurrent Enrollment provides the opportunity for students to earn or make progress toward a degree or certificate. Figure 1 illustrates the cost savings that students could realize through concurrent enrollment if all credits earned apply toward their degree. In total, all students in the 2019-2020 academic year (freshmen – seniors) had the potential to save an estimated \$53 million on tuition through Concurrent Enrollment.¹

FIGURE 1: Potential Tuition Savings if All Credits Apply Toward a Student's Degree



Additional state programs that offer college courses in high school

ASCENT

[Accelerating Students through Concurrent ENrollment](#) or “ASCENT” is a 5th year high school program that is included in the same legislation as the state’s Concurrent Enrollment program. A limited number of students can participate per year and must have met graduation requirements and completed 12 college level Concurrent Enrollment credit hours through their senior year of high school. College tuition is paid for the student for the academic year.

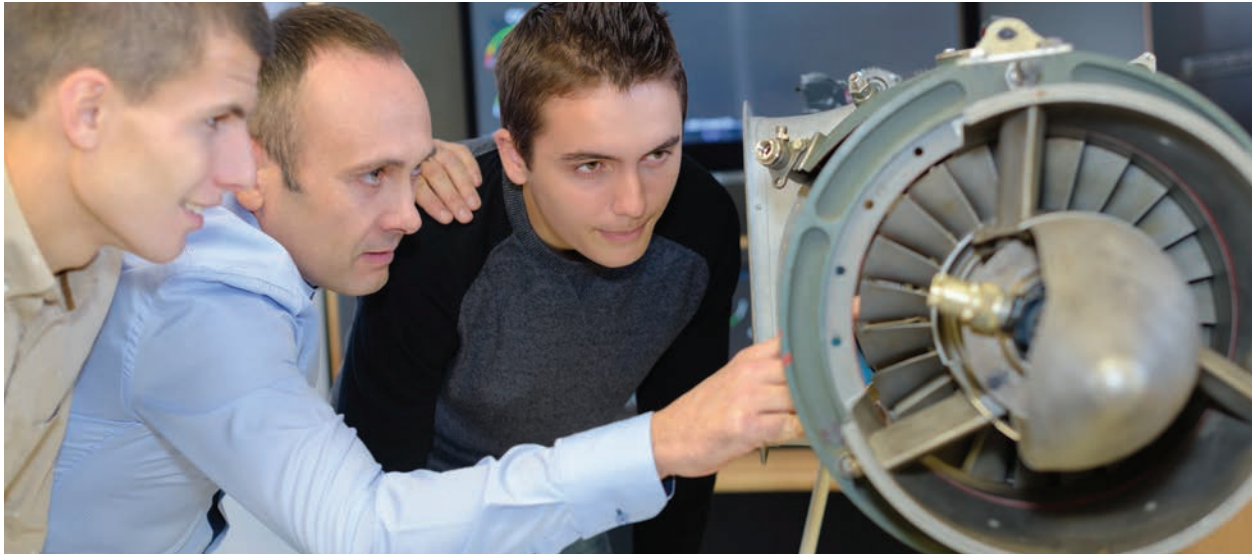
P-TECH

[Pathways in Technology Early College High Schools](#) or “P-TECH” is a partnership between a school district, a community college, and one or more local high growth industries/employers. It is a six-year (or shorter) program in which students earn both their high school diploma in addition to an industry recognized associate degree as well as experiences in the workplace through mentoring, job shadowing, internships and more. There are currently 20 P-TECH partnerships throughout the state.

Early College High Schools

An [Early College](#) in Colorado is a secondary school that provides a curriculum that requires each student to enroll in and complete secondary and postsecondary courses while enrolled in the four years of high school such that, upon successful completion of the curriculum, the student will have completed the requirements of a high school diploma and an associate's degree or other postsecondary credential or at least 60 credits toward the completion of a postsecondary credential. The curriculum must be designed to be completed within four years. There are currently 18 designated Early Colleges in Colorado.

¹ Estimated based on the average in-state tuition at the level of institution that a student attended (average tuition: https://higher.ed.colorado.gov/Publications/Reports/Budget/FY2021/2021_tuitionfeesreport.pdf).



Career Development Success Program

[The Career Development Success Program](#) was created by the legislature in 2016 to increase credentials awarded to high school students. This program aligns with the partnership between CDE and CDHE to blend K-12 and higher education and ensure that more students complete high school with a credential. Districts and charter schools can receive up to a \$1,000 bonus for each student who completes an industry certification linked to high-demand jobs. Though some students were achieving credentials outside of this Career Development Success Program, primarily through CTE, this program has accelerated the growth of high school students graduating with a credential.

These three interventions represent just a few of the innovations being undertaken at the secondary level to support student pathways into college and careers.

Statewide high school [graduation guidelines](#) that went into effect in 2021 (with some implementation flexibility given to school districts due to the pandemic) require all high school students to demonstrate college and career readiness in English and math through a menu of items. This menu not only includes standardized assessments, Advanced Placement (AP) and International Baccalaureate (IB) participation, dual enrollment but also industry-recognized credentials and a capstone option that can incent students to participate in career opportunities.



A total of
2,294
graduates

completed a credential in high school, representing 3.8% of 2020 high school graduates.



The number of high school graduates who are graduating with a postsecondary-recognized credential has increased more than

1,200%
in over **11 years.**

Other Postsecondary Pathways

In addition to CTE and dual and Concurrent Enrollment, many Colorado graduates have access to other important postsecondary pathways. Colorado students take rigorous courses in high school through the Advanced Placement (AP) and International Baccalaureate (IB) programs that can lead to college credit.

The **Advanced Placement Program**, administered by the College Board, allows students to enroll in a college-level curriculum in high school and earn college credit by passing an end-of-year exam. In the 2020 school year, Colorado ranked 8th amongst states with the highest percentage of students scoring 3 or higher on an AP exam (a score of 3 typically is the threshold to receive college course credit). Just over 43% of the [class of 2020](#) took an AP exam representing a total of 81,936 AP exams, and 29% received a passing score. The AP exam is becoming more popular in Colorado as in 2010 only 33.6% of graduating students took the exam. Regarding race and ethnicity, in 2020, 56,302 exams were taken by White students, and 31,054 exams were taken by students from all other race/ethnicity categories combined.

International Baccalaureate is an internationally-recognized program that allows students to take a series of college-level courses that culminate in a standardized assessment where students can earn college credit for a passing score. Currently, 31 public high schools in Colorado offer International Baccalaureate programs.

Scores Typically Required
for College Credit

AP
3

Some courses require 4.

IB

4 out of 7

29%

Of students from the
graduating class of 2020
received a passing score
on an AP exam.

Representation in High School Pathways That Lead to a Postsecondary Credential

Ensuring CDE and CDHE meet their postsecondary enrollment and attainment goals will mean serving all populations of students equitably. This is particularly important as populations who have traditionally not been served well by education systems represent an increasing share of the student population in Colorado. This section includes trends by gender and race/ ethnicity over time and the percent change between the first and last year in the tables.

CTE Participation by Race/Ethnicity Over Time

	2016	2017	2018	2019	2020	Percent Change from 2016
American Indian or Alaska Native	72.40%	72.81%	66.16%	73.56%	71.09%	-1.80%
Asian	67.88%	69.72%	72.31%	72.06%	71.89%	5.91%
Black (not Hispanic)	64.17%	63.85%	66.45%	65.55%	67.48%	5.15%
Hawaiian/Pacific Islander	62.86%	71.01%	68.75%	68.21%	76.98%	22.47%
Hispanic	68.28%	68.64%	69.17%	69.05%	69.12%	1.23%
Two or More Races	71.36%	72.72%	72.92%	71.81%	70.47%	-1.24%
White (not Hispanic)	73.64%	74.48%	74.28%	74.86%	74.35%	0.97%

CTE Overview

Male graduates are more likely than female graduates to participate in CTE, 75% compared to 69%. Fewer graduates who qualify for Free and Reduced Lunch (FRL) participate in CTE; 74% compared to 68% FRL eligible.¹ Hawaiian or Pacific Islander (large percent change due to small numbers) and White students are the most likely to engage in CTE, and Black or African American students are least likely. However, Black or African American students, in addition to Asian students, experienced the highest growth in the percentage of participation since 2016.



Male graduates were more likely than female graduates to participate in CTE.

75%
compared to
69%

¹ Data Table 5 in Appendix 1.



Female graduates are more likely to graduate with dual enrollment than male graduates.

46.5%
compared to
38.3%

Dual Enrollment by Race/Ethnicity Over Time

	2014	2015	2016	2017	2018	2019	2020	Percent Change from 2014
American Indian or Alaska Native	15.88%	22.64%	27.60%	27.66%	31.89%	32.69%	36.46%	129.63%
Asian	26.46%	30.41%	36.81%	42.14%	43.65%	45.73%	48.40%	82.88%
Black (not Hispanic)	20.57%	31.08%	28.64%	34.00%	36.16%	37.71%	40.77%	98.22%
Hawaiian/ Pacific Islander	26.67%	23.26%	26.43%	23.67%	28.47%	37.09%	32.37%	21.40%
Hispanic or Latinx	24.81%	29.29%	30.66%	32.32%	34.70%	36.19%	37.91%	52.79%
Two or More Races	25.22%	28.94%	33.04%	32.66%	37.38%	38.87%	39.68%	57.29%
White (not Hispanic)	26.64%	32.24%	34.83%	37.68%	40.12%	41.31%	45.00%	68.93%

Dual Enrollment Overview

Female graduates are more likely to graduate with dual enrollment courses than male graduates, at 46.5% and 38.3%, respectively. A much higher percentage of graduates who do not qualify for FRL participate in dual enrollment (45%), compared to just 37% of graduates who do qualify. While the percentage of growth in dual enrollment courses has increased for students whose families qualify for FRL since 2014 (57% increase) there was a 69% increase since 2014 for students not eligible for FRL.¹ Additionally, the percentage of growth in participation for every race and ethnic category has increased significantly since 2014. Efforts to continue this growth in dual enrollment, especially for our underrepresented students must continue as it will have a positive impact on credential completion for these students.


¹ Data Table 5 in Appendix 1.

Credential Attainment in High School by Race/Ethnicity Over Time

	2014	2015	2016	2017	2018	2019	2020	Percent Change from 2014
American Indian or Alaska Native	0.24%	1.00%	1.82%	2.13%	2.39%	3.61%	3.13%	1218.75%
Asian	0.88%	1.67%	1.58%	2.34%	2.00%	2.59%	3.03%	242.80%
Black (not Hispanic)	0.54%	1.09%	1.17%	1.33%	1.09%	1.49%	1.61%	200.91%
Hawaiian/Pacific Islander	1.48%	0.78%	2.14%	1.18%	4.17%	2.65%	2.88%	94.24%
Hispanic	1.85%	2.65%	2.84%	2.58%	3.26%	3.27%	3.17%	71.85%
Two or More Races	1.49%	1.58%	2.55%	2.48%	2.77%	2.77%	2.84%	90.28%
White (not Hispanic)	1.81%	2.29%	2.66%	3.19%	3.85%	4.23%	4.44%	144.79%

Certificate and Degrees Earned in High School Overview

Students in every category are increasingly earning college certificates and/or degrees while in high school compared to 2014. Nearly 4.2% of female graduates completed high school with a postsecondary credential, compared to 3.4% of male graduates (well over 100% increase since 2014 for both genders). While students who qualify for FRL are less likely to graduate with a postsecondary credential than those who do not qualify for FRL, 3% compared to 4.1%, both categories also increased well over 100% since 2014.¹ Additionally, almost all race and ethnic groups except American Indian or Alaska Native and Hawaiian or Pacific Islander (both groups of which we have low numbers of in Colorado) increased in credential completion while in high school since 2019. Hispanic students decreased slightly in earning a postsecondary credential after years of gains. Only White students (4.44%) had higher than the statewide average of students (3.78%) who graduate with a postsecondary credential while in high school.



Though all of these pathways are promising, to realize their promise of increasing access and reducing costs, the postsecondary education sector and the workforce must recognize them.

Industry and postsecondary institutions should understand and acknowledge the value of CTE programs and experiences. Higher education institutions should continue to recognize the credit that students receive through dual enrollment and work with high schools to ensure that students know how those credits apply toward a degree. Finally, industry and postsecondary credentials awarded in high school should be entry points to higher degrees. This way, if those credentials become obsolete, students know that they can return to postsecondary education and build on their existing knowledge without starting over.

¹ Data Table 5 in Appendix 1.

SECTION II:

Pathways to Enrolling in Higher Education

The efforts noted in Part I have the promise of increasing access and making college education more affordable and attainable. This work is more important than ever as the many impacts of COVID-19 contributed to a decrease of more than 5% of our state's 2020 high school graduates enrolling in college (50.5%) within a year compared to the previous graduating class. This was after a stagnant college-going rate for years before the pandemic.

Increasing college-going rates will require a deliberate and targeted effort. This section provides information that can help policymakers target resources to ensure more students choose to pursue the postsecondary pathways that Colorado's economy demands.



Understanding Trends in College-Going Behavior

There continues to be a strong relationship among 2020 high school graduates between participating in one of the college-pathways programs discussed in Section I and enrolling in a postsecondary institution. The relationship is particularly strong for dual enrollment, where there is a growing body of academic research supporting its effectiveness in improving college-going behavior.¹ Those who achieved a credential in high school were also far more likely to enroll in postsecondary education. The relationship is less profound for those enrolling in a CTE program.

		Students That Participate	Students That Do Not Participate
College-Going Rates for Participants of High School Pathways into Postsecondary Education	CTE Enrollee	51.2%	48.7%
	Dual Enrollment	64.3%	40.3%
	Credential Attainment in High School	59.4%	50.1%

The pandemic negatively impacted college-going rates for every race and ethnic group after some years of gains. American Indian or Alaska Native students decreased their college-going rate from 2019 to 2020 by 22.95% - and 14.15% fewer Hispanic students enrolled in college in 2020 compared to their 2019 counterparts. Compared to 2015 graduates, almost all groups have dropped in their college-going rates. Continued and more focused work toward guiding all students, particularly our underrepresented student populations, into a college-going pathway is critical if we are to meet our state's credential attainment and equity goals.

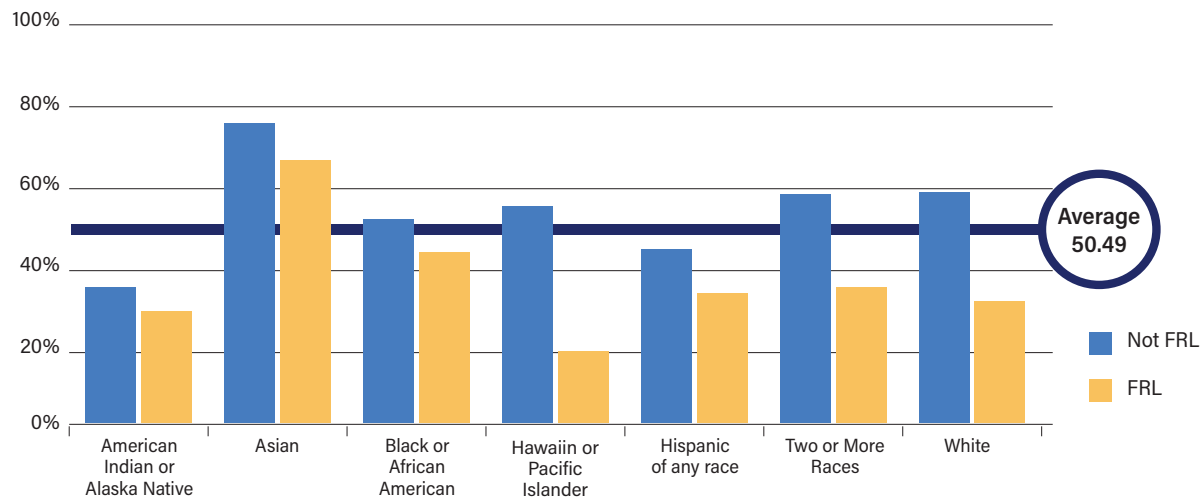
¹ Colorado Department of Higher Education (2021) Concurrent Enrollment 2019-2020 Academic Year. https://highered.colorado.gov/Publications/Reports/Enrollment/FY2020/2020_Concurrent_Enrollment_July_2021.pdf

College-Going Rate by Race/Ethnicity Over Time

	2015	2016	2017	2018	2019	2020	Percent Change from 2015
American Indian or Alaska Native	41.04%	41.93%	38.06%	43.82%	44.95%	34.64%	-15.62%
Asian	72.66%	75.00%	75.23%	79.00%	78.80%	71.85%	-1.11%
Black (not Hispanic)	53.88%	53.01%	54.84%	55.08%	51.91%	47.83%	-11.23%
Hawaiian/Pacific Islander	41.09%	49.29%	43.20%	47.92%	44.37%	42.45%	3.31%
Hispanic	43.64%	44.22%	45.79%	45.85%	45.94%	39.44%	-9.63%
Two or More Races	58.87%	58.53%	58.22%	59.14%	59.03%	52.32%	-11.13%
White (not Hispanic)	61.93%	60.72%	61.15%	61.42%	61.13%	55.78%	-9.93%

Figure 2 presents college-going rates by FRL eligibility and race/ethnicity. Again, the pandemic harmed all categories, especially our low-income students. Decreases in enrollment for FRL eligible students for nearly all racial and ethnic groups was at least 5% less for 2020 graduates than for 2019 graduates. The decrease was almost level for each category. However, FRL eligible students who are Two or More Races, Hispanic, and White saw the greatest decrease in college enrollment. Comparing enrollment rate differences by category between FRL eligible and not FRL eligible, American Indian or Alaska Native, Black or African American, and Hispanic students have the smallest difference. While low-income White students and Hispanic or Latinx students enroll at similar rates, non-FRL eligible Hispanic students matriculate to college at the second-lowest rates of any race or ethnicity (American Indian or Alaska Native is the lowest). Low-income Asian students (65.1%) are more likely to enroll in postsecondary education than non-FRL eligible members of any of the other race/ethnicity groups.¹

FIGURE 2: College-Going Rate by Race/Ethnicity and Income For 2020 High School Graduates



These trends suggest that for Colorado to close some of its most significant equity gaps, it is essential to understand what is happening within populations including by income level and location and size of the student's school district. The state should work to create targeted strategies that address the needs of each group and each individual student to ensure that all students have access to college.

¹ Data Table 9 in Appendix 1.

College-Going Rate of Students from Rural Areas Over Time

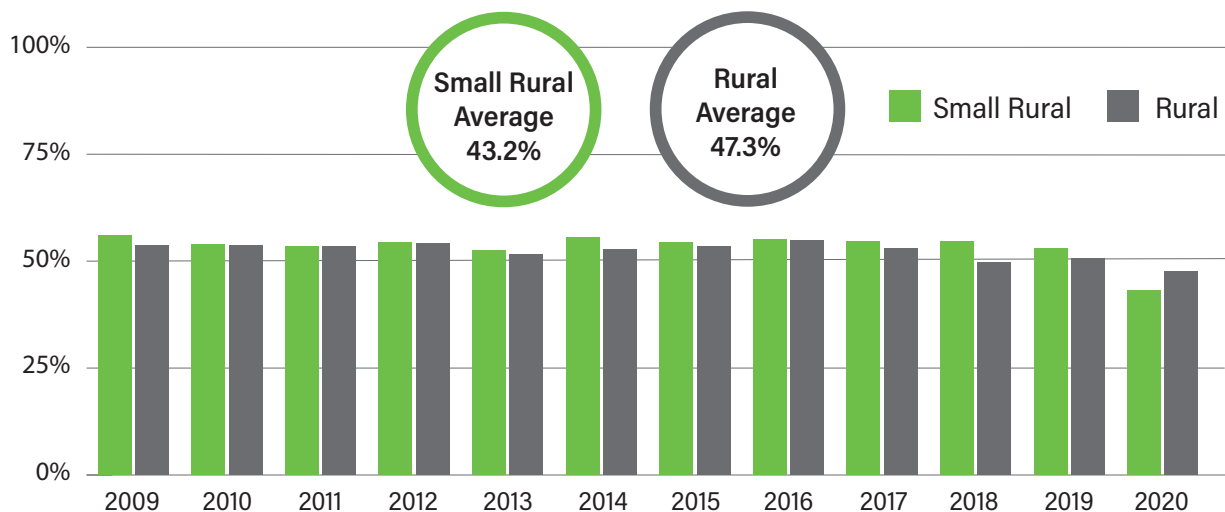
For the second year, the Postsecondary Report is including information on college-going rates for students from Colorado's rural areas. Students' school district location and enrollment size can also have an impact on college enrollment rates. Rural areas often have fewer resources and opportunities than their urban counterparts. A Colorado school district is determined to be rural by the size of the district, the distance from the nearest large urban/urbanized area and having a student enrollment of 6,500 students or less. Small rural districts have a student population of fewer than 1,000 students.

The college enrollment rate for 2020 high school graduates who attended schools in all rural areas (46.3%) is lower than the state average (50.5%). The pandemic had a greater negative impact on rural student enrollment than on students from other areas. Before the pandemic, the percentage had remained relatively stagnant.

The pandemic impact was most profound on small rural districts as only 43.2% of their high school graduates enrolled in college. This is a drop of almost 10% compared to 2019 small rural grads. Rural districts larger than small rural saw a 47.3% college enrollment rate.

College Enrollment for Rural Areas			
	HS Graduates	College Enrollment	Enrollment Percent
2020	11072	5124	46.28%
2019	9032	4638	51.35%
2018	8941	4553	50.92%
2017	8468	4528	53.47%
2016	7970	4382	54.98%
2015	7854	4214	53.65%
2014	7972	4270	53.56%
2013	8397	4349	51.79%
2012	8331	4516	54.21%
2011	8897	4750	53.39%
2010	8958	4811	53.71%
2009	8933	4855	54.35%

FIGURE 3: College-Going Rate by Rural and Small Rural Areas





Higher Education Pathways

Students make many choices about their higher education. They decide how soon to enroll in college after high school, whether to pursue a public, private or proprietary institution, as well as choosing to attend an area technical college, two-year college, or four-year institution. They also decide to enroll within Colorado or out of state. The type of degree they want to pursue can guide their decisions. Regardless of the decision, there are many excellent opportunities in Colorado.

When we think about college attendance, we imagine students making a single choice for a school, enrolling and completing at that institution in a linear time frame. However, this is not how today's students interact with the higher education system.

Figure 4 on the next page illustrates the many paths that Colorado's high school class of 2015 has taken through the postsecondary system.

2015 High School Graduates Choices and Credentials Earned by 2021



13%

enrolled in a public two-year institution



29%

enrolled in a public four-year institution



7.7%

enrolled earned a certificate or associate degree by 2021

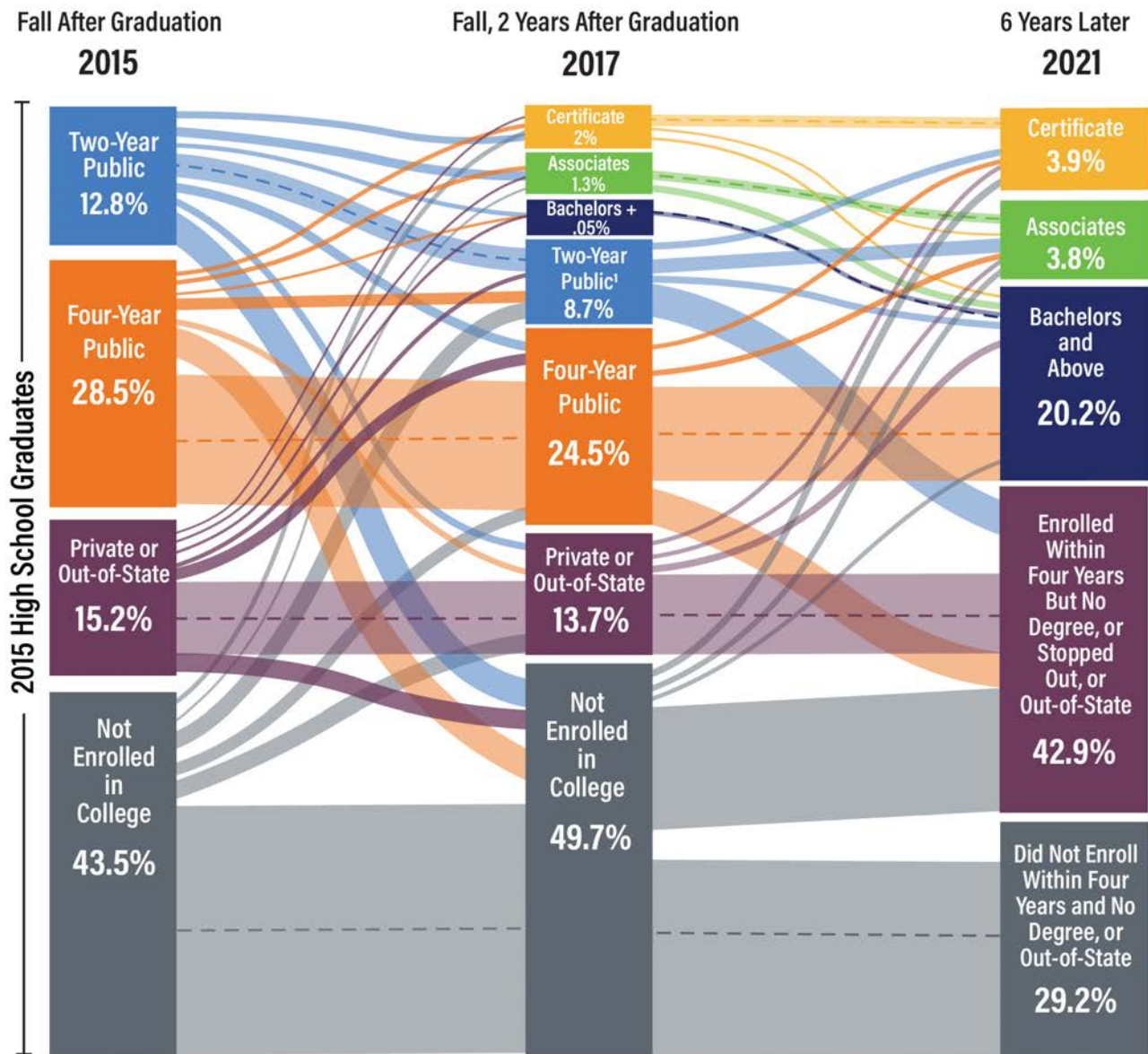


20.2%

earned a bachelor's degree by 2021

Students often move between education sectors over the course of their education. Figure 4 on page 25 shows the pathways that 2015 graduates took over six years.

FIGURE 4: Pathways of High School Graduates Through Postsecondary Education



- 2015 represents student enrollment information.
- 2017 and 2021 includes credentials earned as well as enrollment information for students who had not yet earned a credential.
- CDHE currently does not received data on credentials earned out-of-state.

Students who enroll in colleges and universities the fall after high school graduation

In-state public colleges or universities are by far the most popular choice for Colorado high school graduates. For the 2020 graduating class, 75% attended an in-state public college or university in the fall 2020 term. Four-year institutions (either public or private, in or out-of-state) enroll the most students who matriculate to college in the fall following high school graduation (73% for the 2020 class).

Students who delay enrollment into colleges or universities

When expanding college entry to include the spring and fall one year after high school graduation (a “gap” term or year), the college-going rate increases an average of more than 7% (for all the high school graduate classes of 2014-2019). The college-going rate increases an additional over 3% on average for students who enroll two spring or fall terms after high school graduation. Further, students who delay enrollment are far more likely to enroll in a two-year than a four-year institution. With the overall college enrollment rate down for 2020 high school graduates due to the pandemic, it will be interesting to see if there will be a greater increase in enrollment one year after graduation in next year’s report.

Students who delay enrollment are more likely to attend a two-year institution.

College-Going Rate and College Enrollment By Institution Type Over Time

	TRADITIONAL FALL ENROLLMENT			STUDENTS DELAYING ENROLLMENT			STUDENTS DELAYING ENROLLMENT		
	Enrolled in the Fall after Graduation			Enrolled in the Spring or Fall the Year after Graduation			Enrolled in the Spring or Fall Two Years after Graduation		
	College-Going	2-Year	4-Year	College-Going	2-Year	4-Year	College-Going	2-Year	4-Year
	Cumulative	%	%	Cumulative	%	%	Cumulative	%	%
2020	50.49%	27.46%	72.54%						
2019	56.34%	26.78%	73.22%	62.54%	62.54%	37.43%			
2018	56.63%	27.37%	72.63%	63.76%	65.14%	34.86%	66.14%	59.58%	40.42%
2017	56.36%	26.83%	73.17%	63.77%	64.95%	35.05%	66.58%	62.64%	37.36%
2016	55.81%	26.79%	73.21%	64.29%	61.48%	38.52%	67.08%	62.74%	37.26%
2015	56.55%	25.05%	74.95%	64.28%	62.04%	37.96%	68.03%	56.22%	43.78%
2014	55.95%	25.67%	74.33%	63.38%	63.66%	36.34%	66.22%	65.27%	34.73%

The number of high school students is declining nationally, as a result, more out-of-state institutions are recruiting with greater intensity in Colorado. Just under a quarter (24.9%) of high school graduates in 2020 attended an out-of-state college, a slight decrease from last year but the second-highest percentage in 11 years. Only 19.5% of 2009 graduates attended out-of-state institutions. More must be done to keep our Colorado graduates in-state especially, as reported by the state demographer, migration to our state is slowing as is international student enrollment.

FIGURE 5: Out-of-State Enrollment

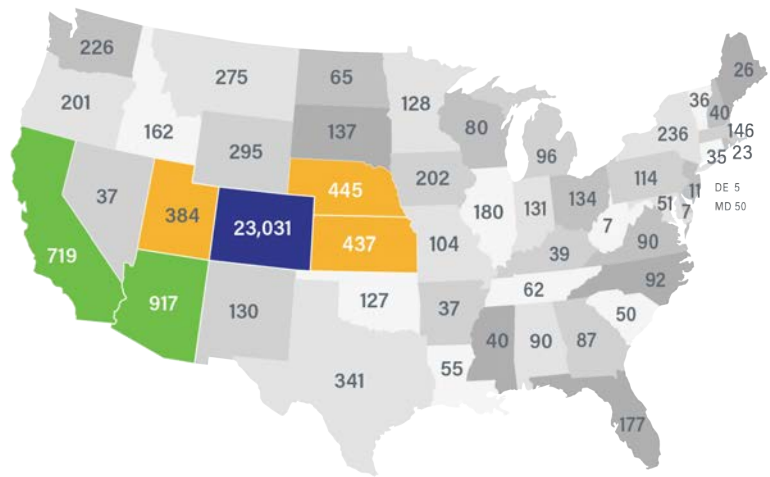


Figure 5 illustrates where high school graduates in Colorado enroll. Arizona and California are by far the top out-of-state choices for Colorado graduates. Nebraska, Kansas, and Utah are the next most popular choices – Wyoming enrollment dropped by more than 200 students.

FIGURE 6: In-State Enrollment by Race/Ethnicity and Income

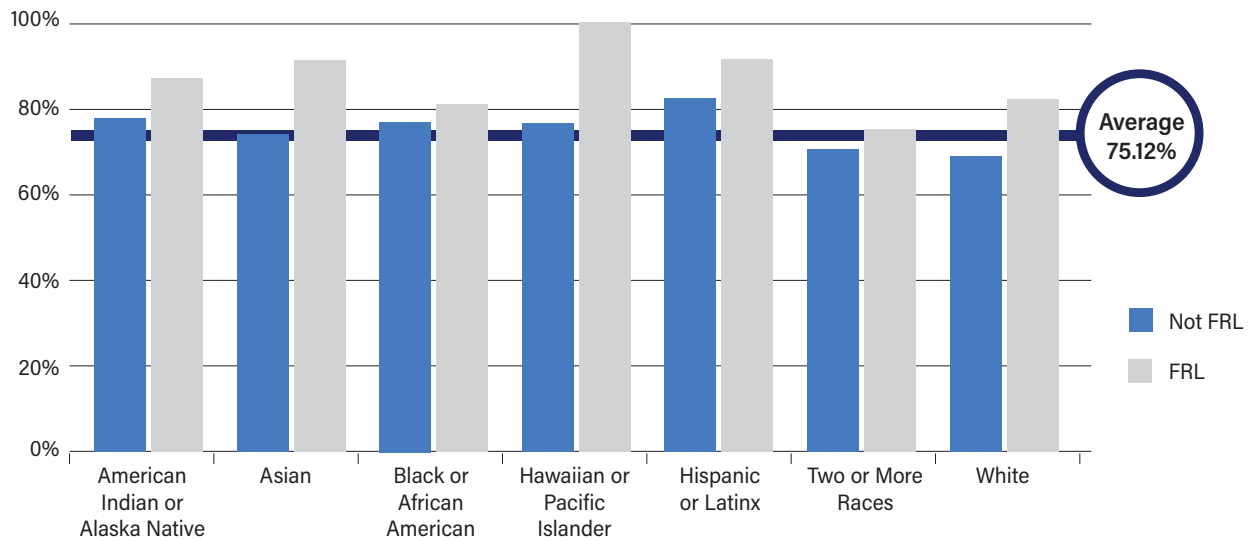


Figure 6 displays enrollment at in-state institutions by Colorado high school grads by race/ethnicity and income. Students who qualify for FRL are more likely to enroll in-state than those who do not qualify for FRL. Amongst those not eligible for FRL, Hispanic students are most likely to enroll in-state. For those eligible for FRL, Hawaiian or Pacific Island, Hispanic and Asian students are most likely to enroll at an in-state institution. White students not eligible for FRL are the most likely to enroll out-of-state.



Who Is Not Enrolling in College

Ensuring that more Coloradans access postsecondary education is essential to reaching Colorado's credential attainment and equity goals. States have focused on increasing access to higher education for decades because higher education provides significant quality of life benefits for graduates. Increasing the college-going rate is also an essential strategy for Colorado to meet workforce demands. Recent high school graduates are one of the most accessible populations for increasing attainment since they are already in the educational system. However, work is being done in the state to re-engage adults who have not earned a college credential. As noted earlier, 29,136 high school 2020 graduates did not complete a credential in high school or enroll in a postsecondary institution. Although some of these students may have another career path like the military, seminary or private and occupational school in mind, or may have delayed enrollment, many are strong candidates for institutions to pursue for enrollment.

Ensuring that more Coloradans access postsecondary education is essential to reaching Colorado's credential attainment and equity goals.

SECTION III:

Pathways to Success in Higher Education

As previously illustrated on Figure 4, graduates who enroll in postsecondary education do not always follow linear pathways. Instead, they may move across higher education institutions and between academic programs. But institutions in Colorado continue to do a better job at graduating their students on time. Approximately 39.2% of 2017 high school graduates who enrolled in an in-state public institution attained a credential within four years. This marks the ninth consecutive year that four-year college completion rates for high school graduates in Colorado have improved. The state and institutional focus on enhancing student pathways to ensure more students have the momentum to graduate, starting early in their postsecondary career, may be driving some of these trends. This next section of the report looks at how high school graduates perform who enroll in the fall term after graduation at an in-state public college or at one of the three private institutions that report data to the state¹. This section will also provide information on developmental education enrollment rates and outcomes. Indicators of success that this report will focus on include early degree program enrollment, grade point average (GPA) and credit accumulation.

¹ University of Denver, Regis University and Colorado Christian University are the private institutions that submit data to the CDHE.

Initial Pathways

Most high school graduates in Colorado pursue a bachelor's degree. Very few recent high school graduates (4%) pursue a certificate in their first year after high school. However, students who received a postsecondary credential¹ while in high school were slightly more likely to pursue shorter degree paths (certificate or associate degree) than students who did not earn a credential in high school.



Postsecondary Credential Enrollment for High School Graduates of 2020

	All Students	Student with No Credential in High School	Student Receiving a Credential in High School
Certificate	4%	3% ²	6%
Associate Degree	30%	30%	36%
Bachelor's Degree or Beyond	66%	67%	58%

Growing evidence suggests that choosing a specific degree pathway early in students' academic careers can help ensure they complete their postsecondary education, even if they change their minds and pursue different paths later. Additionally, since outcomes for students who transfer from a two-year institution to a four-year institution are better when they pursue a defined degree pathway, it is important to ensure that more students—and particularly community college students—are identifying and pursuing a specific degree path.

1 These credentials, often awarded through dual enrollment, may include CTE certificates, academic certificates or associate degrees.

2 Includes one- or two-year certificates offered at institutions that report data to the State Unit Record Data System – state area technical colleges, two-year and four-year institutions, and Colorado Christian University, Regis University and the University of Denver (SURDS).



Developmental Education Needs and Outcomes

This section explores the developmental needs of Colorado's recent high school graduates, examines the postsecondary success of students who require developmental education and looks at equity considerations as they relate to developmental education.

There is a growing body of research showing that assessment scores used to place students into developmental education are a poor predictor of future college success¹, and therefore, college readiness. As a result, colleges have changed both their assessment and placement policies per Colorado's developmental education reform efforts over the years. The changes included expanding the number and types of measurements institutions can use to determine if the student is ready to enroll in a college-level gateway course.

Additionally, the use of Supplemental Academic Instruction (SAI) began in Colorado and was propelled by H.B. 19-1206 which, in part, requires institutions to submit a plan to CCHE to replace almost all of their standalone,

traditional developmental education courses with SAI. SAI allows students to enroll directly into college-level courses and receive developmental support to help them succeed, such as additional labs and tutoring. This saves students money and time and increases their likelihood of passing gateway courses and decreases their chances of leaving college².

These innovative changes in developmental education in Colorado are working. The percentage of students requiring developmental education dropped by almost 10 percentage points from 2017 to 2018. As demonstrated in the charts that follow, this drop is benefiting all students, particularly low-income and students of color. While the 2020 grads overall had an increase in developmental education needs, there continues to be a decrease for students who enroll at two-year institutions where reform is at the forefront. As SAI expands in use across the state and standalone developmental education courses decrease, we should see a positive trend amongst all institutions which will contribute to an increase in student credential completion.

1 <https://ccrc.tc.columbia.edu/media/k2/attachments/high-stakes-predict-success.pdf> https://ies.ed.gov/ncee/edlabs/regions/northwest/pdf/REL_2016123.pdf <https://ccrc.tc.columbia.edu/publications/predicting-success-placement-tests-transcripts.html>

2 Bailey, T., Jeong, D. W., & Cho, S.-W. (2010). Referral, enrollment and completion in developmental education sequences in community colleges. *Economics of Education Review*, 29(2), 255-270.

Part 1:

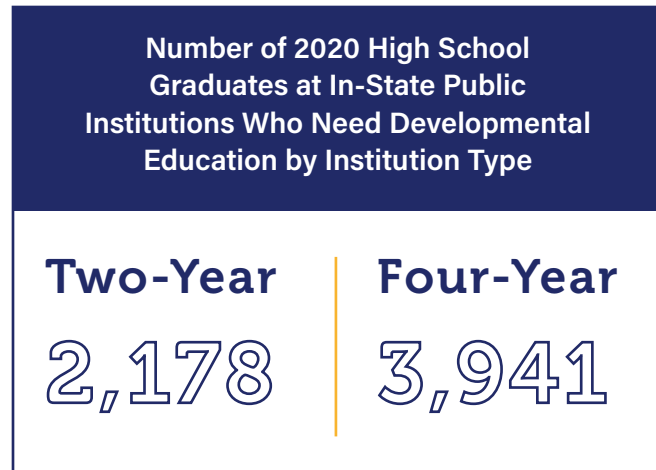
Developmental Education Needs

More than 30% of the class of 2020 who enrolled in a Colorado public institution were placed in developmental education. This is an increase from 2019, but after a significant drop in 2017 as referenced above. The below chart depicts overall developmental education needs and course enrollment. In addition to changes in developmental education policies and practices, the recent decrease in developmental education needs can also be attributed to improved preparation and increased participation in college pathways of high school students.

High School Graduates at In-State Public Institutions Requiring Developmental Education

High School Graduation Year	High School Grads Enrolling In-State	Assessed as Needing Developmental Education	Enrolled in Developmental Education Course in Year 1	Not Assessed But Took a Developmental Education Course in Year 1	Total Requiring Developmental Education	% Requiring Developmental Education
2020	20,252	5,544	1,397	575	6,119	30.21%
2019	21,806	4,936	1,874	897	5,833	26.75%
2018	21,941	4,750	2,530	942	5,692	25.94%
2017	21,234	6,770	3,072	613	7,383	34.77%
2016	21,444	6,708	3,655	989	7,697	35.89%
2015	19,952	6,443	3,608	550	6,993	35.05%
2014	19,143	5,714	3,625	762	6,476	33.83%
2013	20,196	5,486	4,374	1,214	6,700	33.17%
2012	20,220	5,718	4,863	1,472	7,190	35.56%
2011	21,790	7,185	5,600	1,138	8,323	38.20%
2010	22,297	7,590	6,095	1,227	8,817	39.54%
2009	22,601	7,117	5,826	1,228	8,345	36.92%

The gap in the percentage of high school graduates who require developmental education courses between two-year institutions and four-year institutions is shrinking (35% versus 28%). The need for developmental education for 2020 grads increased by over 7% at four-year institutions as the developmental need continues to decrease at two-year institutions (over 6%).



High School Graduates at In-State Public Institutions Requiring Developmental Education by Institution Type

High School Graduation Year	Two-Year Institutions		Four-Year Institutions	
	High School Grads Enrolling In-State	% Needing Developmental Education	High School Grads Enrolling In-State	% Needing Developmental Education
2020	6,296	34.59%	13,956	28.24%
2019	6,461	41.1%	15,345	20.72%
2018	6,522	44.5%	15,419	18.10%
2017	5,883	58.6%	15,351	25.63%
2016	6,222	55.9%	15,222	27.72%
2015	5,671	61.5%	14,281	24.56%
2014	5,173	56.7%	13,970	25.38%
2013	5,845	58.1%	14,323	23.03%
2012	6,376	62.6%	13,844	23.09%
2011	7,052	65.6%	14,738	25.11%
2010	7,594	66.9%	14,703	25.43%
2009	7,479	64.58%	15,122	23.24%

The below table shows that developmental education rates for all race and ethnicity groups increased for 2020 grads. Consistent with national trends, there are significant equity gaps in developmental education needs across race and ethnic groups. The aforementioned drop in overall need for developmental education starting in 2018 which coincided with the developmental education policy changes benefited all race/ethnicities. However, African American or Black and Hispanic or Latinx students are still more than twice as likely to require developmental education than White students in Colorado. Concerns regarding college preparation for high school students who needed to adjust to constantly changing learning environments during the pandemic will result in great interest regarding if the need for developmental education will continue to increase especially for our low-income and students of color.

High School Graduates at In-State Public Institutions Requiring Developmental Education by Race/Ethnicity

	2012	2013	2014	2015	2016	2017	2018	2019	2020
American Indian or Alaska Native	53.3%	42.1%	48.8%	54.8%	46.8%	45.1%	44.7%	29.2%	46.15%
Asian	29.2%	26.9%	27.8%	25.2%	27.1%	26.2%	18.0%	17.5%	18.36%
Black (not Hispanic)	61.7%	60.0%	63.8%	58.6%	60.7%	58.7%	46.5%	50.9%	55.12%
Hawaiian/Pacific Islander	47.7%	39.0%	40.0%	48.6%	43.5%	36.6%	35.1%	33.3%	40.48%
Hispanic	54.2%	49.8%	51.5%	53.3%	53.4%	52.5%	38.8%	39.3%	43.83%
Two or More Races	33.9%	32.7%	31.1%	33.7%	33.4%	30.4%	22.3%	23.9%	28.74%
White (not Hispanic)	28.6%	26.5%	26.1%	27.2%	27.5%	26.1%	19.1%	19.9%	23.08%

The below table shows that female students are consistently more likely than their male counterparts to require developmental education. Finally, students qualifying for FRL (low-income) are almost twice as likely to require developmental education as those who do not qualify for FRL.

High School Graduates at In-State Public Institutions Requiring Developmental Education by Gender and Income

	2012	2013	2014	2015	2016	2017	2018	2019	2020
Female	38.5%	35.5%	37.8%	37.5%	38.7%	37.4%	28.8%	30.5%	34.95%
Male	32.2%	30.5%	29.2%	32.2%	32.7%	31.7%	22.7%	22.2%	24.48%
Not FRL	29.8%	28.1%	29.6%	29.8%	29.9%	27.9%	21.3%	21.8%	25.21%
FRL	56.6%	52.3%	52.5%	53.5%	54.7%	55.2%	41.1%	41.4%	47.20%

Part 2:

Developmental Education by Subject

The need for developmental math in Colorado is much greater than for developmental English (either reading or composition). Of the class of 2020, 27% required developmental math compared to just under 12% who required developmental English.

High School Graduates at In-State Public Institutions Assessed or Enrolled into Developmental Math

High School Graduation Year	High School Grads Enrolling In-State	Assessed as Needing Developmental Math	Not assessed but Enrolled in Developmental Math in Year 1	Total Requiring Developmental Math	% Requiring Developmental Math
2020	20,252	4,996	557	5,553	27.42%
2019	21,806	4,104	895	4,999	22.92%
2018	21,941	4,058	878	4,936	22.50%
2017	21,234	5,625	647	6,272	29.54%
2016	21,444	5,571	993	6,564	30.61%
2015	19,952	5,510	578	6,088	30.51%
2014	19,143	4,731	845	5,576	29.13%
2013	20,196	4,374	1,207	5,581	27.63%
2012	20,220	4,504	1,484	5,988	29.61%
2011	21,790	5,815	1,294	7,109	32.63%
2010	22,297	6,053	1,430	7,483	33.56%
2009	22,601	5,656	1,357	7,013	31.03%

High School Graduates at In-State Public Institutions Assessed or Enrolled into Developmental English

High School Graduation Year	High School Grads Enrolling In-State	Assessed as Needing Developmental English	Not assessed but Enrolled in Developmental English in Year 1	Total Requiring Developmental English	% Requiring Developmental English
2020	20,252	2,444	121	2,23	11.96%
2019	21,806	2,658	186	2,531	11.61%
2018	21,941	2,643	304	2,759	12.57%
2017	21,234	4,468	199	4,116	19.38%
2016	21,444	4,470	292	4,297	20.04%
2015	19,952	4,256	145	3,926	19.68%
2014	19,143	3,633	209	3,444	17.99%
2013	20,196	3,584	723	3,796	18.80%
2012	20,220	3,806	892	4,205	20.80%
2011	21,790	4,719	763	4,903	22.50%
2010	22,297	5,063	785	5,301	23.77%
2009	22,601	4,825	779	5,016	22.19%

Percent of 2020 High School Graduates at In-State Public Institutions with Developmental Education Needs by Subject

Both Subjects

30%

Math

27%

English

12%

For students with developmental needs, early enrollment in developmental education is important to accelerate time to degree and increase the likelihood of success. The below Table illustrates that about 23% of students requiring developmental education enrolled in a developmental education course or SAI in their first year. This percentage has dropped by almost 50% since 2010 and experienced a significant drop the past two years. Students are either increasingly delaying enrolling in their developmental or SAI courses their first year or are instead choosing to enroll in college-level or gateway courses.

High School Graduates Assessed as Needing Developmental Education Who Enrolled in Developmental Education and/or Supplemental Academic Instruction in Their First Year of College

High School Graduation Year	Assessed as Needing Developmental Education	Assessed and Took a Developmental Course in Year 1	Assessed and Took SAI in Year 1	Assessed and Took a Developmental Course OR SAI in Year 1	% Assessed and Took a Developmental Course OR SAI in Year 1
2020	5,544	822	439	1,261	22.75%
2019	4,936	977	619	1,596	32.33%
2018	4,750	1,588	566	2,154	45.35%
2017	6,770	2,459	861	3,320	49.04%
2016	6,708	2,666	630	3,296	49.14%
2015	6,443	3,058	516	3,574	55.47%
2014	5,714	2,863	437	3,300	57.75%
2013	5,486	3,160	70	3,230	58.88%
2012	5,718	3,391	37	3,428	59.95%
2011	7,185	4,462	0	4,462	62.10%
2010	7,590	4,868	0	4,868	64.14%
2009	7,117	4,598	0	4,598	64.61%

Part 3:

Leading Indicators and Postsecondary Outcomes for Developmental Education Students

The below table shows that students who are placed in developmental education pursue fundamentally different pathways than their counterparts. However, the trend in developmental education needs is growing at four-year institutions and is decreasing at two-year institutions. Associate degrees, which are mostly offered at two-year institutions, had a developmental education decrease of 10%. While bachelor's degrees or above, which are mostly offered at four-year intuitions, experience an increase of 10% in need.

Developmental Education Need by Program Enrollment

Developmental Need	Certificate	Associate	Bachelor or Above
No	2.9%	26.6%	68.3%
Yes	3.7%	38.5%	56.6%

As the below chart illustrates, students with developmental needs are much less likely to persist or complete a credential their first year in college. Compared to the previous year, persistence and completion rates are decreasing for all categories. While almost all races and ethnicities dropped in persistence rates, particularly for those with developmental education needs, Hawaiian/Pacific Islander students struggled the most. Asian students continue to persist or earn a credential at the highest rates. Females are more likely to persist or complete their first year than males. Additionally, low-income students struggle as those eligible for FRL have much lower rates in persisting or completing their first year than students who are not eligible for FRL.

First-Year Persistence* or Credential Completion by Developmental Education Need

Developmental Need	First-Year Persistence	First-Year Persistence or Completion
No	80.1%	82%
Yes	65.2%	66.5%

* 2019 Cohort

Race and Ethnicity Persistence and Completion in First-Year by Developmental Need*

	First-Year Persistence		First-Year Persistence or Completion	
	Developmental Ed Need	NO Developmental Ed Need	Developmental Ed Need	NO Developmental Ed Need
American Indian or Alaska Native	64.40%	76.70%	66.10%	76.70%
Asian	76.20%	91.70%	76.70%	91.70%
Black (not Hispanic)	64.40%	79.30%	64.60%	80.00%
Hawaiian/Pacific Islander	46.20%	70.80%	46.20%	70.80%
Hispanic	65.20%	77.30%	66.90%	78.80%
Two or More Races	65.70%	84.80%	66.30%	85.30%
White (not Hispanic)	69.70%	86.40%	71.40%	87.40%

* 2018 Cohort

Gender and Income Persistence and Completion in First-Year by Developmental Need*

	First-Year Persistence		First-Year Persistence or Completion	
	Developmental Ed Need	NO Developmental Ed Need	Developmental Ed Need	NO Developmental Ed Need
Female	70.10%	86.60%	71.30%	87.50%
Male	63.40%	81.80%	65.50%	83.00%
No FRL	70.60%	86.40%	72.00%	87.40%
FRL	62.10%	75.00%	63.70%	76.20%

* 2018 Cohort

The following tables show credential completion rates. Students requiring developmental education are almost half as likely to earn a credential in four years. However, they are slightly more likely to earn a credential within two years. This could be due to a higher percentage of students enrolled in programs that can be completed in two years have a higher percentage of developmental needs. By race and ethnicity, four-year completion rates are lowest for American Indian/Alaska Native and African American or Black students who have developmental education needs. Once again, females are much more likely than males to graduate in two or four years. Students eligible not eligible for FRL and need developmental education are only slightly more likely to graduate in two years than students who are eligible for FRL. In a few years, it will be interesting to see if the decrease in developmental education needs at two-years and increase in need at four-years will impact completion rates by demographics.

Completion by Developmental Need in 2 Years and 4 Years

Developmental Need	Credential Completion Within 2 Years (2018 Cohort)	Credential Completion Within 4 Years (2016 Cohort)
No	7.5%	44.6%
Yes	9.5%	24.5%

Race and Ethnicity Credential Completion Within 2 Years and 4 Years

	Credential Completion Within 2 Years*		Credential Completion Within 4 Years**	
	Developmental Ed Need	NO Developmental Ed Need	Developmental Ed Need	NO Developmental Ed Need
American Indian or Alaska Native	5.10%	6.80%	11.50%	32.20%
Asian	4.00%	4.00%	23.90%	46.20%
Black (not Hispanic)	3.60%	6.30%	13.30%	28.30%
Hawaiian/Pacific Islander	NULL	4.20%	20.00%	30.80%
Hispanic	9.80%	8.30%	23.60%	35.80%
Two or More Races	8.40%	5.70%	19.60%	34.60%
White (not Hispanic)	11.00%	7.60%	27.70%	48.10%

*2018 Cohort, **2016 Cohort

Gender and Income Credential Completion Within 2 Years and 4 Years

	Credential Completion Within 2 Years*		Credential Completion Within 4 Years**	
	Developmental Ed Need	NO Developmental Ed Need	Developmental Ed Need	NO Developmental Ed Need
Female	9.70%	8.29%	26.94%	50.98%
Male	9.31%	6.56%	21.17%	37.97%
No FRL	9.88%	7.45%	25.70%	46.84%
FRL	8.96%	7.49%	22.43%	33.73%

*2018 Cohort, **2016 Cohort

Momentum Measures

Student performance early in college is a crucial predictor of later success. Evidence shows that the first-year GPA is a significant indicator of persistence,¹ and there is growing evidence to support first-year credit accumulation as an indicator of long-term academic success in college.² Additionally, students who have identified a program of study and have taken coursework in that program of study in their first year are more likely to complete a degree.



First year GPA for Colorado's 2020 high school grads remained about the same from the previous year but has risen each year since 2009 (2.7 GPA).

2.9

Cumulative GPA

Credit accumulation has also plateaued after years of increasing – 2020 high school grads completed 32.1 cumulative credit hours on average in their first year of college. In 2009, students averaged only 28.1 credit hours completed in their first year. There was a slight decrease in the percentage of credit hours completed by number bands. For the class of 2020, 48.7% of students completed more than 30 credits in their first year (50.1% for 2019 grads but up from 40.1% in 2009). And 64.7% of 2020 grads completed 24 or more credit hours in their first year, while 67.1% of 2019 grads did so.³

First-Year College Credit Accumulation for 2020 High School Graduates

79%

15 or More Credits

65%

24 or More Credits

49%

30 or More Credits

1 S. Stewart, D. H. Lum, and J. Kim (2015), [Factors Influencing College Persistence for First-Time Students](#), Journal of Developmental Education.

2 D. Jenkins and T. Baily (2017), [Early Momentum Metrics: Why They Matter for College Improvement](#), Community College Research Center.

3 Data Table 10 in Appendix 1. Averages do not include students who accumulated 0 credits; the first-year credit accumulation rates do.



Photo Courtesy of Fort Lewis College

Leading Indicators by Race/Ethnicity and Income

When looking at leading indicators by demographic group, equity gaps emerge early. After the first year of college, Black or African American students completed 7 fewer credits than the overall average. Black or African American students also had the lowest average GPA (2.4). Hispanic or Latinx students had higher GPAs (2.7) and credit accumulation on average (28.4) than Black or African American students but are still substantially below the overall average. There are also significant gaps between those who qualified for FRL in high school and those who did not. Almost 20% more students who did not qualify for FRL completed 24 or more credit hours (full-time course load) than students who qualified for FRL. This difference is significant, as enrolling in more credits can help contain costs for students by reducing the time needed to obtain their degree. It also increases their likelihood of obtaining a degree and a more prosperous future. Colorado must tailor supports to meet the unique needs of diverse and low-income students earlier in the education pipeline to erase equity gaps

Colorado must tailor supports to diverse students to meet their unique needs earlier in the education pipeline to erase equity gaps and meet the demands of the workforce.

and meet the demands of the workforce.¹ CDHE did an initial analysis to understand whether there was evidence that GPA and credit accumulation in a student's first year led to an increase in college completion. When controlling for demographics, preparation and institution type, initial analysis suggests that there is both a meaningful and statistically significant relationship between these factors. This result aligns with national research that suggests the impact of first-year GPA and credit accumulation on a student's likelihood of success is significant.

¹ Data Table 12 in Appendix 1.

Persistence Rates

First-year retention and persistence are important indicators of whether a student will earn a degree; most students who drop out do so in their first year. Figure 4 on page 25 illustrates this trend and helps us understand how students are moving through the system. First-year persistence rates reflect the number of students who enroll in the second year of their education either at the institution they enrolled in initially or at some other institution in the country. The table includes persistence and completion rates for students who enroll in a postsecondary institution as well as students who complete a certificate or degree by the following fall. All persistence and completion percentages decreased from the year previous.

For the class of 2019,¹ 76.7% of students who enrolled in an in-state college that fall enrolled for a second year in fall 2020 or received a credential.² Colorado's retention rates remain above the national average; however, as national rates climb, Colorado's retention rate has stayed constant.³

The first-year persistence rate for 2019 Colorado high school graduates who attended four-year institutions was 84.6%. Comparatively, the persistence rate for high school graduates who attended two-year colleges was 57.7%. When the number of students who received a degree or credential is included, there is a higher increase for community colleges in part due to offering and awarding one-year certificates. To illustrate, the persistence and completion rate for 2019 graduates at two-year institutions was 61.4%.

Persistence for High School Graduates of 2019

	Persistence	Persistence and Completion
Overall	76.7%	78.0%
Two-Year Institutions	57.7%	61.4%
Four-Year Institutions	84.6%	85.0%

Persistence Rates by Gender, Race/Ethnicity and Income

Persistence rates also reflect equity gaps. Females (79%) have a higher persistence than males (74%). The first-year persistence for Hispanic or Latinx students is 68% (lowest), for American Indian or Alaska Natives is 74%, and for Black or African American students is 71%. Only 66% of students who qualified for FRL persist to the second fall semester, compared to 80% of students not eligible for FRL. To erase equity gaps in attainment, the state must become more effective in supporting low-income students and students of color to return to college after their first year.⁴

1 Data Table 13 in Appendix 1.

2 Retention rates are not yet available for students who were in their first year of college in the 2020-2021 academic year.

3 U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS).

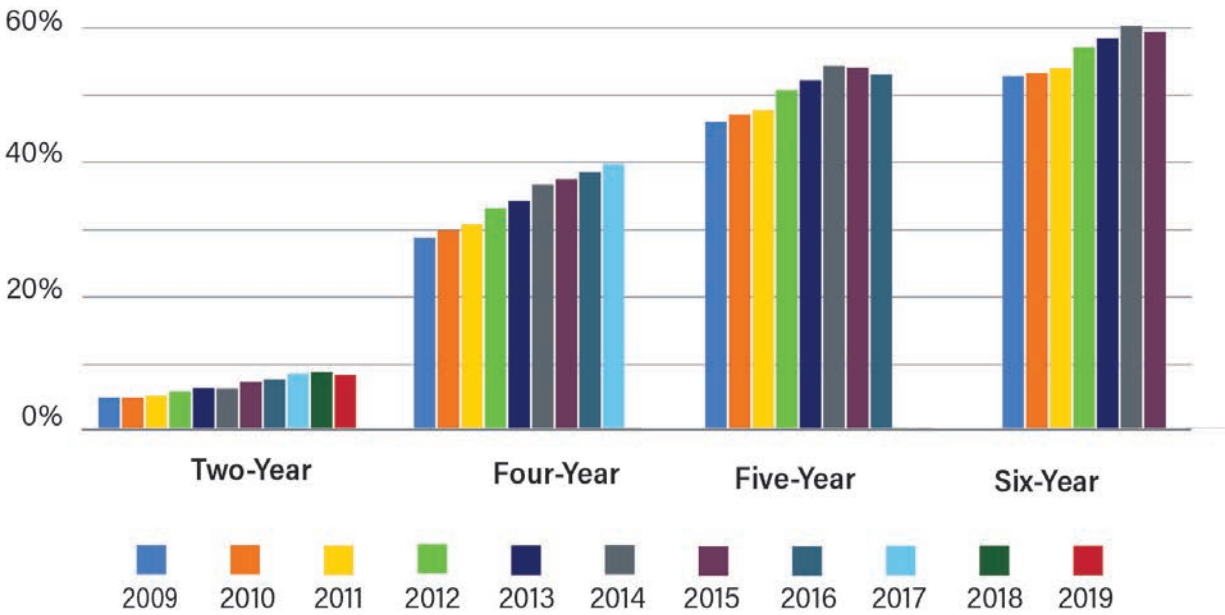
4 Data Table 14 in Appendix 1.

Credential Completion

Figure 7 provides a visual of the progress students make toward earning a credential over six years by high school graduating class. For every 100 students who enroll in college, eight completed in two years, 39 completed in four years and 59 completed in six years. Colorado's institutions of higher education continue to improve the four-year completion rates for high school students who enroll in college the fall after graduation. The other year interval completion rates decreased slightly but are still much higher than they were in 2009. Completion rates must grow more quickly for Colorado to reach its 2025 attainment goals.

For every 100 students who enroll in college, eight will complete in two years, 39 will complete in four years and 59 will graduate in six years.

FIGURE 7: Credential Completion Rates by High School Graduation Year



Credential Completion by Gender, Race/Ethnicity and Income

Females complete at higher rates than males on average. Hispanic or Latinx students have the highest two-year completion rates (although American Indian or Alaska Native 2017 grads were higher) but not as high four-year completion rates compared to the other race/ethnicity group; this suggests Hispanic or Latinx students are more likely to pursue a certificate or associate degree. Those students who had been eligible for FRL in high school also have a higher two-year completion rate and a much lower four-year completion rate than those who were not FRL eligible. This suggests that more low-income students are pursuing a certificate and associate degrees as well.

Data suggests that more low-income students are pursuing certificate and associate degrees.

Certificate, Associate or Bachelor's Degree Completion by Gender, Race/Ethnicity and Income for 2016 and 2017 College Enrollees

	2016 High School Graduates		2017 High School Graduates	
	% Earning a Credential in 2 Years	% Earning a Credential in 4 Years	% Earning a Credential in 2 Years	% Earning a Credential in 4 Years
Gender				
Female	7.80%	42.40%	8.60%	43.40%
Male	6.60%	32.90%	7.40%	34.30%
Race/Ethnicity				
American Indian or Alaska Native	7.14%	23.21%	31.18%	23.2%
Asian	4.11%	41.20%	44.30%	41.2%
Black (not Hispanic)	3.27%	19.82%	21.84%	19.8%
Hawaiian or Pacific Islander	8.70%	26.09%	29.55%	26.1%
Hispanic or Latinx	8.84%	30.00%	31.31%	30.0%
Two or More Races	4.87%	30.32%	34.75%	30.3%
White (not Hispanic)	7.21%	42.95%	43.99%	43.0%
Socio-economic Status				
No FRL	6.91%	41.08%	42.83%	41.1%
FRL	8.19%	28.21%	28.65%	28.2%

Conclusion and Policy Recommendations

This report highlights the various pathways taken by Colorado's high school students into higher education both during high school and after graduation. Colorado has built strong postsecondary pathways over many years through partnerships across K-12, postsecondary education and industry. These pathways have helped improve postsecondary completion rates by high school graduates and will continue to drive attainment in Colorado. The impact of the pandemic is reflected in many positive trends in college enrollment, persistence and completion rates either plateauing or reversing. Equity as defined as race and ethnicity as well as income status has become an even more pressing concern. COVID-19 could have negative impacts unless more is done to support student success and progress.

Colorado manages many efforts aimed at improving the success of our state's students. To name just a few:

- CDHE also operates the [Colorado Opportunity Scholarship Initiative](#), which pairs public and private funding to support students with scholarships as well as wraparound support services to promote college enrollment and success. The program operates in 61 Colorado counties and in all public institutions of higher education. COSI students persist at significantly high rates (up to 94%).
- In October 2020, CDHE launched the Colorado Application for State Financial Aid ([CASFA](#)). CASFA allows many students who do not qualify for federal aid to apply and be considered for state aid. This population includes students who do not have lawful immigration status but have state residency and are actively seeking legal status.
- To help increase FAFSA/CASFA completion rates, COSI launched the [Fund My Future Grant](#) which provides resources to school districts to support students in completing financial aid applications before high school graduation.
- CDHE operates the federally funded [GEAR UP](#) program which significantly increases the number of low-income students who are prepared to enter and succeed in postsecondary education.

- To encourage Colorado campuses to promote success beyond the classroom by addressing food and housing insecurities as well as mental health, CDHE along with many agency partners developed Hunger Free and Healthy Minds [campus checklists](#). Institutions who receive these designations have demonstrated that they have services and programs which are actively engaged in these social determinants of student success.
- To remove a barrier to higher education in the state, public and private higher education institutions along with CDHE held the 4th annual Colorado Free Application Days. The program expanded from one day to three days in 2020. In total, students saved more than \$2.5 million in application fees and, as a result, increased their likelihood of attending a college/university and doing it in Colorado.
- Perhaps most importantly, CDHE hired its first-ever chief educational equity officer in August 2021. Dr. Roberto Montoya quickly grew the position to an [Office of Education Equity](#). The office leads state efforts in higher education to address systemic inequalities which lead to equity gaps in enrollment and credential completion.

As part of HB21-1330, a “Student Success and Workforce Revitalization” task force was created to convene higher education stakeholders in the state. The task force created a [report](#) which provides an outline of bold and innovative initiatives that can be taken to make higher education more affordable and increase student success and workforce alignment. Possible future legislation focusing on regional economic collaborative grants, as well as an enhanced data system that will include new and more aligned student success measures as well as a data interface, will be inspired by some of the recommendations.

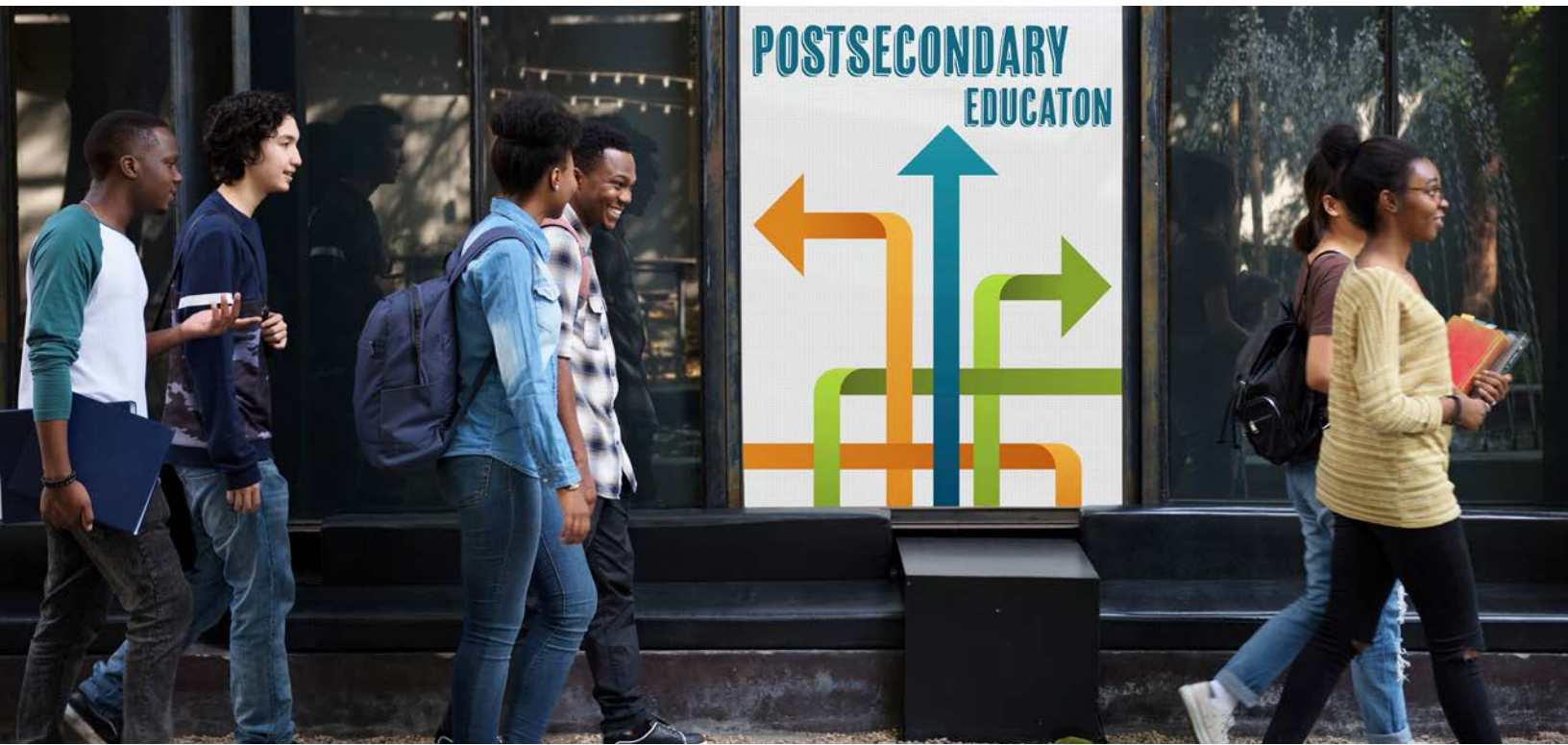


Bills passed in the 2021 legislature that can enhance college-going and credential completion in Colorado:

HIGHER EDUCATION STUDENT SUCCESS

House Bill 21-1330, [Higher Education Student Success](#), was signed into law in 2021. The bill authorized federal America Rescue Plan dollars aimed mainly at initiatives that reengage students who stopped out of higher education before earning a credential. Sections in the bill included:

- **Student Success and Workforce Revitalization Task Force:** Charged the Colorado Commission on Higher Education to convene a task force that studied and made [recommendations](#) on the role of institutions of higher education in the state in providing effective and efficient workforce development. The recommendations are being reviewed by legislators and will likely result in future legislation.
- **CORE Initiative:** The Colorado Re-Engaged (CORE) Initiative was developed to award an associate degree to eligible students who began at a four-year institution and accrued at least 70 credit hours but did not earn a degree. Similar to Colorado's [Reverse Transfer](#) program but is not aimed at students who started at a community college. This groundbreaking initiative has the potential of putting credentials in the hands of students who have completed over two years of quality academic work but have no degree to show for it.
- **Financial Aid Working Group:** Comprised of nearly 20 experts from across Colorado's secondary and higher education institutions, they released a [report](#) with recommendations that will help the state reach its ambitious goal that by 2026, 80% of all graduating high school seniors will complete student aid applications.
- **COSI Finish What You Started:** The Colorado Opportunity Scholarship Initiative received \$46.5 million to expand its Finish What You Started program. The funds are being allocated to state institutions of higher education to focus on providing indirect and direct support to undergraduate resident students who earned college credit hours but did not earn a credential. The money can be used as grants to encourage students to return to higher education to earn a credential along with wraparound support services tailored to returning adults.



COLLEGE ADMISSION USE OF NATIONAL TEST SCORE

Also in 2021, HB21-1067, [College Admission Use of National Test Scores](#) was made law. The year previous, HB20-1407 addressed canceled and rescheduled SAT and ACT exams in 2020 due to the pandemic. The legislation provided a one-year waiver to state four-year institutions in requiring test scores in college admission. During the one-year test score waiver period, many Colorado institutions of higher education saw increased applications from students of color and students who are low-income. Additionally, it became clearer through the examination of internal data that institutions could make informed admission decisions without the use of national test scores. To that end, HB21-1067 was introduced and signed into law allowing Colorado institutions to be “test-optional” – making it an option for applicants to submit test scores as part of the admission process. The bill also requires CDHE to report the impact of “test-optional” on admission, enrollment, and credential completion with a particular focus on students of color and students who are low income.

Possible future ways Colorado can support all its students and strengthen credential completion.

The findings in this report, combined with proven practices already underway in Colorado and other states, suggest that the following policy interventions be pursued:

1

CDHE should work with institutions of higher education, K-12 partners, My Colorado Journey and the workforce to encourage preparation, enrollment and credential attainment of low-income, students of color and students from rural areas.

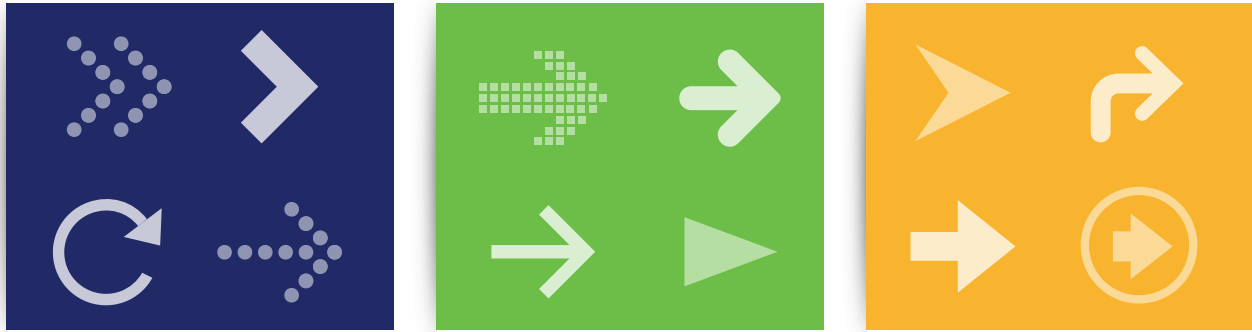
As previously discussed in this report, Colorado will not be able to reach its credential completion goals, workforce demands, or be able to erase the equity gap between races and ethnicities in earning a certificate or degree unless more effective and tailored work is done to encourage and support first-generation, low-income, students of color and students from rural areas to enroll in and succeed in higher education. Many successful programs exist across the state. Leveraging partnerships, these proven solutions should be promoted and scaled to reach a greater number of students. Examples of proven and effective programs in Colorado include [Colorado School Counselor Corps Grant Program](#), [GEAR UP](#) and [COSI](#).

2

Create new incremental credentials that recognize knowledge and skills developed along the degree pathway.

Students who leave college without completing a degree have little to show for the substantial progress they've often made toward their goals. To help address this, House Bill 21-1330 authorized four-year institutions to award associate degrees to students who left college with 70 or more credits and who fulfilled other requirements. Additional credentials awarded to students along the way to a degree can validate their accumulated knowledge and skills and give them a leg up in seeking part-time employment or internships. For example, a credential might be awarded when a student has demonstrated proficiency in college-level writing and math and completed foundational courses in the chosen major. Another credential might be awarded when the student has completed all general education requirements plus a work-based learning experience to apply classroom learning in the field. Research has shown that recognition of progress along the way can have a powerful effect on students by motivating them to complete their studies. Colorado has begun exploratory work through the *Credential As You Go* initiative, together with public higher education systems in New York and North Carolina.

1 Pursuant to C.R.S. 22-7-1009 and 22-7-1017, A PWR endorsed signifies a student has thoughtfully planned for post-high school life, and is academically prepared for credit-bearing 100-level postsecondary coursework without the need for remediation.



3

CDHE should work with college academic advisors to assist in training and designing student pathways, identify student pain points and solutions, and inform policy related to student success.

Academic advising is critical in ensuring students stay in college and earn a credential in a timely and informed manner. Additionally, utilizing the expertise of academic advisors can result in solutions to common student issues statewide—not just at one or a few institutions. CDHE has engaged advisors more actively and visibly as partners to advance student success and help achieve the state's goals for equitable postsecondary attainment. This has included bringing advisors together with faculty to discuss effective transfer pathways and holding quarterly open forums with advisors to share information and get input on departmental initiatives. Through a grant from the Education Commission of the States, CDHE created an online course—*Advisors LEAD*—to help develop culturally-responsive, purpose-focused advisors for an increasingly diverse student population. Advisors understand how policies and programs work “on the ground” with actual students and thus they should be involved more intentionally in their development and evaluation..

4

CDHE must continue to work with institutions of higher education, CCHE, K-12 partners, and statewide leadership to intentionally remove structural barriers, providing students with the specific supports they need to succeed.

The Office of Educational Equity at the Department of Higher Education, led by the chief educational equity officer works with institutions of higher education to establish and inform statewide policy and acts as a conduit and amplifier of promising practices. The office is committed to promoting the public value of higher education and encouraging the general public to direct funding in a way that mirrors the diversity in our state and erases racial/ethnic/income/geographic equity gaps in Colorado. The office will continue to use the Report on Education Equity and disaggregated data to drive improvements in success and completion for students of color in Colorado. Continual implementation of these recommendations, which focus on the social determinants of student success, equity-minded practices and auditing policies, can have a promising impact on erasing equity gaps in Colorado. These will continue to be a priority, along with support and resources to implement the action plan.

Data and Methodology

Data Source

CDHE receives data on high school graduates from CDE. This data is then connected to CDHE's State Unit Record Data System (SURDS) to get postsecondary information from Colorado institutions of higher education. The introduction of the State Assigned Student ID (SASID) in 2009 enabled data to be shared between the two departments; therefore, this kind of data is not available before the 2009 high school graduating class. In 2020, CTE data was added to this report. This data was provided by the Colorado Community College System and linked to the high school graduates based on SASID. Finally, CDHE submits a request to the National Student Clearinghouse (NSC) for out-of-state enrollment information, as well as information on private institutions in Colorado not included in SURDS. NSC data is included and is reflected in college enrollment data in Section I and II and persistence data in Section III. Though NSC provides data on out-of-state completions, those data are not included in any part of this report. As a result, all completions data in this report only include in-state completions at institutions reporting to SURDS.

Report Cohorts

This report uses two separate cohorts:

High School Graduate Cohort:

This cohort consists of all students who graduated from high school in Colorado in a given year and is used primarily in Section I and II. CDE, SURDS and NSC are the source of these data.

College Enrollee Cohort:

This cohort consists of students who graduated from high school in Colorado in a given year and are attending an in-state institution that reports data into the SURDS system. This includes all public Colorado colleges and universities, plus Colorado Christian University, Regis University and the University of Denver. This cohort is used in Section III. CDE and SURDS are the only source of this data with the exception of persistence, where NSC data is used to identify students who enrolled in a private institution or out-of-state institution following their first year.



Academic Years

The academic years referred to in the report coincide with the following fall entry into college of the high school graduates. For example, the 2020 high school graduates tracked in this report enrolled in college in fall 2020. This report, like all reports after 2012, focuses primarily on students who enroll in college in the fall immediately following high school graduation.¹

Limitations to Race/Ethnicity Data and Terminology

Additionally, this report uses standard race/ethnicity categories defined by the National Center for Education Statistics. These categories do not always reflect new terminology for race/ethnicity. New racial/ethnicity categories were adopted in 2012 to comply with state and federal reporting standards. As a result, data and comparisons for Asian students, Hawaiian or Pacific Islander students and students of two or more races are not available prior to 2012.

Accessing Data

To make these data more accessible to the public, CDHE created a searchable database and individualized district profiles. The project, known as District at a Glance, is housed on CDHE's website at:
<https://higher.ed.colorado.gov/pathways-to-prosperity-postsecondary-access-and-success-for-colorados-high-school-graduates>

Contact Information

For more information, please contact:
carl.einhaus@dhe.state.co.us

¹ The report published in 2012 for 2009 high school graduates used a different methodology by calculated college matriculation for all graduates who enrolled in college within 18 months of graduating.

Appendix I: Data Tables

High School Graduates Cohort

This cohort consists of all students who graduated from high school in Colorado in a given year and is used primarily in Sections I and II.

DATA TABLE 1. Percent of High School Graduates Enrolled in College

Sources: CDE, SURDS, NSC

High School Graduation Year	Total High School Graduates	Total College Enrollment	% High School Graduates Enrolling in College	Enrolling in College OR Receiving A Credential	% HS Graduates in College OR receiving a Credential
2020	60,726	30,659	50.49%	31,590	52.02%
2019	60,191	33,911	56.34%	34,664	57.59%
2018	59,995	33,974	56.63%	34,624	57.71%
2017	57,471	32,391	56.3%	32,982	57.39%
2016	56,238	31,384	55.8%	31,873	56.68%
2015	53,128	30,042	56.5%	30,481	57.37%
2014	53,772	30,085	55.9%	30,424	56.58%
2013	54,498	30,115	55.3%	30,348	55.69%
2012	52,012	29,625	57.0%	29,759	57.22%
2011	52,261	29,979	57.4%	30,050	57.51%
2010	51,702	29,937	57.9%	29,966	57.96%
2009	50,184	29,529	58.9%	29,548	58.88%

DATA TABLE 2. Percent of High School Graduates That Enrolled in or Completed CTE

Sources: CCCS, SURDS

High School Graduation Year	Total High School Graduates	Enrolled in CTE	% CTE	Completed a CTE Program	% CTE Completer
2020	60,726	43,787	72.11%	30,890	50.87%
2019	60,191	43,575	72.39%	32,381	53.80%
2018	59,995	43,274	72.13%	32,044	53.41%
2017	57,471	41,364	71.97%	30,209	52.56%
2016	56,238	40,107	71.32%	28,736	51.10%

DATA TABLE 3. Percent of High School Graduates Enrolled in Dual Enrollment or Completing a Postsecondary (PS) Credential Before Graduation*Sources: CDE, SURDS*

High School Graduation Year	Total High School Graduates	Dual Enrollment	% Dual	Graduate with a PS Credential	% Graduate with a PS Credential
2020	60,726	25,736	42.38%	2,294	3.78%
2019	60,191	23,799	39.54%	2,220	3.69%
2018	59,995	22,907	38.18%	2,054	3.42%
2017	57,471	20,545	35.75%	1,639	2.85%
2016	56,238	18,701	33.25%	1,458	2.59%
2015	53,128	16,525	31.10%	1,209	2.28%
2014	53,772	13,827	25.71%	917	1.71%
2013	54,498	12,406	22.76%	666	1.22%
2012	52,012	11,023	21.19%	461	0.89%
2011	52,246	9,519	18.22%	311	0.60%
2010	51,702	7,841	15.17%	257	0.50%
2009	50,184	7,164	14.28%	169	0.34%

DATA TABLE 4. Percent of High School Graduates Enrolled in Concurrent Enrollment and Average Credit Hours Attempted and Completed*Sources: CDE, SURDS, NSC*

High School Graduation Year	Total High School Graduates	Enrolled in Concurrent Enrollment	% Concurrent	Avg Credits Attempted	Avg Credits Completed
2020	60,726	21,882	36.03%	4.8	4.47
2019	60,191	19,733	32.78%	4.32	4.06
2018	59,995	18,223	30.37%	4.10	3.88
2017	57,471	16,478	28.67%	3.59	3.37
2016	56,238	14,929	26.55%	3.26	3.05
2015	53,128	13,656	25.70%	3.08	2.85
2014	53,772	11,833	22.01%	2.45	2.22
2013	54,498	10,162	18.65%	1.94	1.73
2012	52,012	7,633	14.68%	1.37	1.12
2011	52,246	4,206	8.05%	0.65	0.47

DATA TABLE 5. Percent of High School Graduates that Participated in CTE, Dual Enrollment or Completed a Postsecondary Credential Before Graduation*Sources: CDE, SURDS, CCCS*

	2014	2015	2016	2017	2018	2019	2020	Percent Change
CTE Enrollee								
Gender								
Female	N/A	N/A	68.94%	69.48%	69.64%	69.65%	69.14%	0.29%
Male	N/A	N/A	73.73%	74.47%	74.63%	75.16%	75.05%	1.79%
Socio-economic Status								
Non-FRL	N/A	N/A	72.33%	73.74%	73.58%	73.97%	73.72%	1.93%
FRL	N/A	N/A	68.90%	67.88%	68.43%	68.75%	68.20%	-1.01%
Dual Enrollment								
Gender								
Female	28.13%	33.92%	36.37%	39.13%	41.77%	43.15%	46.46%	65.14%
Male	23.27%	28.23%	30.09%	32.36%	34.58%	35.89%	38.32%	64.69%
Socio-economic Status								
Non-FRL	26.37%	32.06%	34.87%	37.73%	40.44%	41.53%	44.62%	69.19%
FRL	23.55%	28.57%	29.39%	31.17%	32.43%	34.94%	36.97%	56.96%
Postsecondary Credential Prior to Graduation								
Gender								
Female	1.99%	2.72%	3.19%	3.47%	3.89%	4.18%	4.21%	111.53%
Male	1.42%	1.82%	1.98%	2.23%	2.96%	3.20%	3.35%	136.18%
Socio-economic Status								
Non-FRL	1.82%	2.27%	2.74%	3.03%	3.68%	3.94%	4.11%	126.47%
FRL	1.34%	2.30%	2.25%	2.45%	2.76%	3.11%	2.97%	120.97%

DATA TABLE 6. In-state and Out-of-State Enrollment Over Time for Students Enrolling in College

Sources: CDE, SURDS, NSC

High School Graduation Year	% High School Graduates Enrolling in-State	% High School Graduates Enrolling OUT-OF-State
2020	75.12%	24.88%
2019	74.73%	25.27%
2018	75.26%	24.74%
2017	75.95%	24.05%
2016	76.78%	23.22%
2015	76.25%	23.75%
2014	75.98%	24.02%
2013	77.57%	22.43%
2012	78.07%	21.93%
2011	78.72%	21.28%
2010	79.26%	20.74%
2009	80.54%	19.46%

DATA TABLE 7. Enrollment by Institution Type for Students Enrolling in College

Sources: CDE, SURDS, NSC

High School Graduation Year	% High School Graduates Enrolling in Two-Year Institutions	% High School Graduates Enrolling in Four-Year Institutions
2020	27.46%	72.54%
2019	26.78%	73.22%
2018	27.37%	72.63%
2017	26.83%	73.17%
2016	26.79%	73.21%
2015	25.05%	74.95%
2014	25.67%	74.33%
2013	28.14%	71.86%
2012	28.09%	71.91%
2011	28.70%	71.30%
2010	29.01%	70.99%
2009	28.10%	71.90%

DATA TABLE 8. Class of 2020 College Enrollment Characteristics by Gender, Race/Ethnicity and Income*Source: CDE, SURDS, NSC*

	High School Graduates	% Students Enrolled in College	% College Students Enrolled in-State	% College Students Enrolled Four-Year
Gender				
Female	30,268	56.53%	74.25%	73.29%
Male	30,458	44.48%	76.22%	71.59%
Race/Ethnicity				
American Indian or Alaska Native	384	34.64%	81.95%	63.16%
Asian	2277	71.85%	78.42%	82.15%
Black or African American	2789	47.83%	79.46%	67.32%
Hawaiian or Pacific Islander	139	42.45%	81.36%	61.02%
Hispanic or Latinx	19454	39.44%	87.20%	61.43%
Two or More Races	2286	52.32%	71.07%	73.58%
White	33397	55.78%	69.74%	76.68%
Socio-economic Status				
No FRL	42951	56.42%	71.77%	75.87%
FRL	17775	36.16%	87.74%	60.00%

DATA TABLE 9. College Enrollment by Gender and Income Over Time*Sources: CDE, SURDS, NSC*

High School Graduation Year	FEMALE	MALE	No FRL	FRL
2020	56.5%	44.5%	56.4%	36.2%
2019	62.3%	50.4%	62.4%	42.3%
2018	61.8%	51.4%	62.1%	42.7%
2017	61.9%	50.8%	62.0%	43.4%
2016	60.3%	51.2%	61.6%	42.0%
2015	61.2%	51.8%	62.2%	41.5%
2014	60.4%	51.4%	60.9%	39.8%
2013	59.9%	50.7%	60.7%	40.5%
2012	61.1%	52.8%	62.7%	41.4%
2011	61.0%	53.7%	62.5%	41.5%
2010	61.9%	53.8%	60.3%	45.9%
2009	62.0%	55.7%	66.0%	42.7%

College Enrollee Cohort

This cohort consists of students who graduated from high school in Colorado in a given year and are attending an in-state institution that reports data into the SURDS system. This includes all public Colorado colleges and universities, plus Colorado Christian University, Regis University and the University of Denver. This cohort is used in Section III.

DATA TABLE 10. College Enrollee Program Enrollment¹ Over Time

Sources: CDE, SURDS

High School Graduation Year	Certificate	Associate	Bachelor's or Above
2020	3.46%	29.55%	65.17%
2019	3.07%	28.93%	66.52%
2018	2.96%	28.99%	66.51%
2017	3.31%	26.74%	68.52%
2016	2.50%	28.96%	67.17%
2015	1.54%	28.71%	68.29%
2014	1.11%	27.58%	69.69%
2013	1.39%	28.53%	68.17%
2012	1.16%	30.03%	66.92%
2011	2.36%	28.25%	66.45%
2010	2.70%	28.53%	64.91%
2009	2.84%	26.55%	65.68%

DATA TABLE 11. First-Year Leading Indicators of Success Over Time

Sources: CDE, SURDS

High School Graduation Year	2019 HS Graduates Enrolled In-State	Average GPA	Average Credits	% with 15 Credits or More	% with 24 Credits or More	% with 30 Credits or More
2020	20,707	2.90	32.13	79.03%	64.68%	48.66%
2019	22,258	2.91	32.50	81.79%	67.12%	50.08%
2018	22,550	2.83	32.18	81.66%	66.72%	49.32%
2017	21,859	2.81	31.63	80.59%	66.26%	48.55%
2016	21,905	2.78	30.58	79.16%	63.45%	45.93%
2015	20,333	2.79	29.53	79.61%	63.71%	44.28%
2014	19,377	2.78	30.03	82.07%	66.03%	45.15%
2013	20,865	2.76	29.12	80.07%	63.38%	42.88%
2012	20,903	2.72	28.80	79.06%	63.57%	42.31%
2011	22,458	2.67	28.28	77.42%	61.34%	39.59%
2010	22,972	2.66	27.86	77.28%	59.62%	37.48%
2009	23,182	2.66	28.11	77.00%	60.62%	40.11%

1 For alignment, a slightly different cohort was used for this data than was used for similar data in the 2018 report; as a result the numbers are not the same, but the trends remain similar.

DATA TABLE 12. First-Year Leading Indicators of Success by Gender, Race/Ethnicity and Income for 2020 College Enrollees*Sources: CDE, SURDS*

	Average GPA	Average Credits	% with 15 Credits or More	% with 24 Credits or More	% with 30 Credits or More
Gender					
Female	2.98	32.99	80.48%	66.37%	50.90%
Male	2.80	31.07	77.25%	62.61%	45.94%
Race/Ethnicity					
American Indian or Alaska Native	2.61	23.29	63.04%	43.48%	28.26%
Asian	3.11	36.93	87.07%	74.56%	58.66%
Black or African American	2.45	25.13	65.33%	46.33%	29.16%
Hawaiian or Pacific Islander	2.70	25.81	72.09%	53.49%	27.91%
Hispanic or Latinx	2.66	28.41	70.18%	53.55%	38.82%
Two or More Races	2.87	32.38	79.79%	63.52%	47.77%
White	3.02	33.92	83.55%	70.63%	54.10%
Socio-economic Status					
No FRL	2.98	33.59	82.43%	68.95%	52.83%
FRL	2.59	26.97	67.61%	50.35%	34.70%

DATA TABLE 13. First-Year Persistence¹ and Completion Over Time*Sources: CDE, SURDS, NSC*

High School Graduation Year	Persistence			Persistence and Completion		
	Overall	Two-Year Institutions	Four-Year Institutions	Overall	Two-Year Institutions	Four-Year Institutions
2019	76.66%	57.72%	84.62%	78.02%	61.44%	84.99%
2018	79.70%	63.66%	86.51%	81.15%	67.69%	86.87%
2017	80.31%	63.43%	86.85%	81.77%	67.86%	87.16%
2016	79.51%	63.06%	86.21%	80.61%	66.17%	86.49%
2015	80.10%	62.35%	87.09%	81.11%	65.51%	87.26%
2014	81.85%	64.64%	88.12%	82.70%	67.37%	88.28%
2013	79.96%	62.07%	87.01%	80.95%	65.22%	87.15%
2012	80.36%	64.16%	87.46%	81.13%	66.30%	87.64%
2011	78.73%	60.83%	86.93%	79.43%	62.90%	87.00%
2010	79.38%	62.31%	87.81%	80.03%	64.09%	87.90%
2009	80.31%	63.14%	88.49%	80.97%	64.86%	88.64%

1 For alignment, a slightly different cohort was used for this data than was used for similar data in the 2018 report; as a result the numbers are not the same, but the trends remain similar. This change allowed us to incorporate completion.

DATA TABLE 14. First-Year Persistence¹ and Completion by Gender, Race/Ethnicity and Income for 2020 College Enrollees

Sources: CDE, SURDS, NSC

	Persistence			Persistence and Completion		
	Overall	Two-Year Institutions	Four-Year Institutions	Overall	Two-Year Institutions	Four-Year Institutions
Gender						
Female	79.01%	61.35%	86.35%	80.12%	64.68%	86.53%
Male	73.83%	53.45%	82.54%	75.49%	57.62%	83.13%
Race/Ethnicity						
American Indian or Alaska Native	73.68%	48.94%	87.21%	75.19%	53.19%	87.21%
Asian	87.95%	68.78%	92.45%	88.21%	70.14%	92.45%
Black or African American	70.89%	50.85%	80.56%	71.66%	53.22%	80.56%
Hawaiian or Pacific Islander	80.00%	82.35%	78.57%	80.00%	82.35%	78.57%
Hispanic or Latinx	68.05%	54.16%	77.01%	69.81%	57.88%	77.50%
Two or More Races	78.42%	56.32%	85.19%	79.16%	57.89%	85.67%
White	80.17%	60.31%	87.13%	81.52%	64.44%	87.51%
Socio-economic Status						
No FRL	80.40%	60.71%	87.31%	81.53%	64.07%	87.66%
FRL	65.78%	52.10%	74.95%	67.80%	56.48%	75.39%

DATA TABLE 15. Credential (Certificate, Associate or Bachelor's) Completion Over Time

Sources: CDE, SURDS

High School Graduation Year	% Earning a credential in 2 Years	% Earning a credential in 4 Years	% Earning a credential in 5 Years	% Earning a credential in 6 Years
2019	7.9%	NA	NA	NA
2018	8.3%	NA	NA	NA
2017	8.1%	39.2%	0.0%	0.0%
2016	7.2%	38.0%	52.5%	0.0%
2015	6.8%	36.9%	53.5%	58.9%
2014	5.8%	36.1%	53.8%	59.8%
2013	5.9%	33.7%	51.6%	57.9%
2012	5.4%	32.6%	50.2%	56.6%
2011	4.8%	30.2%	47.2%	53.5%
2010	4.5%	29.4%	46.5%	52.7%
2009	4.5%	28.3%	45.4%	52.3%

1 For alignment, a slightly different cohort was used for this data than was used for similar data in the 2018 report; as a result the numbers are not the same, but the trends remain similar. This change allowed us to incorporate completion.

Appendix II: Data File Specifications

An Excel file with data for each of the cohorts in this report is available. It includes the following information at the high school, district and state levels and can be accessed on CDHE's website at <https://highered.colorado.gov/pathways-to-prosperity-postsecondary-access-and-success-for-colorados-high-school-graduates>.

High School Graduate Cohort

This cohort consists of all students who graduated from high school in Colorado in a given year and is used primarily in Section I. CDE, SURDS and NSC are the sources of this data.

High School Graduate Cohort Size Range¹
 % in Dual Enrollment
 % in Concurrent Enrollment
 % Received a Credential in High School
 % in CTE Enrollment
 % in CTE Completers
 % Enrolled in College
 % Enrolled in College or Received a Credential
 % Enrolled In-State
 % Enrolled Out-of-State
 % Enrolled 2-Year 1YearFall
 % Enrolled 4-Year 1YearFall
 % Enrolled 2-Year 2YearSpringFall
 % Enrolled 4-Year 2YearSpringFall
 % Enrolled 2-Year 3YearSpringFall
 % Enrolled 4-Year 3YearSpringFall
 % Prepared for College
 % Prepared who Enrolled in College
 % Prepared who Do Not Enrolled in College

¹ Ranges based on Colorado High School Athletic Association enrollment cutoffs for team sports (except football) <https://chsaanow.com/sports/2021/7/30/2022-24-classifications-enrollment-number-cutoffs.aspx>

College Enrollee Cohort

This cohort consists of students who graduated from high school in Colorado in a given year and are attending an in-state institution that reports data into the SURDS system. This includes all public Colorado colleges and universities, plus Colorado Christian University, Regis University and the University of Denver. This cohort is used in Sections II and III. CDE and SURDS are the only sources of this data with the exception of persistence, where NSC data is used to identify a student who enrolled in a private institution or out-of-state institution following their first year.

Cohort Size Range of Students Enrolled in a College Reporting to SURDS¹

% Receiving Pell Grant

% Receiving State Aid

% Receiving Institutional Aid

% Enrolled in a Certificate, Associate Degree or Bachelor's Degree Program, Avg, GPA

% Completed more than 12 Credits

% Completed more than 15 Credits

% Completed more than 24 Credits

% Completed more than 30 Credits

% Enrolled in a Major in Year 1

% Persisted 2nd Year, 3rd Year, 4th Year

% Persisted or Received a credential 2nd Year, 3rd Year, 4th Year

% Completed a Credential (Certificate Associate Degree or Bachelor's Degree) in their 2nd Year, 4th Year, 5th Year, 6th Year

¹ Ranges based on Colorado High School Athletic Association enrollment cutoffs for team sports (except football)
<https://chsaanow.com/sports/2021/7/30/2022-24-classifications-enrollment-number-cutoffs.aspx>

Acknowledgments

Completion of this report would not have been possible without support from the Colorado General Assembly, the Colorado Department of Education and the hard work of several employees at the Colorado Department of Higher Education.

Carl Einhaus, Senior Director of Student Success and P-20 Alignment and Colorado GEAR UP Project Director

Beth Hunter, Graphic Designer

Megan McDermott, Director of Communications

Richard Mizerak, Data and Research Analyst

Jay Shah, Data Systems Engineer/Web Developer

Maggie Yang, Senior Director of Data Systems and Applications



For More Information

Colorado Department of Higher Education
<https://highered.colorado.gov/>

Colorado Rises: Advancing Education and Talent Development
<http://masterplan.highered.colorado.gov/>