



PATHWAYS TO PROSPERITY:
**Postsecondary Access and Success
For Colorado's High School Graduates**



2021 Report

Data Through the High School Graduating Class of 2019

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



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.

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<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
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

For over a year, COVID-19 has disrupted all our lives, including our education system and the future for many Coloradans. Recovery from the pandemic is in sight, but Colorado's industries more than ever will depend upon postsecondary education to help produce the workforce needed in a changed environment and altered economy. Families and individuals are seeking to rebuild their lives with more stable and financially rewarding careers. To that end, it is vital to promote and grow postsecondary attainment and college-going pathways.

The pandemic certainly exposed many of the injustices that permeate society. The news often includes stories on how low-income and people of color have been disproportionately impacted by the pandemic and its many ripples. Both the death of George Floyd as well as the many protests that followed throughout the world elevated racial injustices to the forefront of our nation's consciousness. And, perhaps most importantly, further demonstrated how much work still needs to be done toward achieving equity. Undoubtedly, education is a leading driver on the road to equity.

With a sharpened focus on equity as well as preparing for a more dynamic post-pandemic higher education ecosystem, implementing the recommendations outlined in this report are essential. There is good news: Colorado's focus on improving postsecondary completion is paying off. In each of the last six years, high school graduates who enrolled in college were more likely to complete their credential than the class before them. Additionally, due to innovations in policy, the percentage of students requiring developmental education has dropped, particularly among those in two-year colleges. This is progress to celebrate.



Nevertheless, we need to accelerate this trend and do more to support college access. Despite positive trends in college-going rates for American Indian or Alaska Native, Asian, Hawaiian or Pacific Islander and Hispanic or Latinx students, overall rates have stayed relatively consistent at about 56% over the last six years. Particularly worrisome is the growing evidence that equity gaps in higher education may be exacerbated as the pandemic disproportionately affects our students of color, low-income students, and students from rural communities. Notably, this report includes students who were freshmen in college when the pandemic hit. As such, special attention will be given in future reports as to how student success rates were impacted by COVID-19.

Colorado's investment in dual and Concurrent Enrollment, career and technical education (CTE) and credential completion in high school means that today more high school students are graduating with the experiences needed to be successful in college and the workforce. We want these same students to seek a postsecondary education so they experience the stability and economic security of a credential.

The higher education system is innovative. Over the past year, campuses have come together to bring quality education to students wherever they are. They have found ways to support students' needs, by providing food and shelter, mental health, technological and academic supports. Certainly, we look forward to the time when in-person instruction returns everywhere. However, quality remote education and services will likely remain at much higher rates than before the pandemic as many students benefited from these offerings. Without a doubt, the pandemic will make far lasting changes in education. Most promising is how the entire higher education system in Colorado has come together to ensure we are ready to meet our workforce needs and create a better future for our state.

The recommendations in this report focus on the success of our students. Specifically, on continuing and growing programs that have proven to have a positive impact on student success as well as eliminating equity gaps, even as they threaten to get worse. Colorado must be bold to respond to students' needs and to provide our economy with the resilient workforce that it requires to grow and thrive.



Dr. Angie Paccione
Executive Director
Colorado Department of Higher Education



KEY FINDINGS:

High School Pathways to a Postsecondary Credential (2019 High School Graduates)

- 72% enrolled in CTE courses in high school (*same as 2018*).
- 40% enrolled in college courses while in high school (*38% for 2018*).
- 3.7% graduated with a college certificate or degree (*3.4% for 2018*).

Postsecondary Enrollment Pathways (2019 High School Graduates)

- 56% of high school graduates enrolled in postsecondary education the fall after graduation - race/ethnicity enrollment gaps persist (*slight decrease*).
- 51% of students from rural areas enrolled the fall immediately after high school graduation.
- 25% enrolled out-of-state (*continues to increase*).
- 73% attended a 4-year institution.

*An additional 10% of students enroll within two years after graduation,
most of those students enroll in 2-year institutions.*

Pathways to Postsecondary Success

- For every 100 students who enroll in college, nine will complete in two years, 38 will complete in four years and 58 will graduate in six years.
- Postsecondary completion rates have risen for every high school class since 2009.
- Reform is working: students who need developmental education courses, particularly at two-year colleges, continues to decrease.
- First-year GPA and course credits completed continues to rise.

Policy Recommendations

- CDHE should work with institutions of higher education, K-12 partners, and My Colorado Journey 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 an Academic Core Completion Certificate that can be awarded through Concurrent Enrollment and by both two- and four-year institutions.
- CDHE should work with college academic advisors to assist in training on curriculum and Statewide Articulation Agreements, identify student pain points and connecting more with faculty.
- Implement recommendations included in CDHE's [Report on Educational Equity](#).

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Introduction

For a vibrant economic future, Colorado must 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 2020 Colorado Talent Pipeline Report](#) identified that 62.6% of Colorado's top jobs¹ require a credential beyond high school. However, only 59.8% 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 that in 2018, 64.9% of White Coloradoans earned a college degree or certificate, while the attainment rates for American Indian or Alaska Native (27.87%) Black or African American (43.94%), and Hispanic and/or Latino (32.16%) 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 credential, 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 invest in affordability, cost containment and innovation. Recognizing that affordability is a significant

barrier to college access and success, CDHE in partnership with Governor Jared Polis, released [Roadmap to Containing College Costs and Making College Affordable](#).

The affordability roadmap outlines 18 actions that CDHE will take in collaboration with CCHE and institutions of higher education to help make college affordable. Examples of initiatives in-progress to increase affordability in higher education include:

- **Colorado Free Application Day**
56,896 applicants saved more than \$2.3 million in application fees during the October 13, 2020 initiative;
- **Open Educational Resources**
The statewide grant program and initiatives encourages colleges and universities to offer free or greatly reduced textbooks and educational materials. Preliminary data suggests that Colorado students will save \$3.4 million in textbook savings; and
- **Accountability Dashboard**
CDHE in collaboration with multiple agencies, is creating an online dashboard that will provide a user-friendly interface for students and families to clearly find higher education costs to assist them in making more informed financial decisions.

1 Top jobs are jobs with greater than 40 annual openings, an above-average growth rate, and a good wage.

2 Colorado Department of Higher Education. (2020) State Grows in Overall Attainment [Press Release], <https://cdhe.colorado.gov/news-article/the-department-announced-the-statewide-attainment-rate-increased-from-569-percent-in>

3 2019 Talent Pipeline Report. <https://drive.google.com/file/d/1PdJlxfo-ej0oCwiSzG06voCIHmq385SM/view>



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. According to Education Commission of the States, Colorado is one of only a few states that could approach its educational-attainment goals through increased outreach and engagement of traditional-age students, such as high school graduates. If 100% of high school graduates continued their education and earned a postsecondary degree, certificate or other credential, Colorado could meet the Lumina Foundation's goal of 60% postsecondary credential attainment by 2025.¹ It is an inspirational goal but one worth pursuing.

Growing our own talent is imperative, as projections show the number of people moving to Colorado will plateau over the next 10 years. Colorado has been successful at importing highly educated talent to meet workforce demands in the recent years which has contributed to Colorado's resident attainment rate being ten percentage points above the national average. Unfortunately, Colorado has not been as successful at educating its own recent high school graduates; college-going rates are more than ten percentage points below the 2018 national average of 69% (for 2018 high school graduates, the Colorado average was 56.6%).² 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—specific focus is required on low income, Black, Hispanic, and Native American students and students from rural areas.

1 Education Commission of the States (2016), [Free Community College: An approach to increase adult student success in postsecondary education](#).

2 U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), October Supplement, 2000 through 2018. See *Digest of Education Statistics 2019*, table 302.10. https://nces.ed.gov/programs/coe/indicator_cpa.asp

In 2019, over more than 60,000 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 2019 is 56.3%, a rate that has remained relatively stable for the past 10 years. An additional 1.3% of students graduated high school with a postsecondary-recognized credential, for a total postsecondary success rate of 57.6%.¹

56.3%

of 2019 high school graduates enrolled in postsecondary education.
57.6% either went to college or graduated high school with a postsecondary credential.

In 2019, a total of 25,527 students graduated from high school without achieving a postsecondary-recognized credential or enrolling directly into postsecondary education. Though some may have joined the military or entered a skilled apprenticeship program, many did not pursue a postsecondary pathway. The college-going rate could increase substantially if 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.

2021 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:

High school pathways to a postsecondary credential

SECTION II:

Postsecondary enrollment pathways

SECTION III:

Pathways to postsecondary success



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.

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¹ Data Table 1 in Appendix 1.

SECTION I:

High School Pathways to a Postsecondary Credential

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 robust pathways. This section outlines critical pathways blending high school and postsecondary education to ensure more Coloradans can complete a credential.

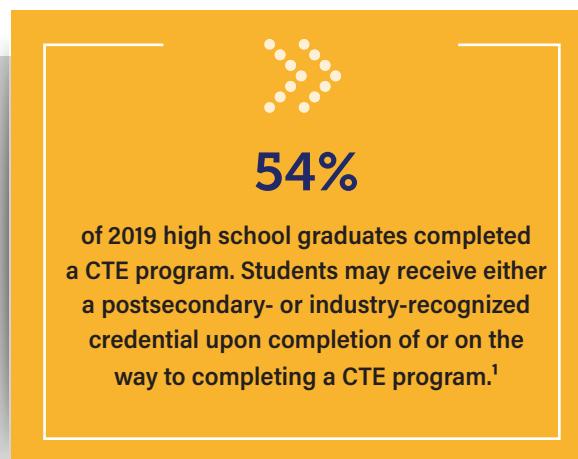
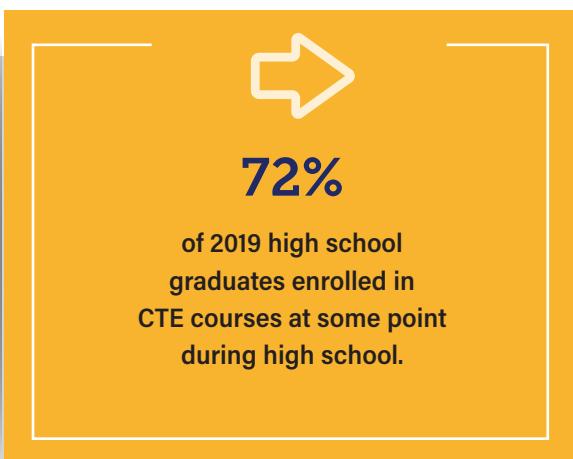
In 2017, the Colorado Department of Education (CDE) set a goal aligned with CDHE's goal to ensure that 66% of 2021 high school graduates achieve a postsecondary credential.¹ The state has invested in several programs to support increased credential completion. These programs include but are not limited to Career and Technical Education (CTE), dual and Concurrent Enrollment and the Career Success Development Program.

¹ Industry-recognized credentials are credentials recognized by industry; postsecondary-credentials are credentials awarded by the postsecondary institutions and reported in the SURDS data system. A list defined by the Colorado Workforce Development Council is used to prioritize industry-recognized credentials with high demand and high economic value for the Career Success Program.



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. More than three-quarters of graduates who received a postsecondary-recognized credential in high school also participated in CTE.



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.



40%

of 2019 high school graduates participated in dual enrollment.



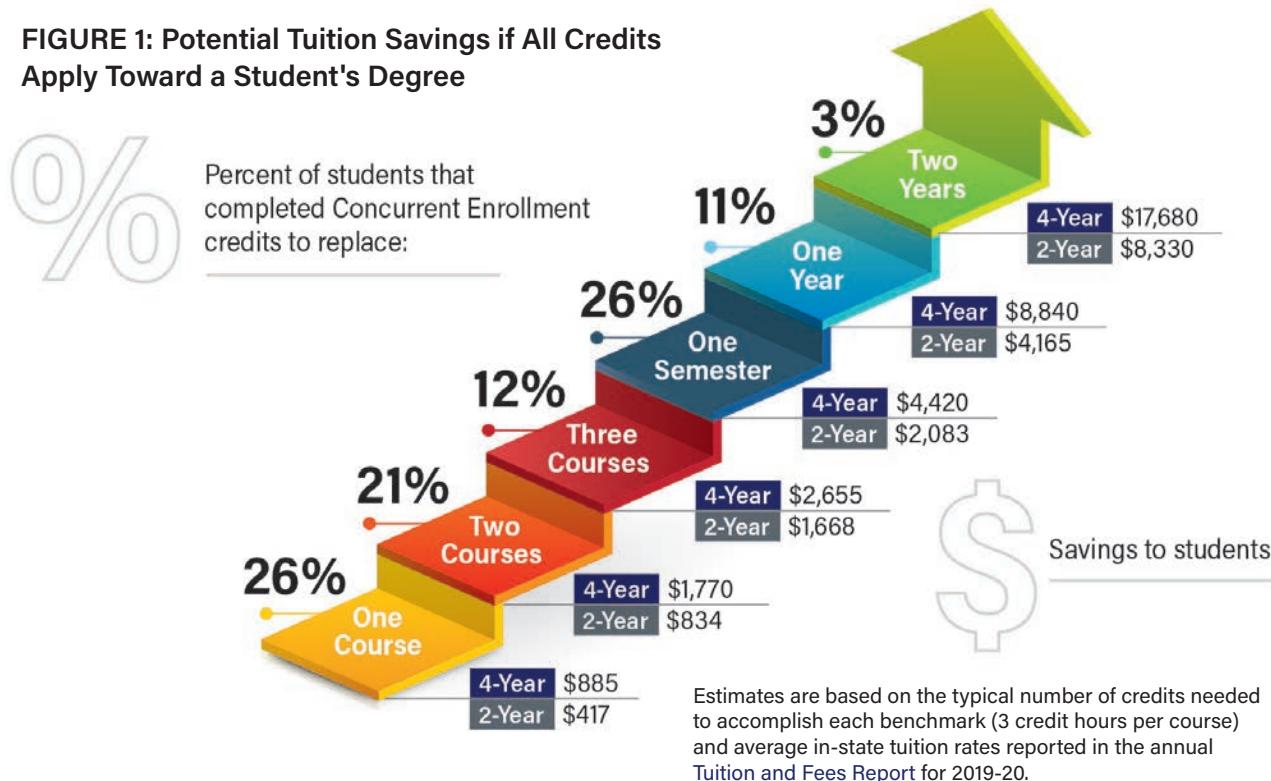
Over the last 10 years, the number of high school graduates who enrolled in dual enrollment has grown more than

175%

Concurrent Enrollment

Eighty-three percent of dual enrollment students completed credits as part of the state's Concurrent Enrollment program. Concurrent Enrollment allows students to earn college credit for courses taken while in high school, and, in many cases, it will enable students to earn or make progress toward a degree or credential. Figure 1 illustrates the cost savings that students could realize through concurrent enrollment if all credits earned apply toward their degree. In total, 2019 graduates had the potential to save an estimated \$50 million dollars on tuition through Concurrent Enrollment.¹

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



Research Continues to Grow on the Positive Impact of Concurrent Enrollment

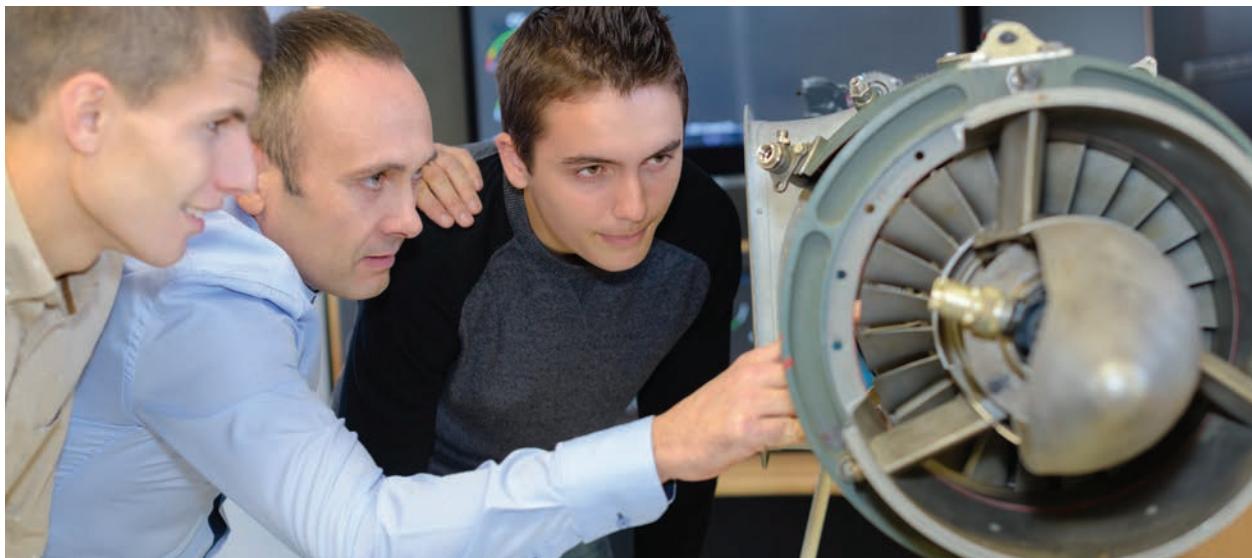
CDHE has partnered with the University of Colorado Boulder, APA Consulting, NCHEMS and the Colorado Evaluation and Action Lab to conduct research on the impact of Concurrent Enrollment on student outcomes. This research, which controlled for several factors (such as student preparation, income, race/ethnicity, gender, and English Language Learner status), suggests students that participated in Concurrent Enrollment had a college-going rate 25 percentage points higher compared to their peers who did not. The percentage of students who enrolled in college the following year, were 5 percentage points higher for Concurrent Enrollment students.

In addition, Concurrent Enrollment students had higher workforce earnings after five years (\$15,767.45 vs. \$14,377.98) than those who did not take college courses in high school. Concurrent Enrollment improved the odds of college entrance, success, and earnings by similar amounts regardless of student income, ethnicity, gender, or 9th-grade reading test scores.

Learn more about Concurrent Enrollment Outcomes here:

https://highered.colorado.gov/Publications/Reports/Enrollment/FY2019/2019_Concurrent_Enrollment_Sep_2020.pdf

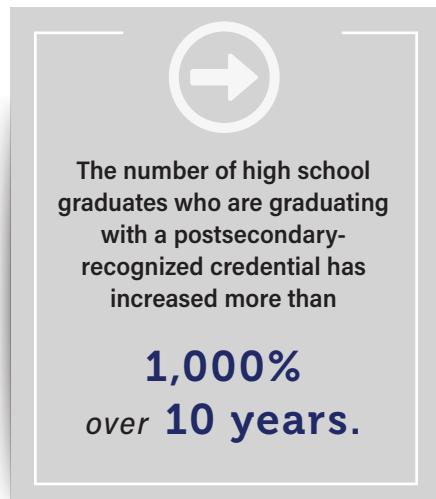
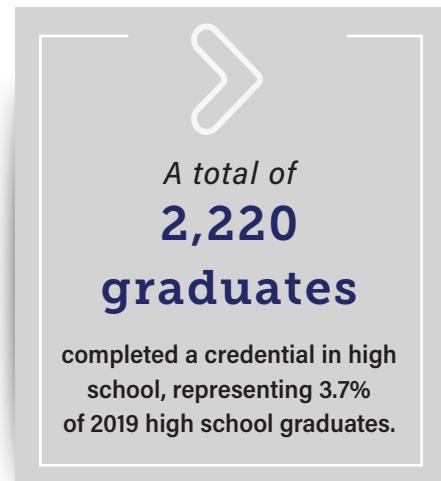
¹ Estimated based on the average in-state tuition at the level of institution that a student attended (average tuition: https://highered.colorado.gov/Publications/Reports/Budget/FY2021/2021_tuitionfeesreport.pdf).



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. These pathways were chosen because there were data available. Graduation guidelines that go into effect in 2021 (with implementation flexibility given due to COVID-19) require all high school students to demonstrate college and career readiness in English and math through a menu of items. This menu includes standardized assessments, Advanced Placement (AP) and International Baccalaureate (IB) participation, dual enrollment, industry-recognized credentials, a capstone option and others. Additionally, higher education institutions have worked with the state to revise admissions standards so that institutions have the flexibility to recognize academic measures that benefit applicants in admissions.



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 take college-level coursework in high school and earn college credit by passing an end-of-year exam. Due to the pandemic, all AP exams in 2020 were delivered digitally. In the 2020 school year, students took 87,356 total AP exams, 57,504 (65.8%) received a passing score. In 2019, Colorado high school students took a total of 92,208 AP exams, 56,571 (61.3%), received a score high enough to earn college credit at most colleges. 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, 32 public high schools in Colorado offer International Baccalaureate programs. Data for the 2019-2020 school year was not available in time for this report. Due to the impact of the pandemic, the written components of the IB were not administered in 2019-2020. To accommodate this, IB developed a reliable and valid score based upon the required assessed work done the two years of the courses.

Scores Typically Required
for College Credit

AP
3

Some courses require 4.

IB
4 out of 7

In 2020 alone more than

57,000

AP exams
were passed.

Colorado is also a leader in integrating work-based learning into high school.

In addition to the credentials students are achieving in high school, Colorado students are increasingly participating in rigorous work experiences to prepare themselves for their futures. From job shadowing to internships to youth apprenticeships, students are experiencing the demands of the workforce in greater numbers than ever.

As Colorado continues to strive to graduate students who are truly postsecondary and workforce ready, work-based learning experiences are essential in providing opportunities for students to explore interests, to gain valuable work experience, and to developing a talent base for Colorado employers.



Representation in High School Pathways 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 looks at trends by race/ethnicity over time and the percent change between the first and last year in the table.

CTE Participation by Race/Ethnicity Over Time

	2016	2017	2018	2019	Percent Change from 2016
American Indian or Alaska Native	72.40%	72.81%	66.16%	73.56%	1.60%
Asian	67.88%	69.72%	72.31%	72.06%	6.15%
Black or African American	64.17%	63.85%	66.45%	65.55%	2.14%
Hawaiian or Pacific Islander	62.86%	71.01%	68.75%	68.21%	8.52%
Hispanic or Latinx	68.28%	68.64%	69.17%	69.05%	1.13%
Two or More Races	71.36%	72.72%	72.92%	71.81%	0.63%
White	73.64%	74.48%	74.28%	74.86%	1.66%

Male graduates are more likely than female graduates to participate in CTE, 75.2% compared to 70%. Fewer graduates who qualify for Free and Reduced Lunch (FRL) participate in CTE; 74% compared to 68.8% FRL eligible.¹ White students are the most likely to engage in CTE, and Black or African American and Hawaiian or Pacific Islander students are least likely. The change in CTE participants between the graduating class of 2016 and 2019 is relatively similar across race/ethnicity, with one notable exception: There is significant growth in the percentage of Asian graduates participating in CTE compared to other groups. There has been a slight decline in participation by Hawaiian or Pacific Islander students for the past two years. As there are few Hawaiians and Pacific Islanders in Colorado, there is more fluctuation in this trend.



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

75.2%

compared to

70%

¹ Data Table 5 in Appendix 1.



Dual Enrollment by Race/Ethnicity Over Time

	2014	2015	2016	2017	2018	2019	Percent Change from 2014
American Indian or Alaska Native	15.88%	22.64%	27.60%	27.66%	31.89%	32.69%	105.91%
Asian	26.46%	30.41%	36.81%	42.14%	43.65%	45.73%	72.78%
Black or African American	20.57%	31.08%	28.64%	34.00%	36.16%	37.71%	83.33%
Hawaiian or Pacific Islander	26.67%	23.26%	26.43%	23.67%	28.47%	37.09%	39.07%
Hispanic or Latinx	24.81%	29.29%	30.66%	32.32%	34.70%	36.19%	45.86%
Two or More Races	25.22%	28.94%	33.04%	32.66%	37.38%	38.87%	54.11%
White	26.64%	32.24%	34.83%	37.68%	40.12%	41.31%	55.06%

Female graduates are more likely to graduate with dual enrollment than male graduates, at 43.2% and 35.9%, respectively. A much higher percentage of graduates who do not qualify for FRL participate in dual enrollment (41.5%), compared to just 34.9% of graduates who do qualify. The percentage of growth in dual enrollment courses is beginning to increase for students whose families qualify for FRL as there was a 48.4% increase in 2019 compared to a 37.7% increase in 2018.¹ Additionally, the percent of growth in participation for every race and ethnic category is increasing at a slightly increasingly rate. 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	Percent Change from 2014
American Indian or Alaska Native	0.24%	1.00%	1.82%	2.13%	2.39%	3.61%	1421.63%
Asian	0.88%	1.67%	1.58%	2.34%	2.00%	2.59%	192.90%
Black or African American	0.54%	1.09%	1.17%	1.33%	1.09%	1.49%	178.77%
Hawaiian or Pacific Islander	1.48%	0.78%	2.14%	1.18%	4.17%	2.65%	78.81%
Hispanic or Latinx	1.85%	2.65%	2.84%	2.58%	3.26%	3.27%	77.34%
Two or More Races	1.49%	1.58%	2.55%	2.48%	2.77%	2.77%	85.39%
White	1.81%	2.29%	2.66%	3.19%	3.85%	4.23%	133.10%

Students in almost every category are increasingly earning college certificates and/or degrees while in high school. Nearly 4.2% of female graduates completed high school with a postsecondary credential, compared to 3.2% of male graduates (well over 100% increase 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, 3.1% compared to 3.9%, both categories also increased well over 100% in 2019.¹ Additionally, all race and ethnic groups except Hawaiian or Pacific Islander (who we have low numbers of in Colorado) increased in credential completion while in high school. Only White students (4.23%) had higher than the statewide average of students (3.69%) who graduate with a postsecondary credential while in high school, however, Hispanic or Latinx (3.27%) and American Indian or Alaska Native (3.61%) are nearing that statewide average.

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:

College-Going Rates and Behaviors

Though the efforts noted in Part I have the promise of increasing access and making college education more affordable and attainable, the college-going rate remains stagnant, at 56.3%. Increasing college-going 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 continued to be a strong relationship among 2019 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 at 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 was weakest 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	57.2%	54.1%
	Dual Enrollment	71.7%	46.3%
	Credential Attainment in High School	66.1%	56%

While the statewide college going rate has remained stagnant over the past five years, American Indian or Alaska Native, Asian, Hawaiian or Pacific Islander, and Hispanic or Latinx have all demonstrated an increase. These increases are good news in helping erase the equity gaps in credential completion. However, White student college going rates have remained level and Black or African American student's college going rate dropped over 3% after four years of gains. 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 goals.

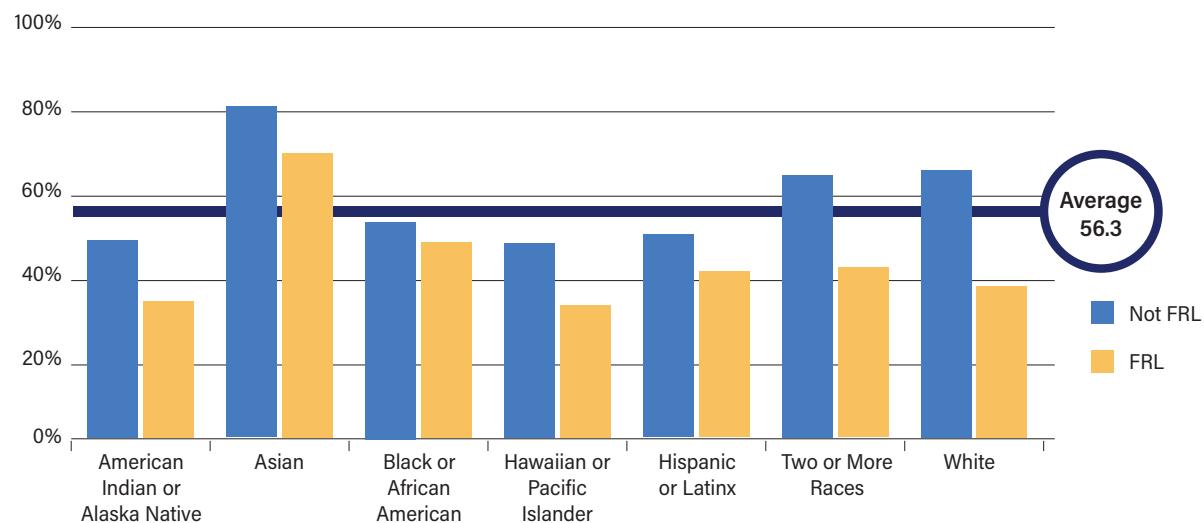
¹ Colorado Department of Higher Education (2019) Concurrent Enrollment 2017-2018 Academic Year. https://highered.colorado.gov/Publications/Reports/Enrollment/FY2018/2018_Concurrent_Enrollment_April_2019.pdf

College-Going Rate by Race/Ethnicity Over Time

	2015	2016	2017	2018	2019	Percent Change from 2015
American Indian or Alaska Native	41.04%	41.93%	38.06%	43.82%	44.95%	9.52%
Asian	72.66%	75.00%	75.23%	79.00%	78.80%	8.45%
Black or African American	53.88%	53.01%	54.84%	55.08%	51.91%	-3.66%
Hawaiian or Pacific Islander	41.09%	49.29%	43.20%	47.92%	44.37%	8.00%
Hispanic or Latinx	43.64%	44.22%	45.79%	45.85%	45.94%	5.26%
Two or More Races	58.87%	58.53%	58.22%	59.14%	59.03%	0.27%
White	61.93%	60.72%	61.15%	61.42%	61.13%	-1.29%

Figure 2 presents college-going rates by income and race/ethnicity. The rates have remained relatively the same compared to 2018. Income levels appear to have the most impact on White and two or more races cohorts as they have the most substantial gaps between those who qualify for FRL and those who do not. Black or African American students have the smallest difference. While low-income White students and Hispanic or Latinx students enroll at similar rates, higher-income Hispanic or Latinx students matriculate to college at the second lowest rates of any race or ethnicity (Hawaiian/Pacific Islander is lowest). Low-income Asian students (70%) are more likely to enroll in postsecondary education than low-income members of any of the other race/ethnicity groups any - Black or African American low-income students (49%) are the next most likely to enroll group.¹

FIGURE 2: College-Going Rate by Race/Ethnicity and Income For 2019 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.

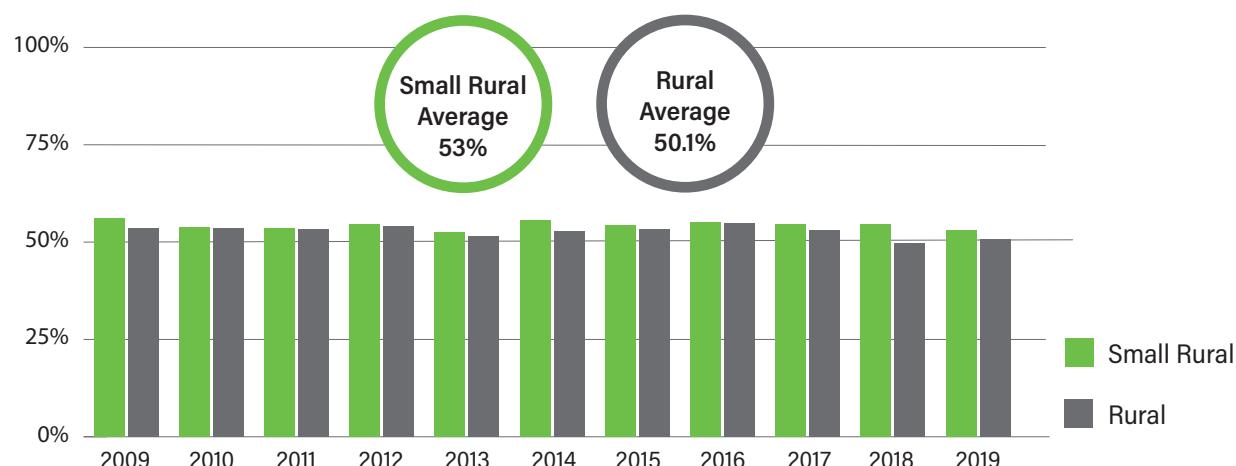
College-Going Rate of Students from Rural Areas Over Time

New to the Postsecondary Report is 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 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 less than 1,000 students.

The college enrollment rate for 2019 high school graduates who attended schools in rural areas (51.4%) is lower than the state average (56.3%). The percentage has remained relatively stagnant for students from rural areas for the past 10 years. Students from small rural districts (53%) are slightly more likely to enroll in college than students from rural districts (50.1%). However, the percentage and number differences between students from rural and small rural districts might not be significant enough to draw any conclusions.

College Enrollment for Rural Areas			
	HS Graduates	College Enrollment	Enrollment Percent
2019	9032	4638	51.4%
2018	8941	4553	51.2%
2017	8468	4528	53.5%
2016	7970	4382	55.8%
2015	7854	4214	54.5%
2014	7972	4270	54.6%
2013	8397	4349	52.9%
2012	8331	4516	54.2%
2011	8897	4750	53.3%
2010	8958	4811	54.1%
2009	8933	4855	54.3%

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





Postsecondary Pathways

Students make many choices about their postsecondary education. They decide how soon to enroll in college after high school. They decide on the type of college to enroll in: public, private or proprietary. They also decide where to enroll: within Colorado or out of state. They also decide on the type of degree they want to pursue. Students pursuing a certificate or associate degree choose a two-year institution whereas those pursuing a bachelor's degree typically choose a four-year school.

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

Figure 4 on page 26 illustrates the many pathways that Colorado's high school class of 2014 has taken through the postsecondary system.

2014 High School Graduates Enrollment Choices in Fall 2014



13%

enrolled in a public
two-year institution



27%

enrolled in a public
four-year institution



15%

enrolled in a
private or out-of-
state institution

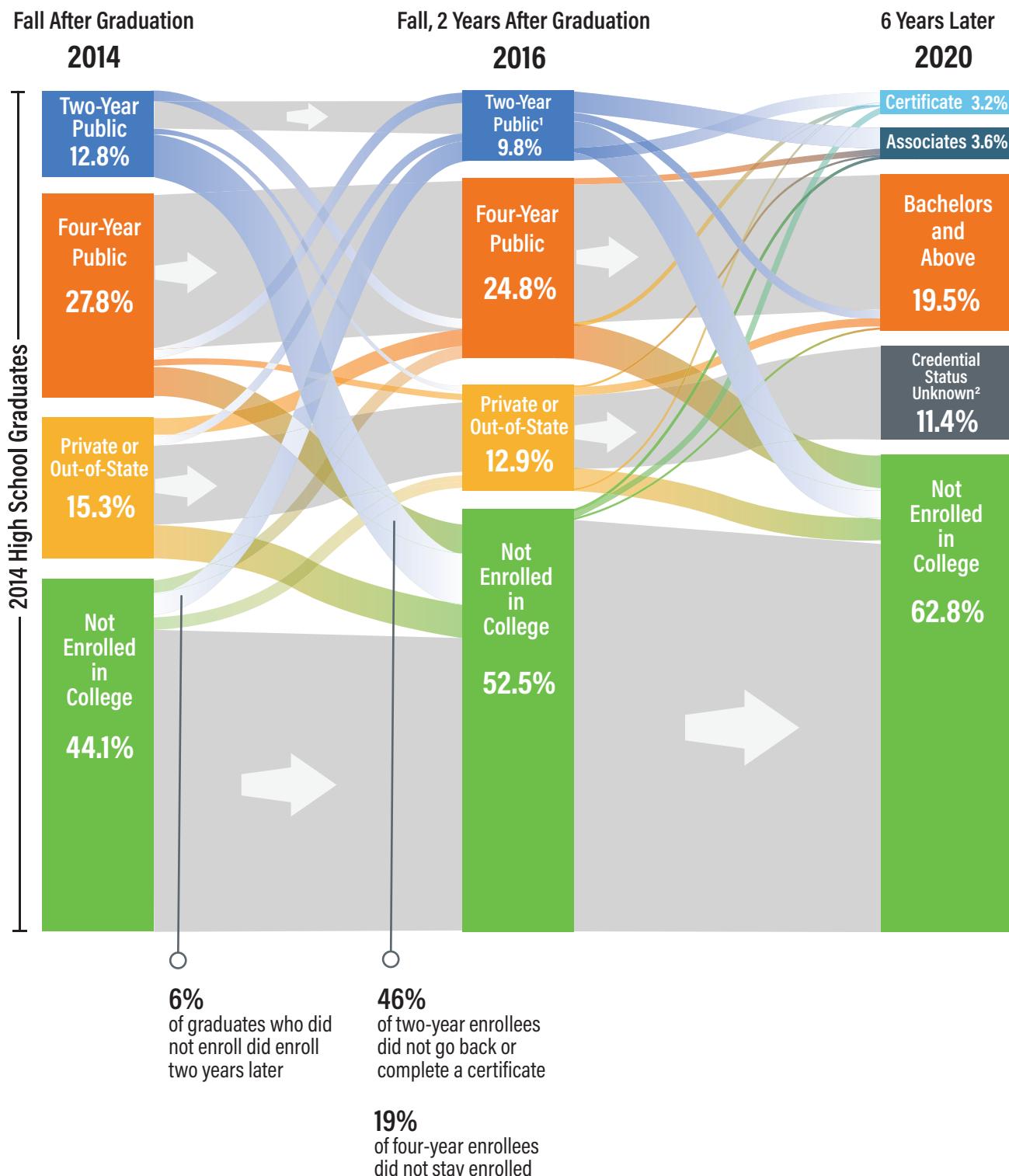


44%

did not enroll in
postsecondary
education

Students often move between education sectors over the course of their education. Figure 4 on page 26 shows the pathways that 2014 graduates took over six years.

FIGURE 4: Pathways of High School Graduates Through Postsecondary Education



¹ Includes students who completed a certificate in less than 1-year

² Credential status is unknown since CDHE does not have completion data for out-of-state or private institutions (except Regis, Colorado College and DU).

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 2019 graduating class, 72% attended an in-state public college or university in the fall 2019 term. Four-year institutions (either public or private) enroll the most students who matriculate to college in the fall following high school graduation (73.2% for the 2019 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, the college-going rate increases an average of over 7% (for high school graduate classes of 2014-2018). 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.

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	%	%
2019	56.34%	26.78%	73.22%						
2018	56.63%	27.37%	72.63%	63.76%	65.14%	34.86%			
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%

There are no significant differences in delaying college enrollment between race/ethnicity categories. The percentages range from 8.7% (Asian) and 14.4% (American Indian or Alaskan Native). There is a 1% difference between gender as well as students eligible and not eligible for FRL - all are 10% or just over.

The number of high school students is declining nationally, as a result more out-of-state institutions are recruiting with greater intensity in Colorado. Over a quarter (25.3%) of high school graduates in 2019 attended an out-of-state college, up from 24.7% in 2018. Ten years ago (2009) the percentage of out-of-state enrollments was 19.5%, out-of-state institutions' recruitment strategies are having a clear Impact on in-state enrollment.

Figure 5 illustrates where high school graduates in Colorado enroll; Arizona overtook California as top out-of-state choice for our state's students. The other top choices in order of the number of students enrolling are Wyoming, Nebraska, and Kansas.

FIGURE 5: Out-of-State Enrollment

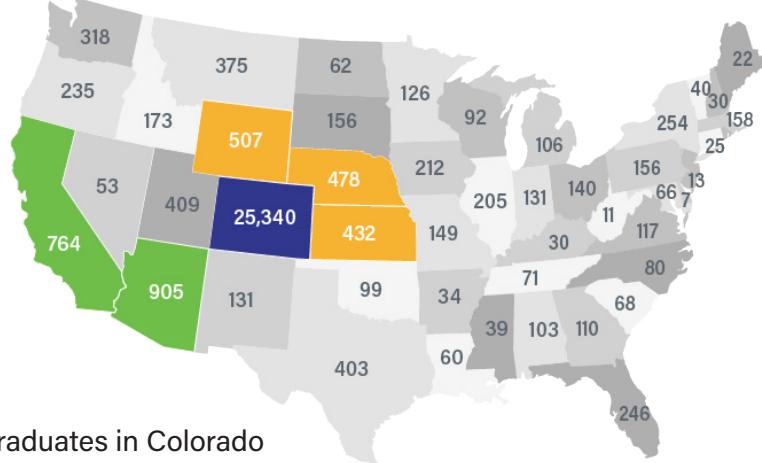


FIGURE 6: In-State Enrollment by Race/Ethnicity and Income

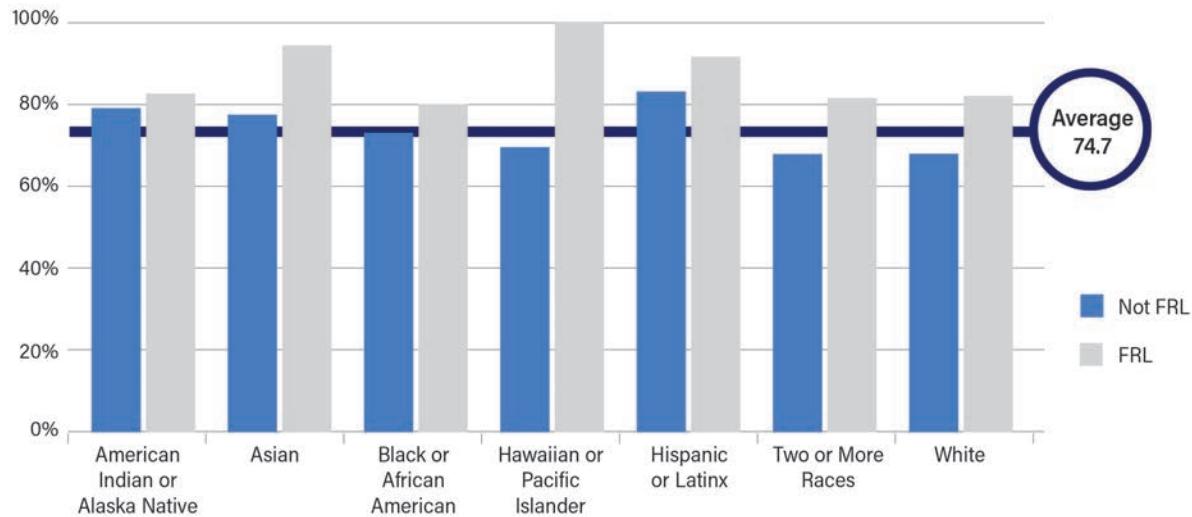
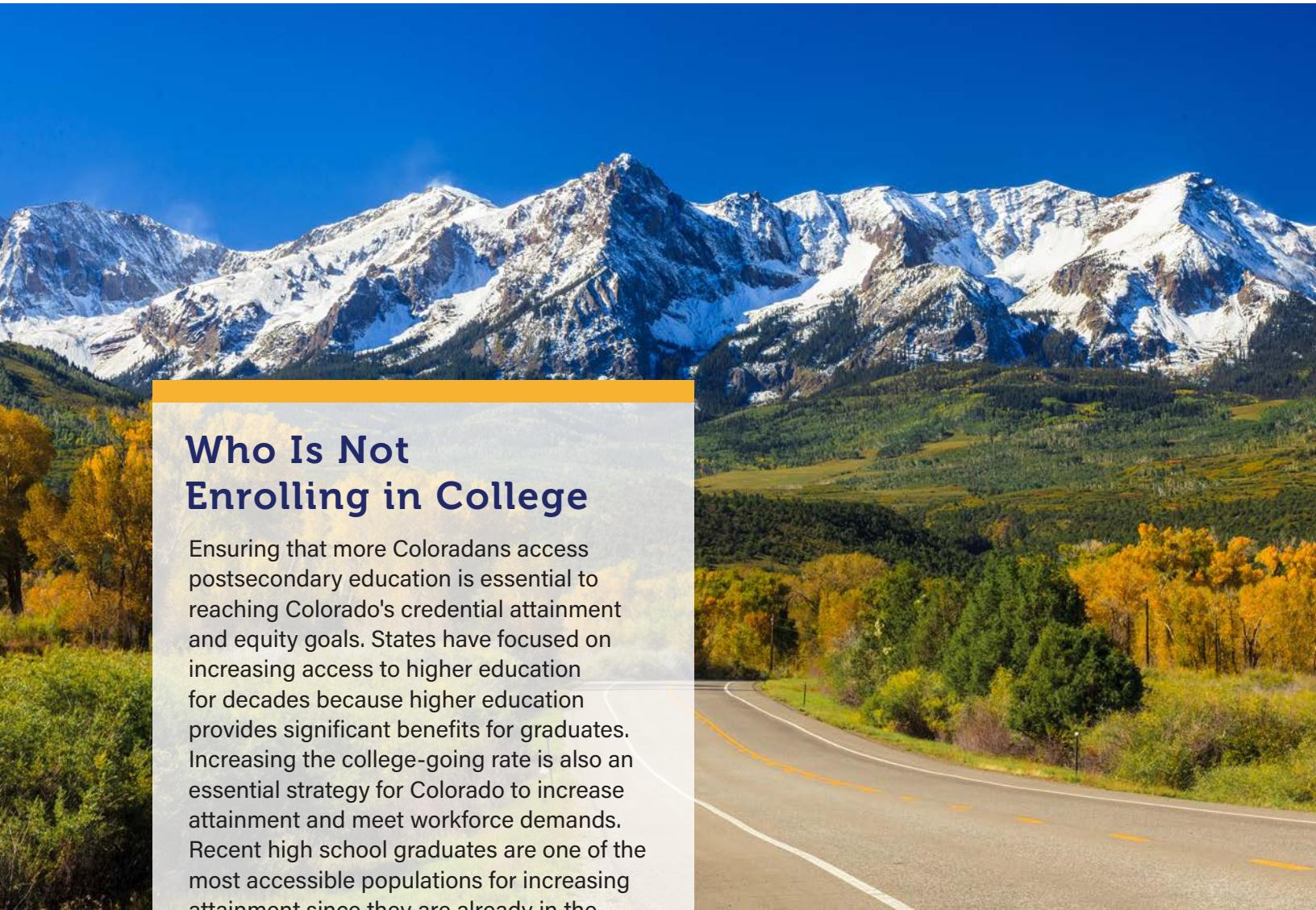


Figure 6 displays enrollment in in-state institutions by Colorado high school grads by race/ethnicity and income. Students who qualify for FRL are more likely to enroll in-state than those who do not qualify for FRL. As a group, Hispanic or Latinx students are most likely to enroll at an in-state institution, followed by Asian students. When considering race/ethnicity and Income together, Asian and Hawaiian/Pacific Islander students eligible for FRL are the most likely to enroll in in-state Institutions, and White and Two or More Races students who are not eligible for FRL and 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 benefits for graduates. Increasing the college-going rate is also an essential strategy for Colorado to increase attainment and 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. As noted earlier, in 2019 a total of 25,527 high school 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:



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 are continuing to do a better job at graduating their students. Approximately 59.8% of 2014 high school graduates who enrolled in an in-state public institution attained a credential within six years. This marks the sixth consecutive year that six-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 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 in an in-state public college or in one of the three private Institutions that report data to the state¹. This section will also provide information on the 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 (3.1%) pursue a certificate in their first year after high school. Students who received a post-high school credential¹ while in high school were more likely to pursue shorter degree paths (certificate or associate degree).



Postsecondary Credential Enrollment for High School Graduates of 2019

	All Students	Student with No Credential in High School	Student Receiving a Credential in High School
Certificate	3%	3% ²	5%
Associate Degree	29%	29%	36%
Bachelor's Degree or Beyond	68%	68%	59%

Growing evidence suggest 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 into 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 clearly 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 (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. As SAI expands in use across the state and standalone developmental education courses decrease, we should see this positive trend continue and contribute to an increase in student credential completion. To better understand these trends, CDHE received a grant from the Education Commission of the States recently to revise data collection, reporting, and subsequently analysis of how practices and measures are impacting student success.

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 26% of the class of 2019 who enrolled in a Colorado public institution were placed in developmental education. This is a slight increase from 2018, 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
2019	21,806	4,936	1,874	897	5,833	26.7%
2018	21,941	4,750	2,530	942	5,692	25.9%
2017	21,234	6,770	3,072	613	7,383	34.8%
2016	21,444	6,708	3,655	989	7,697	35.9%
2015	19,952	6,443	3,608	550	6,993	35.0%
2014	19,143	5,714	3,625	762	6,476	33.8%
2013	20,196	5,486	4,374	1,214	6,700	33.2%
2012	20,220	5,718	4,863	1,472	7,190	35.6%
2011	21,790	7,185	5,600	1,138	8,323	38.2%
2010	22,297	7,590	6,095	1,227	8,817	39.5%

A higher percentage of high school graduates who enroll in two-year institutions require developmental education courses compared to four-year institutions (41% versus 21%). This is to be expected as two-year institutions are open enrollment. However, the below chart demonstrates that the slight increase in the statewide need for developmental education is due to the increase at four-year institutions. Two-year institutions' trend in students needing developmental education is continuing to decrease.

Number of 2019 High School Graduates at In-State Public Institutions Who Need Developmental Education by Institution Type

Two-Year	Four-Year
2,654	3,179

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
2019	6,461	41.1%	15,345	20.7%
2018	6,522	44.5%	15,419	18.1%
2017	5,883	58.6%	15,351	25.6%
2016	6,222	55.9%	15,222	27.7%
2015	5,671	61.5%	14,281	24.6%
2014	5,173	56.7%	13,970	25.4%
2013	5,845	58.1%	14,323	23.0%
2012	6,376	62.6%	13,844	23.1%
2011	7,052	65.6%	14,738	25.1%
2010	7,594	66.9%	14,703	25.4%

The below table shows that developmental education rates for all race and ethnicity groups have declined since 2012. However, consistent with national trends, there are significant equity gaps in developmental education needs across race and ethnicity groups. The aforementioned decline in overall need for developmental education starting in 2018 which coincided with the developmental education policy changes benefited all race/ethnicities. However, African American/Black and Hispanic are still more than twice as likely to require developmental education than white students in Colorado.

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

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

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
Female	38.5%	35.5%	37.8%	37.5%	38.7%	37.4%	28.8%	30.5%
Male	32.2%	30.5%	29.2%	32.2%	32.7%	31.7%	22.7%	22.2%
Not FRL	29.8%	28.1%	29.6%	29.8%	29.9%	27.9%	21.3%	21.8%
FRL	56.6%	52.3%	52.5%	53.5%	54.7%	55.2%	41.1%	41.4%

Part 2:

Developmental Education by Subject

Students in Colorado are more likely to require developmental math than developmental English (either reading or composition). Of the class of 2019, 23% 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
2019	21,806	4,104	895	4,999	22.9%
2018	21,941	4,058	878	4,936	22.5%
2017	21,234	5,625	647	6,272	29.5%
2016	21,444	5,571	993	6,564	30.6%
2015	19,952	5,510	578	6,088	30.5%
2014	19,143	4,731	845	5,576	29.1%
2013	20,196	4,374	1,207	5,581	27.6%
2012	20,220	4,504	1,484	5,988	29.6%
2011	21,790	5,815	1,294	7,109	32.6%
2010	22,297	6,053	1,430	7,483	33.6%

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
2019	21,806	2,658	186	2,531	11.6%
2018	21,941	2,643	304	2,759	12.6%
2017	21,234	4,468	199	4,116	19.4%
2016	21,444	4,470	292	4,297	20.0%
2015	19,952	4,256	145	3,926	19.7%
2014	19,143	3,633	209	3,444	18.0%
2013	20,196	3,584	723	3,796	18.8%
2012	20,220	3,806	892	4,205	20.8%
2011	21,790	4,719	763	4,903	22.5%
2010	22,297	5,063	785	5,301	23.8%

Percent of 2019 High School Graduates at In-State Public Institutions with Developmental Education Needs by Subject

Both Subjects
26.7%

Math
22.9%

English
11.6%

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 32% 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 recently (well over 10%). Once, again, Colorado's developmental education reform that included the use of multiple measures for course placement as well as the growth of using SAI instead of relying on standalone developmental education courses is clearly having a positive impact.

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
2019	4,936	977	619	1,596	32.3%
2018	4,750	1,588	566	2,154	45.3%
2017	6,770	2,459	861	3,320	49.0%
2016	6,708	2,666	630	3,296	49.1%
2015	6,443	3,058	516	3,574	55.5%
2014	5,714	2,863	437	3,300	57.8%
2013	5,486	3,160	70	3,230	58.9%
2012	5,718	3,391	37	3,428	60.0%
2011	7,185	4,462	0	4,462	62.1%
2010	7,590	4,868	0	4,868	64.1%

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.

A significantly lower percentage of students in need of developmental support pursue bachelor's degrees compared to students who pursue certificate programs and associate degrees. This is to be expected as two-year colleges offer the vast majority of certificates and associate degrees and also have the highest developmental education needs.

Developmental Education Need by Program Enrollment

Developmental Need	Certificate	Associate	Bachelor or Above
No	2.0%	22.5%	73.8%
Yes	3.9%	48.8%	46.2%

As the below chart illustrates, students with developmental needs are much less likely to persist or complete a credential their first year in college. However, students with and without developmental needs are persisting and completing at slightly higher rates than in the previous year. Looking at race and ethnicity categories, American Indian/Alaskan Native and Asian students have the widest gaps between those who require developmental education and those that do not for first year persistence and completion. 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	86.2%	87.2%
Yes	69.9%	71.2%

* 2017 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	48.8%	86.0%	56.1%	90.0%
Black (not Hispanic)	75.5%	84.8%	75.9%	85.1%
Asian	68.7%	93.1%	68.9%	93.2%
Hawaiian/Pacific Islander	86.7%	76.9%	86.7%	80.8%
Hispanic	67.7%	79.8%	69.3%	81.1%
Two or More Races	66.2%	82.8%	67.6%	83.7%
White (not Hispanic)	72.0%	87.7%	73.3%	88.8%

* 2017 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	72.5%	87.9%	73.7%	88.9%
Male	66.2%	84.4%	67.9%	85.4%
No FRL	73.0%	88.1%	74.4%	89.1%
FRL	65.1%	77.0%	66.6%	78.2%

* 2017 Cohort

The following tables show credential completion rates. Developmental education students 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 Asian and American Indian/Native Alaskan. Once again, females are much more likely than males to graduate in two or four years. Finally, students eligible for FRL and need developmental education are the least likely to graduate in four years. In a few years, it will be interesting to see if the developmental education policy changes will positively impact completion rates as well.

Completion by Developmental Need in 2 Years and 4 Years

Developmental Need	Credential Completion Within 2 Years (2017 Cohort)	Credential Completion Within 4 Years (2015 Cohort)
No	6.9%	43.2%
Yes	8.8%	24.1%

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	9.8%	12.0%	15.8%	21.3%
Black (not Hispanic)	6.5%	3.1%	21.4%	42.7%
Asian	4.1%	4.1%	15.7%	27.0%
Hawaiian/Pacific Islander	6.7%	3.8%	23.5%	44.4%
Hispanic	8.5%	7.5%	22.0%	36.8%
Two or More Races	7.1%	5.2%	20.5%	41.8%
White (not Hispanic)	10.2%	7.2%	27.4%	45.5%

*2017 Cohort, **2015 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	7.4%	6.6%	26.0%	48.7%
Male	7.9%	5.7%	21.4%	37.2%
No FRL	9.6%	6.8%	25.8%	45.0%
FRL	7.7%	7.2%	20.6%	33.6%

*2017 Cohort, **2015 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 has risen each year since these data have been available. The average GPA for students who graduated high school in 2019 and attended a Colorado institution was 2.91 on a scale of 4.0. This is the largest year-to-year increase (2018 the average was 2.83).



2.91
Cumulative GPA

Credit accumulation has also increased overall, particularly the number of students who complete 30 credits in their first year of college. For the class of 2019, 50.1% of students completed more than 30 credits their first year, up from 40.1% in 2009. The average credit accumulation in the first year of college for the class of 2019 was 32.5 credits.³

First-Year College Credit Accumulation for 2019 High School Graduates

82%

15 or More Credits

67%

24 or More Credits

50%

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.



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 7.4 fewer credits than the overall average. Black or African American students also had the lowest average GPA. Hispanic and Latinx students had higher GPAs and credit accumulation on average 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. In fact, 20% more students who did not qualify for FRL completed a full-time or on-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. If Colorado is going to erase equity gaps in attainment, the state must tailor supports to meet the unique needs of diverse and low-income students earlier in the education pipeline.¹

If Colorado is going to erase equity gaps in attainment, the state must tailor supports to meet the unique needs of diverse students earlier in the education pipeline.

To better understand whether these measures matter in Colorado, CDHE did an initial analysis to understand whether there was evidence that GPA and credit accumulation in a student's first year led to improved college completion. When controlling for demographic variables, 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 meaningful for students and not just due to chance.

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 26 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.

For the class of 2018,¹ 81.2% of students who enrolled in an in-state college that fall enrolled for a second year in fall 2019 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 2018 Colorado high school graduates who attended four-year institutions was 86.5%.

Comparatively, the persistence rate for high school graduates who attended two-year colleges was 63.7%. 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 2018 graduates at two-year institutions was 67.7%.

Persistence for High School Graduates of 2018

	Persistence	Persistence and Completion
Overall	80.0%	81.2%
Two-Year Institutions	63.7%	67.7%
Four-Year Institutions	86.5%	86.9%

Persistence Rates by Gender, Race/Ethnicity and Income

Persistence rates also reflect equity gaps. Females (81.7%) have a persistence rate almost four percentage points higher than males (77.3%). The first-year persistence for American Indian or Alaska Natives is 71.2%, for Hispanic or Latinx students it is 72%, and for Black or African American students it is 72.1%. Only 69.5% of students who qualified for FRL persist to the second fall semester, compared to 82.8% 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 2017-2018 academic year.

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

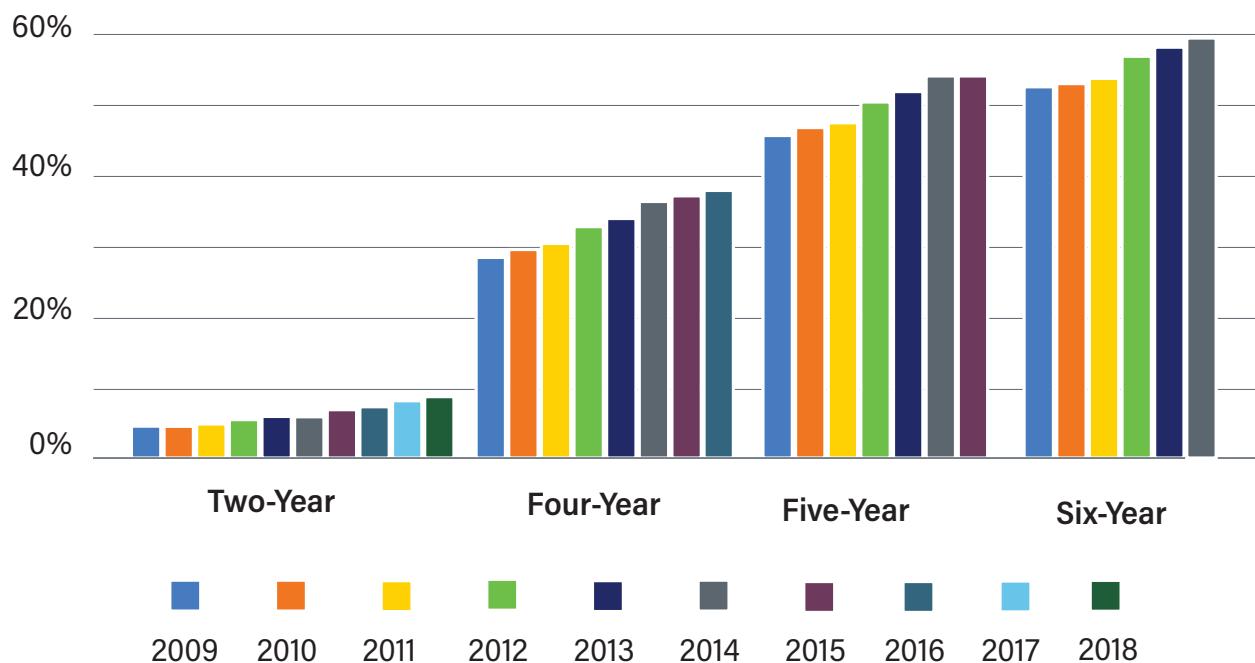
4 Data Table 14 in Appendix 1.

Credential Completion

Figure 7 provides a visual 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 will complete in two years, 38 will completed in four years and 60 will have completed in six years. Colorado's institutions of higher education continue to improve the completion rates for high school students who enroll in college the fall after graduation. Since 2009, the two-year completion rate has increased by 84% and the four-year completion rate has increased by 34%. Not only have completion rates increased, but the trajectory of completion rates has improved each year. Unfortunately, rates are not growing quickly enough; for Colorado to reach its attainment goals, many more students must complete a degree or credential between now and 2025.

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.

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 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 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 2015 and 2016 College Enrollees

	2015 High School Graduates		2016 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	7.0%	40.7%	7.8%	42.4%
Male	6.6%	32.5%	6.6%	32.9%
Race/Ethnicity				
American Indian or Alaska Native	4.8%	19.1%	7.1%	23.2%
Asian	3.0%	37.8%	4.1%	41.2%
Black or African American	4.9%	21.0%	3.3%	19.8%
Hawaiian or Pacific Islander	5.7%	34.3%	8.7%	26.1%
Hispanic or Latinx	8.1%	29.4%	8.8%	30.0%
Two or More Races	5.1%	35.3%	4.9%	30.3%
White	6.9%	41.1%	7.2%	43.0%
Socio-economic Status				
No FRL	6.5%	39.7%	6.9%	41.1%
FRL	7.8%	27.2%	8.2%	28.2%

Conclusion and Policy Recommendations

This report highlights the various pathways taken by Colorado's high school students into postsecondary 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. Still, Colorado must do more to accelerate students' movement through these pathways and increase its college-going rate so that more Colorado students obtain a postsecondary credential. In particular, Colorado must close persistent equity gaps.

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

- 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;
- Colorado has dramatically grown state need-based aid and work-study funding available for institutions to award to students;
- 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 all public institutions of higher education. COSI students persist at significantly high rates (up to 94%). Approximately 61-67% are students of color, and about two-thirds are female. More than two-thirds were identified as eligible to receive a federal Pell grant. COSI recently launched a new program "Finish What You Started," a two-year pilot program providing wraparound support services for low-income Adams County, Colorado adults, aged 25+, to obtain college credentials or degrees. The program will largely serve students of color and first-generation students with some college, encouraging them to re-enroll in postsecondary education and graduate;

- An [equity toolkit](#) that was the result of the Talent, Innovation and Equity grant work with the Lumina Foundation was created last year. This work led to help train faculty to respond to the cultural needs of students in the classroom and implementation of institutional interventions designed to inform best practices;
- The Lumina grant also enabled the creation of the Equity Champions Coalition (ECC). The ECC is in its second cohort and consists of professionals and students engaged in diversity, equity, and inclusion. Their work focusses on convening and advocating for change at a policy level. In 2020, the ECC produced the inaugural [educational equity report](#) and held an Educational Equity Day of Dialogue in 2021;
- Colorado is quickly becoming a national leader in the implementation of [Open Educational Resources](#) (OER). OER are freely available online teaching and learning materials accessible to students, instructors and self-learners and are shown to reduce costs and increase student success; and
- To remove a barrier to higher education in the state, public and private higher education institutions along with CDHE held the 3rd annual Colorado Free Application Day. In total, students saved more than \$2.3 million in application fees and, as a result, increased their likelihood of attending a college/university and doing it in Colorado.

CDHE and CCHE knows that the pandemic impact will be profound on higher education for years to come. As a result, CDHE has already began hosting a statewide working group on post pandemic strategies which meets bi-weekly.



Bills passed in the 2020 legislature that can enhance college-going and credential completion in Colorado:

COLLEGE CREDIT FOR WORK EXPERIENCE

In June 2020, the Colorado Legislature approved and the Governor signed into law HB20-1002, the College Credit for Work Experience Act. The act requires that the statewide General Education Council (composed of academic representatives from public institutions of higher education across the state) implement a plan for determining and awarding academic credit for postsecondary education based on work-related experience. The plan must not be created, adopted, or implemented unless sufficient money is available from gifts, grants, or donations to cover the costs of creating, adopting, and implementing a plan.

Beginning in the 2022-23 academic year, unless a plan is implemented prior to then, institutions shall accept and transfer academic credit awarded for work-related experience as courses with guaranteed-transfer designation or part of a statewide degree transfer agreement.

Beginning March 1, 2024, and each year thereafter, the council shall report to the education committees of the senate and house of representatives, or any successor committees, regarding the implementation of the credit for work-related experience plan.

COLLEGE ADMISSION USE OF NATIONAL TEST SCORE

Also in 2020, the legislature approved and the Governor signed into law HB20-1407, College Admission Use of National Test Score. During the pandemic, high school juniors in Colorado and across the nation had their standardized exams (SAT and ACT) cancelled or rescheduled until the next fall - during the time many of them would be applying for college admission. As state law required the use of standardized exams in the admission process by state four-year institutions, the legislature moved into action to be sure these students were not unfairly penalized and prevented access to higher education in Colorado. To that end, the bill allows for public institutions of higher education to not require SAT or ACT scores as part of the admission process for the high school graduating class of 2021.

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

The findings in this report, combined with best practices underway in other states, suggest that Colorado might pursue some of the following policy interventions:

1

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

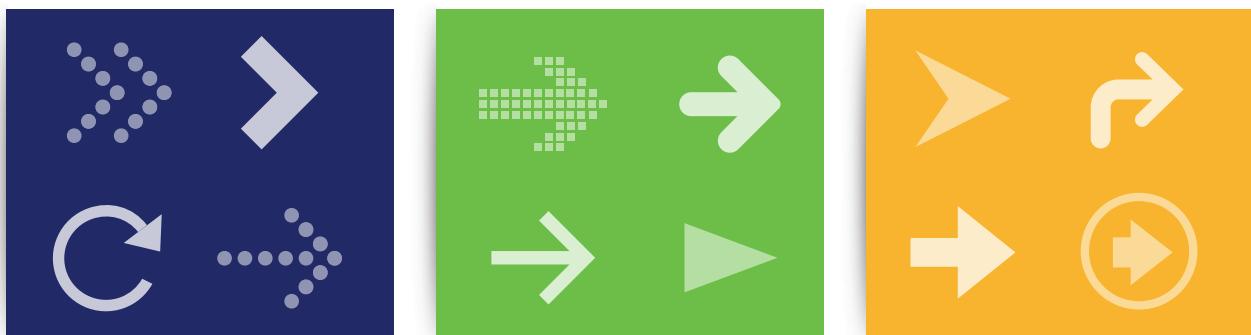
As previously discussed in this report, Colorado will not be able to reach its credential completion goals or be able to erase the equity gap between races in earning a certificate or degree unless more effective work is done to encourage and support first generation, low-income, students of color and students from rural areas to enroll in and succeed in higher education. Many programs exist across the state which have proven successful. 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 an Academic Core Completion Certificate that can be awarded through Concurrent Enrollment and by both two- and four-year institutions.

This certificate would complement efforts already undertaken by the Colorado Community College System to identify when students have completed the general education core requirements with a stamp on their transcript. It will help students understand the importance of focusing on core education requirements, which are required for most degree programs and are transferable through the state's Guaranteed Transfer Pathways program. It also gives students a meaningful recognition of progress and a powerful nudge to ensure they enroll in the recommended courses. Research has shown that this can have a powerful effect on students by recognizing their progress and motivating them to complete their studies. The recognition also provides students with certification that they have acquired knowledge and key competencies in demand by employers. These competencies include written communication skills, quantitative literacy, and critical thinking and reasoning. Indiana is pursuing a similar approach and is also ensuring that its CTE completions can be translated into credit toward academic programs.

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 on curriculum and Statewide Articulation Agreements, identify student pain points and solutions, and connecting more with faculty.

Work has already begun to engage and connect with academic advisors at colleges and universities across the state. Academic advising is critical in ensuring students stay in college and earn a credential in a timely and informed manner. But much more work is needed. Utilizing the expertise of academic advisors can result in solutions to common student issues statewide - not just at one or a few institutions. System and statewide improvements can be developed and implemented contributing to greater numbers of student success.

4

Implement the recommendations included in CDHE's Report on Educational Equity.

In late 2020, a statewide Equity Champions Coalition (ECC) created and promoted the inaugural Report on Education Equity. The report serves as a first step in developing a strategic plan to drive improvements in success and completion for students of color in Colorado. A thoughtful and inspiring section was included in the report dedicated to clear and actionable recommendations, including a plan to make immediate forward progress. The recommendations center on central themes of communication, equity minded practices, and policy opportunities. Implementing many of the recommendations can have a promising impact on erasing equity gaps in Colorado. These should 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 prior to 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.

Figure 1

To create figure 1 the following estimates were used: one course =1 to 3 credit hours, two courses = >3 to 6 credit hours, three course = >6 to 9 credit hours, one semester = 12-23.5 credit hours, one year = 24-47.5 credit hours, two years or more = 48+ credit hours

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://highered.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
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	57.4%
2016	56,238	31,384	55.8%	31,873	56.7%
2015	53,128	30,042	56.5%	30,481	57.4%
2014	53,772	30,085	55.9%	30,424	56.6%
2013	54,498	30,115	55.3%	30,348	55.7%
2012	52,012	29,625	57.0%	29,759	57.2%
2011	52,261	29,979	57.4%	30,050	57.5%
2010	51,702	29,937	57.9%	29,966	58.0%
2009	50,184	29,529	58.9%	29,548	58.9%

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
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
2019	60,191	23,799	39.54%	2220	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
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	Percent Change
CTE Enrollee							
Gender							
Female	N/A	N/A	68.94%	69.48%	69.64%	69.65%	1.03%
Male	N/A	N/A	73.73%	74.47%	74.63%	75.16%	1.93%
Socio-economic Status							
Non-FRL	N/A	N/A	72.33%	73.74%	73.58%	73.97%	2.28%
FRL	N/A	N/A	68.90%	67.88%	68.43%	68.75%	-0.21%
Dual Enrollment							
Gender							
Female	28.13%	33.92%	36.37%	39.13%	41.77%	43.15%	53.39%
Male	23.27%	28.23%	30.09%	32.36%	34.58%	35.89%	54.24%
Socio-economic Status							
Non-FRL	26.37%	32.06%	34.87%	37.73%	40.44%	41.53%	57.47%
FRL	23.55%	28.57%	29.39%	31.17%	32.43%	34.94%	48.36%
Postsecondary Credential Prior to Graduation							
Gender							
Female	1.99%	2.72%	3.19%	3.47%	3.89%	4.18%	109.68%
Male	1.42%	1.82%	1.98%	2.23%	2.96%	3.20%	125.68%
Socio-economic Status							
Non-FRL	1.82%	2.27%	2.74%	3.03%	3.68%	3.94%	116.92%
FRL	1.34%	2.30%	2.25%	2.45%	2.76%	3.11%	131.44%

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
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
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 2019 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	30,224	62.26%	73.65%	74.23%
Male	29,967	50.37%	76.06%	71.94%
Race/Ethnicity				
American Indian or Alaska Native	416	44.95%	80.75%	60.96%
Asian	2047	78.80%	81.15%	81.90%
Black or African American	2676	51.91%	77.90%	66.52%
Hawaiian or Pacific Islander	151	44.37%	77.61%	68.66%
Hispanic or Latinx	18822	45.94%	87.68%	60.04%
Two or More Races	2238	59.03%	69.87%	78.50%
White	33841	61.13%	68.84%	78.28%
Socio-economic Status				
No FRL	41998	62.42%	70.72%	77.54%
FRL	18193	42.30%	88.38%	58.49%

DATA TABLE 9. College Enrollment by Gender and Income Over Time

Sources: CDE, SURDS, NSC

High School Graduation Year	FEMALE	MALE	No FRL	FRL
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
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	2.84%	26.55%	65.68%
2010	2.7%	28.5%	64.9%
2009	2.8%	26.5%	65.7%

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

Sources: CDE, SURDS

High School Graduation Year	2018 HS Graduates Enrolled In-State	Average GPA	Average Credits	% with 15 Credits or More	% with 24 Credits or More	% with 30 Credits or More
2019	22,258	2.913293	32.502703	81.79%	67.12%	50.08%
2018	22,550	2.83	32.18	82.1%	66.9%	49.4%
2017	21,859	2.81	31.63	80.9%	66.4%	48.7%
2016	21,905	2.78	30.58	79.5%	63.6%	46.1%
2015	20,333	2.79	29.53	80.0%	63.8%	44.3%
2014	19,377	2.78	30.03	82.6%	66.3%	45.4%
2013	20,865	2.76	29.12	80.4%	63.5%	43.0%
2012	20,903	2.72	28.80	79.5%	63.7%	42.4%
2011	22,458	2.67	28.28	77.7%	61.4%	39.7%
2010	22,972	2.66	27.86	77.7%	60.3%	38.3%
2009	23,182	2.66	28.11	77.4%	60.9%	40.3%

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.

DATA TABLE 12. First-Year Leading Indicators of Success by Gender, Race/Ethnicity and Income for 2019 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	3.00	33.30	82.90%	68.51%	52.28%
Male	2.81	31.54	80.45%	65.45%	47.43%
Race/Ethnicity					
American Indian or Alaska Native	2.69	28.18	75.94%	60.15%	36.84%
Asian	3.11	38.42	88.55%	77.80%	62.56%
Black or African American	2.51	25.08	68.91%	46.64%	29.11%
Hawaiian or Pacific Islander	2.75	31.94	77.78%	62.22%	46.67%
Hispanic or Latinx	2.69	28.74	73.14%	55.42%	40.13%
Two or More Races	2.88	33.02	82.37%	70.41%	53.14%
White	3.03	34.27	86.35%	73.21%	55.25%
Socio-economic Status					
No FRL	2.90	33.68	84.90%	71.27%	53.51%
FRL	2.57	27.03	71.02%	51.78%	35.53%

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
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 2019 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	81.69%	66.33%	88.40%	83.02%	70.16%	88.63%
Male	77.36%	60.37%	84.32%	78.96%	64.65%	84.83%
Race/Ethnicity						
American Indian or Alaska Native	71.21%	61.90%	75.56%	71.97%	61.90%	76.67%
Asian	88.85%	74.57%	92.40%	89.19%	75.86%	92.51%
Black or African American	72.08%	59.16%	78.04%	73.10%	62.06%	78.19%
Hawaiian or Pacific Islander	63.16%	50.00%	69.23%	63.16%	50.00%	69.23%
Hispanic or Latinx	71.98%	58.99%	80.66%	74.22%	64.07%	81.00%
Two or More Races	80.21%	62.31%	86.47%	80.73%	63.82%	86.64%
White	83.25%	66.93%	88.93%	84.52%	70.69%	89.34%
Socio-economic Status						
No FRL	82.81%	66.17%	88.91%	84.13%	70.25%	89.22%
FRL	69.49%	58.07%	76.96%	71.39%	62.01%	77.52%

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
2017	8.1%	NA	NA	NA
2016	7.2%	NA	NA	NA
2015	6.8%	12.0%	NA	NA
2014	5.8%	36.1%	NA	NA
2013	5.9%	33.7%	51.6%	NA
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/tools/enrollment/cutoffs-2018-20/>

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/tools/enrollment/cutoffs-2018-20/>

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For More Information

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

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