

PATHWAYS TO PROSPERITY:

Postsecondary Access and Success for Colorado's High School Graduates



2020

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

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



COLORADO

**Department of
Higher Education**

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

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

May 15, 2020

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

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The COVID-19 pandemic is affecting our economic stability, workforce, education system, and the future for many Coloradans. As we recover, Colorado's industries will depend upon higher education to produce the educated workforce needed in a changed environment and altered economy. Families and individuals are seeking stable and financially rewarding careers. It is vital to prioritize postsecondary attainment and the pathways to achieve that.

With the current uncertainty, some families question whether high school seniors should pursue a degree or credential in the fall of 2020. One survey shows that 10 percent of high school graduates who were planning to enroll in four-year colleges are now making alternative plans. This finding could place these students' and Colorado's future at risk. We need to ensure that these individuals can access and complete the education necessary to succeed.

With so much unpredictability, implementing the recommendations outlined in this report are essential. Colorado's focus on improving postsecondary completion is paying off. Each year, for the last five years, high school graduates who enrolled in college were more likely to complete their credential than the class before them. 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 African American or Black and Hispanic or Latinx students, overall rates have stayed relatively consistent at about 56 percent over the last five years. Particularly worrying is the growing evidence that equity gaps in higher education may be exacerbated as the pandemic disproportionately affects our students of color and low-income students.



Colorado's investment in dual and Concurrent Enrollment, CTE and credential attainment 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 continue in postsecondary education, so they experience the stability and economic security of a credential.

The higher education system is innovative. In the last two months, campuses have come together to bring quality postsecondary training to students wherever they are. They have found ways to support students' needs, including food and shelter, mental health, technology and academic support. And although some question the transition to online delivery methods in the short-term, we know that when done well, online instruction can be just as effective as in-person instruction. This pandemic is changing how we deliver education in the future. The entire system is coming together to ensure we are ready to meet our workforce needs.

The recommendations in this report encourage students to enroll this fall and transfer if they are looking to stay closer to home for a semester. Our recommendations also focus on 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 Colorado needs to grow and thrive.



Dr. Angie Paccione
Executive Director
Colorado Department of Higher Education



KEY FINDINGS:

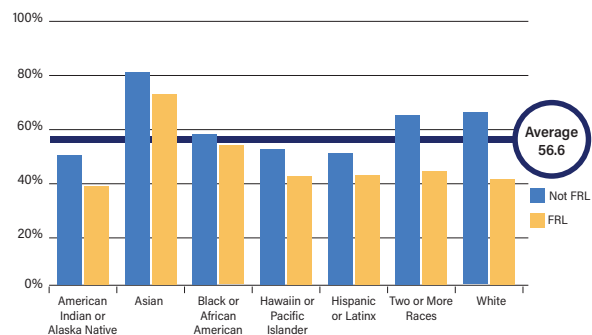
High School Pathways to a Postsecondary Credential (2018 High School Graduates)

- 72 percent enrolled in CTE courses in high school.
- 38 percent participated in dual enrollment.
- 3.4 percent graduated with a postsecondary credential.

Postsecondary Enrollment Pathways (2018 High School Graduates)

- 57 percent of high school graduates enrolled in postsecondary education the fall after graduation but enrollment gaps persist.
- 25 percent enrolled out-of-state.
- 73 percent attended a 4-year institution

An additional 10 percent 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, eight will complete in two years, 37 will complete in four years and 58 will graduate in six years.
- Postsecondary completion rates have risen for every high school class since 2009.

Policy Recommendations

- CDHE should work with institutions of higher education, K-12 partners, the College Board and My Colorado Journey to launch a direct admit campaign.
- Create an Academic Core Completion Certificate that can be awarded through Concurrent Enrollment and by both two- and four-year institutions.
- CDHE, in partnership with the General Education Council who already oversees transfer pathways, should lead an effort to create a finite number of structured degree pathways.
- Develop an annual equity report for Colorado that examines student outcomes by different populations and task a state-wide body with addressing the inequities the report identifies.

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Introduction

For Colorado to meet its future workforce demands, we must put more residents on a path to achieve a postsecondary degree or credential.

Pathways are essential not only to individual success but also to meeting the state's economic needs. [The 2019 Colorado Talent Pipeline Report](#) identified that 64 percent of Colorado's top jobs¹ require a credential beyond high school. However, only 57.6 percent of Coloradans 25-34 years old, and 56.4 percent of those 25 and older, hold a postsecondary credential, indicating a supply-and-demand gap for some occupations.²

The Colorado Department of Higher Education (CDHE) and the Colorado Commission on Higher Education (CCHE) set an ambitious goal that by 2025, 66 percent 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 furthers the commitment to the fourth goal—investing in affordability, cost containment and innovation—and outlines 18 actions that CDHE will take in collaboration with CCHE and institutions of higher education to help make college affordable. These actions are essential to ensuring more of Colorado's homegrown talent can access and succeed in postsecondary education.

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://mailchi.mp/2514d1e033df/news-releasessecond2020attainment?e=399f0ddc03>



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, in theory, near its educational-attainment goals through increased outreach and engagement of traditional-age students, such as high school graduates. If 100 percent of high school graduates attended and graduated from college, Colorado could meet the Lumina Foundation's goal of 60 percent postsecondary credential attainment by 2025.¹

Growing our own talent is pivotal, as projections show the number of people moving to Colorado will plateau over the next ten years. Over the years, Colorado has been successful at importing highly educated talent to meet workforce demands. In part due to this trend, Colorado's attainment rate is currently ten percentage points above the national average. Unfortunately, Colorado has not been as successful at educating its recent high school graduates; college-going rates are ten percentage points below the national average of 66.7%.² As fewer people move to Colorado, it is unlikely that Colorado will be able to reach its postsecondary attainment goal if the state does not focus on college-going and completion rates for native Coloradans.

- 1 Education Commission of the States (2016), [Free Community College: An approach to increase adult student success in postsecondary education](#).
- 2 The National Center for Education Statistics (2020). Digest of Education Statistics Table 302.10 Recent high school completers and their enrollment in college, by sex and level of institution: 1960 through 2017. https://nces.ed.gov/programs/digest/d18/tables/dt18_302.10.asp

In 2018, just short of 60,000 students graduated from a public Colorado high school. Though graduating from high school is a significant accomplishment, to compete in the current economy and achieve economic stability. These graduates need some sort of postsecondary degree or credential. The college-going rate for the class of 2018 is 56.6 percent, just slightly above the five-year average, which had remained stagnant. An additional 1.1 percent of students graduated high school with a postsecondary-recognized credential, for a total postsecondary success rate of 57.7 percent.¹

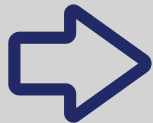
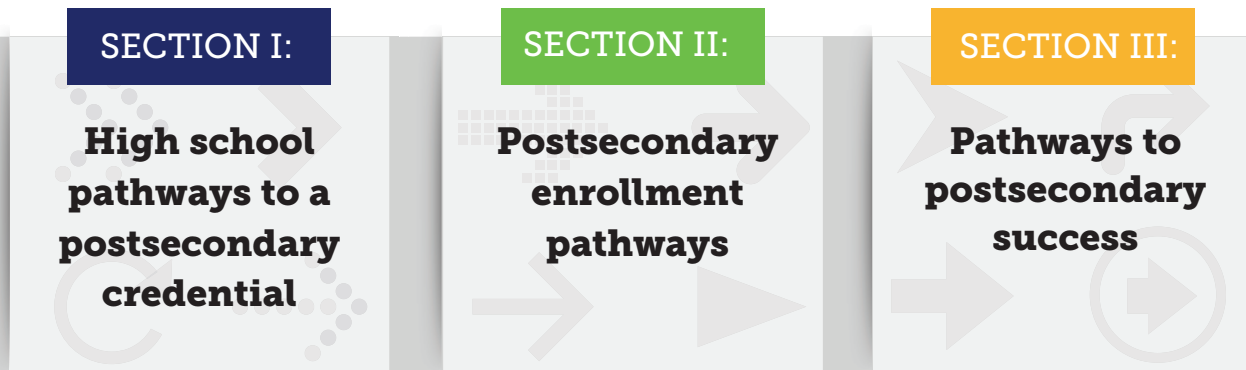
56.6 percent
of 2018 high school graduates enrolled in postsecondary education. 57.7% either went to college or graduated high school with a postsecondary credential.

In 2018, a total of 25,371 students graduated from high school without achieving a postsecondary-recognized credential or enrolling directly into postsecondary education. Five thousand of these students had demonstrated college-readiness in their junior year through their 11th grade SAT scores. Though some may have joined the military or entered a skilled apprenticeship program, many did not pursue a postsecondary pathway. If all these students had done so, the state’s college-going rate could have increased by almost 10 percentage points. Ensuring that prepared high school students are taking advantage of postsecondary opportunities after graduation is essential.

2020 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:



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

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

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

¹ Data Table 1 in Appendix 1.

SECTION I:

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 percent 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 post-secondary 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.



72 percent

of 2018 high school graduates enrolled in CTE courses at some point during high school.



53 percent

of 2018 high school graduates completed a CTE program. Students may receive either a postsecondary- or industry-recognized credential upon completion of or on the way to completing a CTE program.¹

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

Dual and Concurrent Enrollment

Colorado high school students can access postsecondary coursework in high school through both dual and Concurrent Enrollment programs. In Colorado, the term “dual enrollment” refers to the broad array of programs available to high school students that allow them to take college-level courses for credit. In contrast, Concurrent Enrollment (*capitalized in all usages*) refers only to the statewide programs detailed in the Concurrent Enrollment Programs Act (C.R.S. §22-35-101). Both programs allow students to receive college credit for courses taken while in high school. Colorado’s state-funded 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.



38 percent

of 2018 high school graduates participated in dual enrollment.



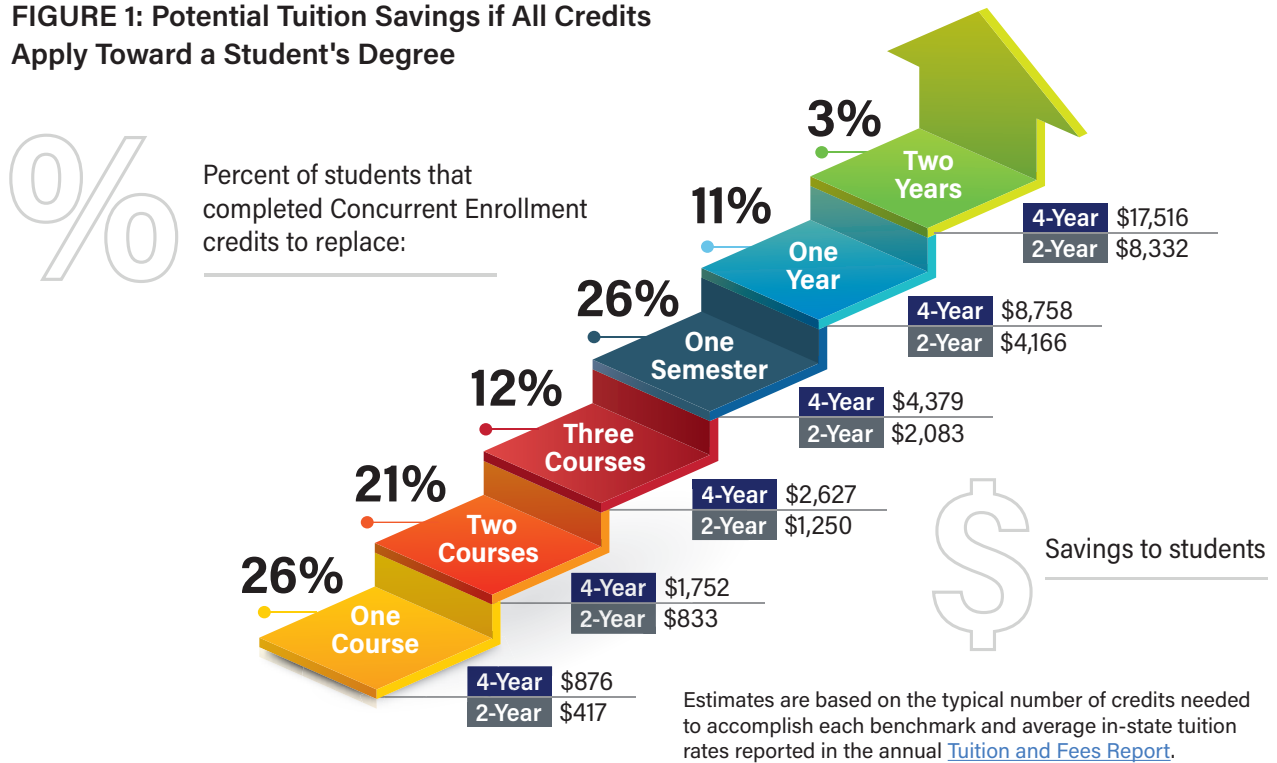
Over the last 10 years, the number of high school graduates who enrolled in dual enrollment has grown more than

200 percent.

Concurrent Enrollment

Eighty 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, 2018 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

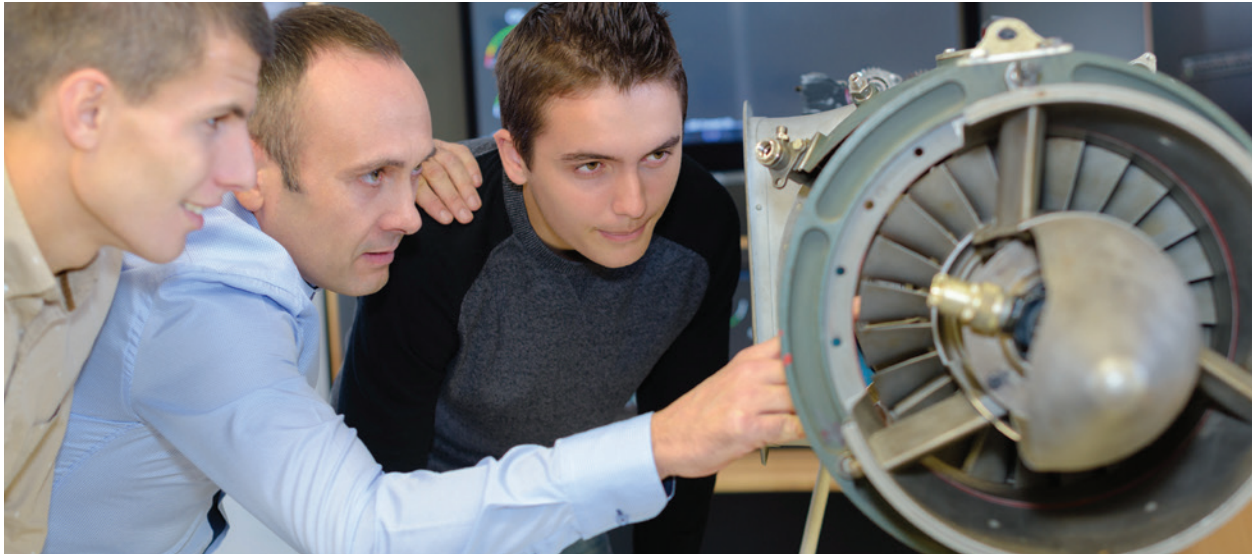


Research Continues to Grow on the Positive Impact of Concurrent Enrollment

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.

Learn more about Concurrent Enrollment Outcomes here:
<https://higherred.colorado.gov/concurrent-and-dual-enrollment>

¹ Estimated based on the average in-state tuition at the level of institution that a student attended (average tuition: https://higherred.colorado.gov/Publications/Reports/Budget/FY2020/2020_tuitionfeesreport.pdf).



Career Success Development Program

The Career Success Program was created by the legislature 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 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 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 different measures in admissions.



A total of
2,054
graduates

completed a credential in high school, representing 3.4 percent of 2018 high school graduates.



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

1,000 percent
over **10 years.**

Other Postsecondary Pathways

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

The **Advanced Placement Program**, administered by the College Board, allows students to take college-level coursework in high school and earn college credit by passing an end-of-year exam. In 2018, students took 90,343 total AP exams, 55,200 (61.1 percent) received a passing score. In 2019, Colorado high school students took a total of 92,208 AP exams, 56,571 (61.3 percent), received a score high enough to earn college credit at most colleges. This increase is due to efforts to encourage more students, especially those of traditionally underrepresented backgrounds, to take AP courses.

International Baccalaureate is an internationally-recognized program that allows students to take a series of college-level courses that culminate in a standardized assessments where students can earn college credit for a passing score. Currently, 34 high schools in Colorado offer International Baccalaureate programs. In 2018, Colorado students took 9,403 IB exams and received a passing score on 7,219 (77 percent) of these exams. In 2019 participation declined slightly. Students took 8,766 exams for a total of 6,417 passing scores (73 percent).

Scores Typically Required
for College Credit

AP
3


Some courses require 4.

IB
4 out of 7

In 2019 alone more than

63,000

AP and IB exams
were passed.

A young man with dark hair, wearing a dark plaid button-down shirt, is focused on working on the internal components of a laptop. He is leaning over a workbench, and his hands are visible as he handles a green printed circuit board (PCB). The background is slightly blurred, showing a workshop or classroom setting with a white metal frame. The lighting is bright and even, highlighting the details of the electronic components and the man's concentration.

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	Percent Change
American Indian or Alaska Native	72.40%	72.81%	66.16%	-8.61%
Asian	67.88%	69.72%	72.31%	6.53%
Black or African American	64.17%	63.85%	66.45%	3.55%
Hawaiian or Pacific Islander	62.86%	71.01%	68.75%	9.38%
Hispanic or Latinx	68.28%	68.64%	69.17%	1.30%
Two or More Races	71.36%	72.72%	72.92%	2.19%
White	73.64%	74.48%	74.28%	.87%

Male graduates are more likely than female graduates to participate in CTE, 74.6 percent compared to 69.6 percent. Fewer graduates who qualify for Free and Reduced Lunch (FRL) participate in CTE; 73.6 percent compared to 68.4 percent.¹ White students are the most likely to engage in CTE, and American Indian or Alaska Native and Black or African American students are least likely. The change in CTE participants between the graduating class of 2015 and 2018 is relatively similar across race/ethnicity, with a few notable exceptions: There is significant growth in the percentage of Asian graduates participating in CTE compared to other groups, and the percentage of Hispanic or Latinx and American Indian or Alaska Native has grown at a slower rate than average. There is a slight decline in participation by Hawaiian or Pacific Islander students. 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.

74.6 percent

compared to

69.6 percent

¹ Data Table 5 in Appendix 1.



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

41.8 percent
compared to
34.6 percent

Dual Enrollment by Race/Ethnicity Over Time

	2014	2015	2016	2017	2018	Percent Change
American Indian or Alaska Native	15.88%	22.64%	27.60%	27.66%	31.89%	100.84%
Asian	26.46%	30.41%	36.81%	42.14%	43.65%	64.95%
Black or African American	20.57%	31.08%	28.64%	34.00%	36.16%	75.81%
Hawaiian or Pacific Islander	26.67%	23.26%	26.43%	23.67%	28.47%	6.77%
Hispanic or Latinx	24.81%	29.29%	30.66%	32.32%	34.70%	39.84%
Two or More Races	25.22%	28.94%	33.04%	32.66%	37.38%	48.18%
White	26.64%	32.24%	34.83%	37.68%	40.12%	50.61%


Female graduates are more likely to graduate with dual enrollment than male graduates, at 41.8 percent and 34.6 percent, respectively. More than half (53.3 percent) of graduates who do not qualify for FRL participate in dual enrollment, compared to just 37.7 percent of graduates who do qualify. Growth in enrollment in dual credits is also slower for students whose families qualify for FRL.¹ Participation in the state's Concurrent Enrollment program mirrors these trends, reinforcing the importance of recent state efforts to broaden access to this program. The percent growth for American Indian or Alaska Native, Asian, and Black or African American students is more than 75 percent. In comparison, the percent growth in dual enrollment participation by Hispanic or Latinx graduates is 40 percent.

¹ Data Table 5 in Appendix 1.

Credential Attainment in High School by Race/Ethnicity Over Time

	2014	2015	2016	2017	2018	Percent Change
American Indian or Alaska Native	0.24%	1.00%	1.82%	2.13%	2.39%	906.94%
Asian	0.88%	1.67%	1.58%	2.34%	2.00%	126.47%
Black or African American	0.54%	1.09%	1.17%	1.33%	1.09%	104.15%
Hawaiian or Pacific Islander	1.48%	0.78%	2.14%	1.18%	4.17%	181.25%
Hispanic or Latinx	1.85%	2.65%	2.84%	2.58%	3.26%	76.86%
Two or More Races	1.49%	1.58%	2.55%	2.48%	2.77%	85.63%
White	1.81%	2.29%	2.66%	3.19%	3.85%	112.15%

Approximately 4 percent of female graduates completed high school with a postsecondary credential, compared to 3 percent of male graduates. Students who qualify for FRL are less likely to graduate with a postsecondary credential than those who do not qualify for FRL, 2.8 compared to 3.7.¹ Again between 2014 and 2018, all race and ethnic groups saw an increase in the percentage of graduates who received a postsecondary credential before graduating. The proportion of White, Hispanic or Latinx, and Hawaiian or Pacific Islander graduates that received a credential is above the state average. Only one percent of Black or African American students received a credential, which is two percentage points below the 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 recognize the credit that students receive through dual enrollment and 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:

Postsecondary Enrollment Pathways

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 56.6 percent. 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 was a strong relationship among 2018 high school graduates between participating in one of the college-pathways programs discussed in Section I and enrolling in a postsecondary institution. The relationship was 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	58.5%	54.4%
	Dual Enrollment	72.3%	46.9%
	Credential Attainment in High School	68.3%	56.2%

If an increasing number of students are participating in programs associated with postsecondary enrollment, it may be surprising that Colorado's college-going rate has not changed dramatically over the last decade. Demographics may explain this apparent disconnect. Over the past five years, every race and ethnic group has experienced an increase in college-going, except White students, students identifying as two or more races, and Hawaiian or Pacific Islander students. The other groups have seen, on average, an approximate eight percent growth in college-going. Colorado's American Indian or Alaska Native, Black or African American, and Hispanic or Latinx communities simply started at lower rates. As those populations make up a larger share of students, and as their college-going rates grow, the overall college-going rate stays relatively constant.

¹ Colorado Department of Higher Education (2019) Concurrent Enrollment 2017-2018 Academic Year.

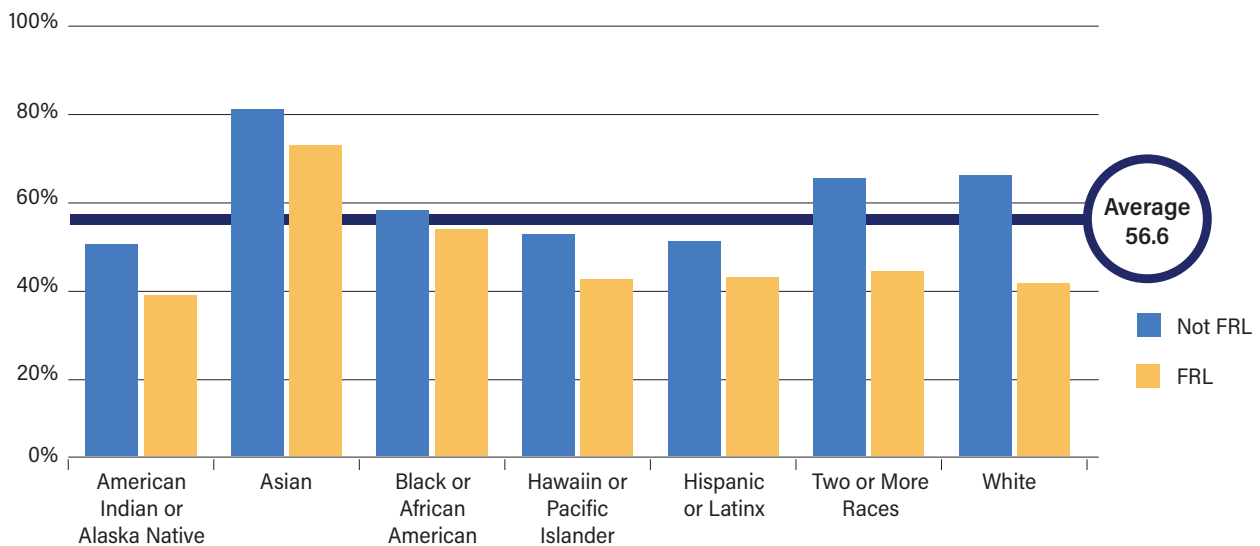
https://highered.colorado.gov/Publications/Reports/Enrollment/FY2018/2018_Concurrent_Enrollment_April_2019.pdf

College-Going Rate by Race/Ethnicity Over Time

	2014	2015	2016	2017	2018	Percent Change
American Indian or Alaska Native	40.52%	41.04%	41.93%	38.06%	43.82%	8.14%
Asian	72.71%	72.66%	75.00%	75.23%	79.00%	8.66%
Black or African American	51.44%	53.88%	53.01%	54.84%	55.08%	7.09%
Hawaiian or Pacific Islander	48.89%	41.09%	49.29%	43.20%	47.92%	-1.99%
Hispanic or Latinx	42.28%	43.64%	44.22%	45.79%	45.85%	8.44%
Two or More Races	58.88%	58.87%	58.53%	58.22%	59.14%	0.46%
White	61.61%	61.93%	60.72%	61.15%	61.42%	-0.32%

Figure 2 presents college-going rates by income and race/ethnicity. Students in the White and two or more races cohorts 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 lowest rates of any race or ethnicity. Low-income Black or African American students and Asian students are more likely to enroll in postsecondary education than low-income members of any of the other race/ethnicity groups any other income group besides Asians.¹

FIGURE 2: College-Going Rate by Race/Ethnicity and Income For 2018 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. 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.



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 3 on page 25 illustrates the many pathways that Colorado's high school class of 2013 has taken through the postsecondary system.

2013 High School Graduates Enrollment Choices in Fall 2013



**14
percent**

enrolled in a public
two-year institution



**27
percent**

enrolled in a public
four-year institution



**14
percent**

enrolled in a
private or out-of-
state institution

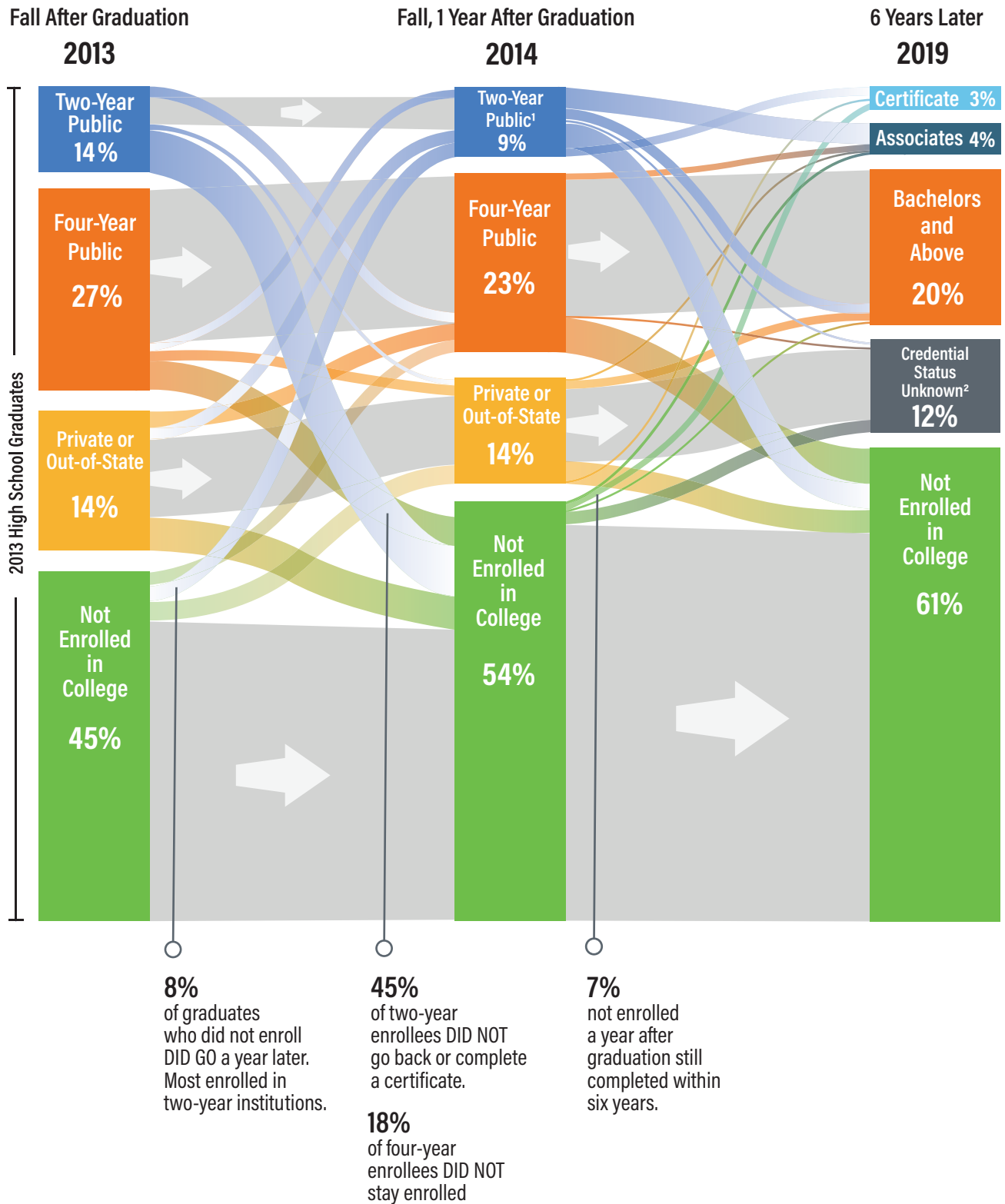


**45
percent**

did not enroll in
postsecondary
education

Students often move between education sectors over the course of their education. Figure 3 on page 25 shows the pathways that 2013 graduates took over six years.

FIGURE 3: Pathways of High School Graduates Through Postsecondary Education



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

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

The vast majority of Colorado’s high school graduates who go to college enroll in an in-state public college or university. For the 2018 graduating class, 72 percent attended an in-state public college or university. The majority of students who matriculate to college in the fall following high school graduation enroll in a four-year institution. For the 2018 class, 72.6 percent of fall college enrollees attended an in-state or out-of-state four-year institution.

This picture shifts when we look at students delaying enrollment into postsecondary education. When factoring in students who enroll in the fall or spring following their graduation year, the college-going rate increases an average of 7.5 percent. In the second year after graduation, the college-going rate increases an additional 3.2 percent on average. Students who delay enrollment, however, 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	%	%
2018	56.63%	27.37%	72.63%						
2017	56.36%	26.83%	73.17%	64.28%	61.48%	38.52%			
2016	55.80%	26.79%	73.21%	64.28%	62.04%	37.96%	68.03%	56.22%	43.78%
2015	56.55%	25.05%	74.95%	63.38%	63.66%	36.34%	66.22%	65.27%	34.73%
2014	55.95%	25.67%	74.33%	62.75%	64.96%	35.04%	65.74%	64.70%	35.30%

A larger percentage of Black and African American students delay enrollment than any other group of student. Additionally, students who qualify for FRL are more likely to delay enrollment. There is no difference by gender.

The number of high school students is declining nationally, as a result more Colorado students are being recruited to attend college out of state. Almost a quarter (24.7 percent) of high school graduates in 2018 attended an out-of-state college, up from 24 percent in 2017.

FIGURE 4: Out-of-State Enrollment

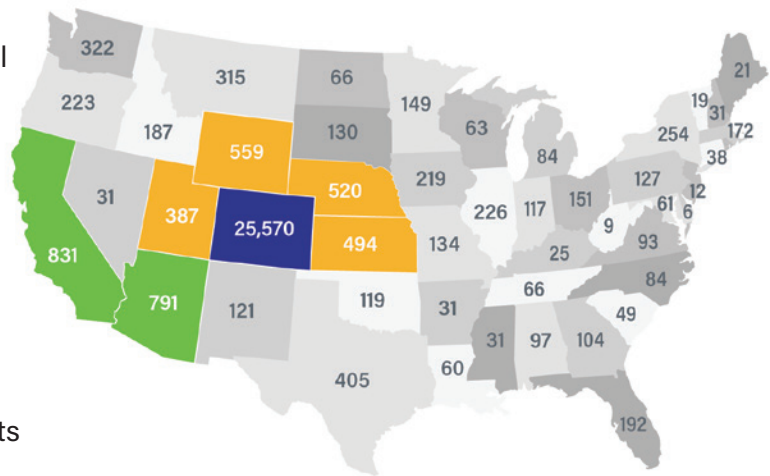
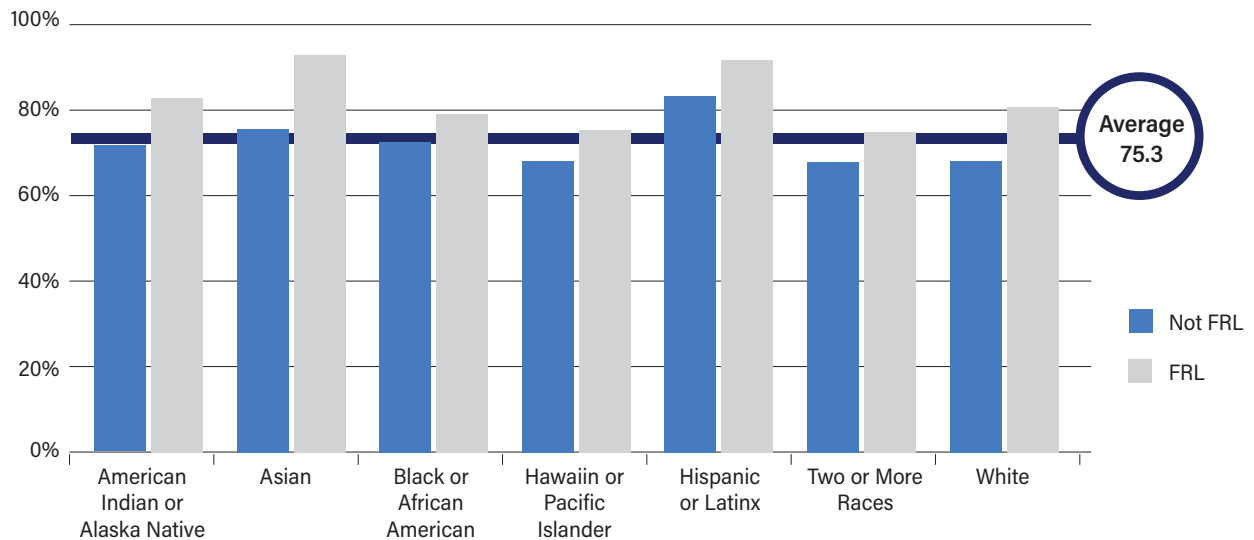


Figure 4 illustrates where high school graduates in Colorado enroll; students who enroll out of state are most likely to leave for institutions in California or Arizona. After these states, the greatest number of students leaving Colorado are choosing Nebraska, Wyoming and Kansas.

FIGURE 5: In-State Enrollment by Race/Ethnicity and Income



For all race and ethnic groups, 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.



Who Is Not Enrolling in College

Ensuring that more Coloradans access postsecondary education is essential to reaching the *Colorado Rises* 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 2018 a total of 25,371 high school graduates did not complete a credential in high school or enroll in a postsecondary institution. One-fifth of these graduates (5,433) demonstrated college-ready outcomes in both math and English during 11th grade on their SAT exams but did not go on to enroll in postsecondary education. Although some of these students may have enlisted in the military or delayed enrollment, these students and others who are on the cusp of college readiness are potential students for institutions to target for enrollment.

Ensuring that more Coloradans access postsecondary education is essential to reaching the *Colorado Rises* goals.

SECTION III:



Pathways to Postsecondary Success

As Figure 3 illustrates, graduates who enroll in postsecondary education do not always follow linear pathways. Instead, they may move across higher education institutions and between academic programs. Approximately 57.9 percent of 2013 high school graduates who enrolled in an in-state public institution attained a credential within six years. This marks the fifth 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 section of the report looks at how high school graduates who enroll the fall after graduation in an in-state public college (or a private institution that reports data) perform. Indicators of success 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 (3.3 percent) 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 2018

	All Students	Student with No Credential in High School	Student Receiving a Credential in High School
Certificate	3.0%	2.8% ²	6.1%
Associate Degree	30.0%	28.5%	38.1%
Bachelor's Degree or Beyond	67.0%	67.3%	52.3%

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. Approximately 30 percent of the class of 2018 who enrolled in an in-state institution and 50 percent of those who enrolled in two-year institutions chose a general liberal arts and sciences pathway initially. For students who enrolled at four-year institutions, 11 percent identified their major as biological and medical sciences, 10 percent identified engineering, and 9 percent identified business. 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.

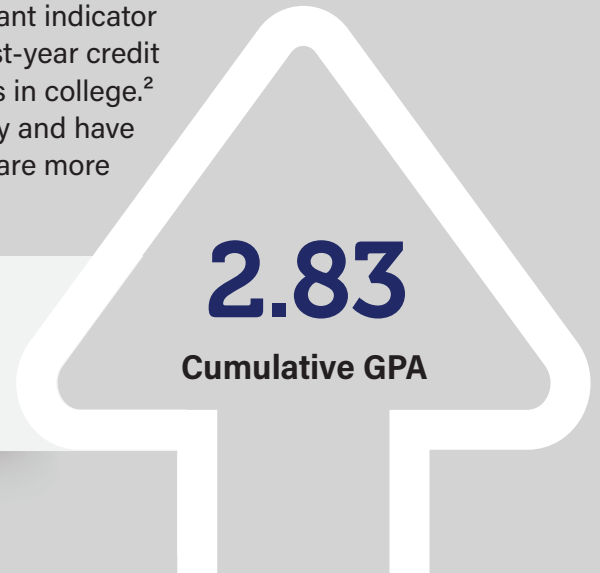
1 These credentials, often awarded through dual enrollment, may include CTE certificates, academic certificates or associate degrees.

2 Includes one- or two-year certificates offered at institutions that report data to the State Unit Record Data System (SURDS).

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 2018 and attended a Colorado institution was 2.83 on a scale of 4.0.



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 2018, the percent of students completing more than 30 credits is 49.4, up from 45 percent in 2014. The average credit accumulation in the first year of college for the class of 2018 was 32.2 credits.³

First-Year College Credit Accumulation for 2018 High School Graduates

82%
15 or More Credits

67%
24 or More Credits

49%
30 or More Credits

1 S. Stewart, D. H. Lum, and J. Kim (2015), [Factors Influencing College Persistence for First-Time Students](#), Journal of Developmental Education.
2 D. Jenkins and T. Baily (2017), [Early Momentum Metrics: Why They Matter for College Improvement](#), Community College Research Center.
3 Data Table 10 in Appendix 1. Averages do not include students who accumulated 0 credits; the first-year credit accumulation rates do.



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 seven 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 percent 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 address the needs of diverse students earlier in the education pipeline.¹

If Colorado is going to erase equity gaps in attainment, the state must address the 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 3 on page 25 illustrates this trend and helps us understand how students are moving through the system. First-year persistence rates reflect the number of students who enroll in the second year of their education either at the institution they enrolled in initially or at some other institution in the country. The table includes persistence and completion rates for students who enroll in a postsecondary institution as well as students who complete a certificate or degree by the following fall.

For the class of 2017,¹ 81.8 percent of students who enrolled in an in-state college that fall enrolled for a second year in fall 2018 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 2017 Colorado high school graduates who attended four-year institutions was 86.9 percent. Comparatively, the persistence rate for high school graduates who attended two-year colleges was 63.4 percent. When the number of students who received a degree or credential is included, it impacts community colleges that award one-year certificates. In Colorado, the persistence and completion rate for 2017 graduates at two-year institutions was 67.9 percent.

Persistence for High School Graduates of 2017

	Persistence	Persistence and Completion
Overall	80.3%	81.8%
Two-Year Institutions	63.4%	67.9%
Four-Year Institutions	86.9%	87.2%

Persistence Rates by Gender, Race/Ethnicity and Income

Persistence rates also reflect equity gaps. Females have a persistence rate four percentage points higher than males. The first-year persistence for American Indian or Alaska Natives is just 69.9 percent, for Hispanic or Latinx students it is 72.9 percent, and for Black or African American students it is 74.6 percent. Only 70 percent of students who qualified for FRL persist to the second fall semester, compared to 83.8 percent of students not eligible for FRL. To erase equity gaps in attainment, the state must ensure that low-income students and students of color 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).

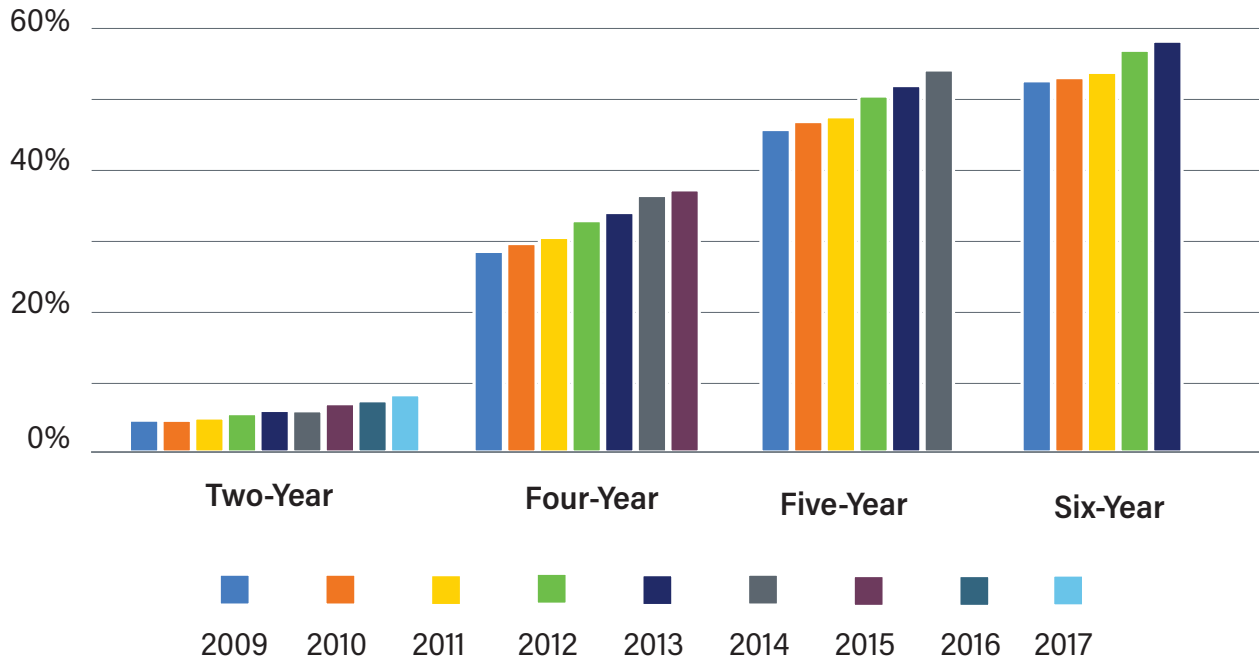
4 Data Table 14 in Appendix 1.

Credential Completion

Figure 6 offers a picture of how students move toward a credential over six years. For every 100 students who enroll in college, eight will complete in two years, 37 will completed in four years and 58 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 80 percent and the four-year completion rate has increased by 31 percent. 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, 37 will complete in four years and 58 will graduate in six years.

FIGURE 6: 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 and one of the lowest four-year completion rates of any 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 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.

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 2014 and 2015 College Enrollees

	2014 High School Graduates		2015 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	6.5%	40.6%	7.0%	40.7%
Male	5.0%	31.0%	6.6%	32.5%
Race/Ethnicity				
American Indian or Alaska Native	3.6%	24.1%	4.8%	19.0%
Asian	1.8%	35.7%	3.0%	37.8%
Black or African American	1.7%	20.9%	4.9%	21.0%
Hawaiian or Pacific Islander	7.5%	40.0%	5.7%	34.3%
Hispanic or Latinx	6.9%	28.1%	8.1%	29.4%
Two or More Races	5.0%	34.2%	5.1%	35.3%
White	6.0%	40.2%	6.9%	41.1%
Socio-economic Status				
No FRL	5.5%	38.3%	6.5%	39.7%
FRL	7.1%	26.6%	7.8%	27.2%

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.

In 2019 this report featured many of Colorado's efforts to assist students. CDHE operates the federally funded [GEAR UP](#) program, which gives more first-generation students access to college. 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](#), which pairs public and private funding to support students with scholarships as well as wraparound support services to promote college enrollment and success. In addition, Colorado just completed the Talent, Innovation and Equity grant work with the Lumina Foundation. This work led to the creation of an [equity toolkit](#) 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 2019 legislature passed two key bills that are helping to enhance existing postsecondary pathways:

CONCURRENT ENROLLMENT EXPANSION AND INNOVATION GRANT PROGRAM ACT

In May 2019, the Colorado Legislature approved and the Governor signed into law SB19-176, the Concurrent Enrollment Expansion and Innovation Grant Program Act. This act clarifies the differences between Concurrent Enrollment, dual enrollment and other programs. It ensures that Concurrent Enrollment credits can be applied to a CTE program or are transferable, and it directs agencies to create a website designed to help inform students and families about their Concurrent Enrollment options. The act also directs all school districts and education providers to provide Concurrent Enrollment and creates the Concurrent Enrollment Expansion and Innovation Grant Program to provide grants to local education providers to use in starting to offer Concurrent Enrollment or expanding the availability of Concurrent Enrollment. The implementation of this act will help grow and expand access to Concurrent Enrollment to high school students across Colorado.

DEVELOPMENTAL EDUCATION REFORM

Also in 2019, the legislature approved and the Governor signed into law HB19-1206, Concerning Removing Equity Gaps in Higher Education by Ensuring More Students Have Access to Supplemental Academic Instruction. This act requires institutions across Colorado to place the majority of students in college-level coursework and provide them with the academic supports they need, rather than requiring them to take non-credit courses. It also directs the CCHE to create a policy requiring institutions to use more than just a single test score to place students in developmental coursework, since high school GPA and other factors have shown to be better indicators of students' ability to complete college-level work. By moving away from traditional remediation practices, Colorado will eliminate structural barriers that historically preclude students of color and adult students from a fair chance at succeeding in higher education.

Still, there is more that Colorado can do to support students and strengthen pathways.

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, the College Board and My Colorado Journey to launch a direct admit campaign.

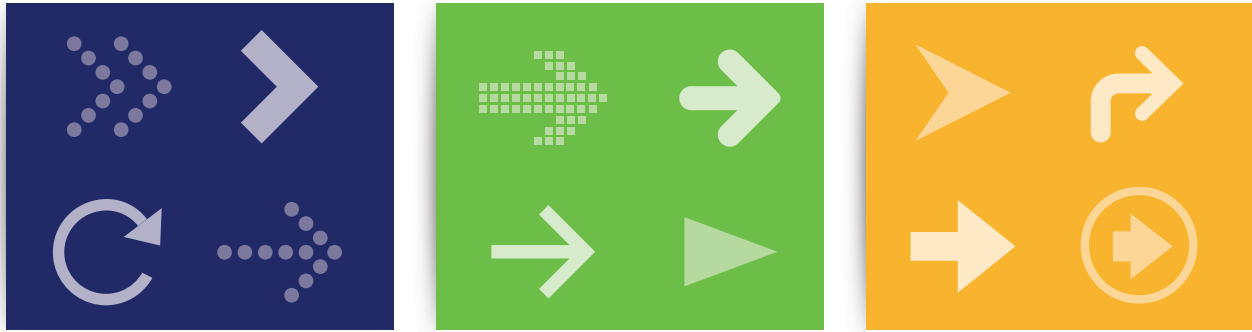
In this campaign, students who test at a certain college-ready threshold or who graduate with a Postsecondary and Workforce Readiness Endorsed Diploma¹ would receive a notification that they have qualified to be admitted to college. This notification would offer steps for how to complete the admissions process and enroll in college. My Colorado Journey is an innovative, online platform that could be leveraged that will allow students to execute this process, and provide students with additional information about college-options. In Idaho, a similar program helped increase college-going rates by 6.7 percent in just one year.

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, in partnership with the General Education Council who already oversees transfer pathways, should lead an effort to create a finite number of structured degree pathways.

The purpose of these pathways is to create more transparency and refine existing structures so that high school students in Concurrent Enrollment and college students who intend to transfer can make more informed course selections. Research shows that when people have too many options, they are more likely to make poor choices.¹ Florida State and Georgia State Universities have found that creating fewer, more structured degree pathways can have a dramatic impact on student success.² This effort should include an applied degree pathway for students in CTE programs, leading to an associate of applied science.

4

Develop an annual equity report for Colorado that examines student outcomes by different populations and task a state-wide body with addressing the inequities the report identifies.

This report will not only allow the CDHE to advance CCHE's goal to eliminate equity gaps but also ensure that there is high-quality data to inform decisions about how to address the needs of various populations in Colorado. Massachusetts has made equity a key focus of its performance measurement reporting system. This tool allows policymakers and the public to view key measures of college access and progress by race/ethnicity. But we must do more than just highlight the inequities. Which is why Colorado should also create a state-wide body tasked with addressing the inequities identified.

¹ <https://completecollege.org/wp-content/uploads/2017/08/Paradox-of-Choice.pdf>.

² http://www.uhcc.hawaii.edu/success/docs/exploratory/Meta-Majors07-05-2016-V2_0.pdf.

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://higher.ed.colorado.gov/pathways-to-prosperity-postsecondary-access-and-success-for-colorados-high-school-graduates>.

Contact Information

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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
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
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
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
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	Percent Change
CTE Enrollee						
Gender						
Female	N/A	N/A	68.94%	69.48%	69.64%	1.01%
Male	N/A	N/A	73.73%	74.47%	74.63%	1.21%
Socio-economic Status						
Non-FRL	N/A	N/A	72.33%	73.74%	73.58%	1.73%
FRL	N/A	N/A	68.90%	67.88%	68.43%	-.68%
Dual Enrollment						
Gender						
Female	28.13%	33.92%	36.37%	39.13%	41.77%	48.46%
Male	23.27%	28.23%	30.09%	32.36%	34.58%	48.61%
Socio-economic Status						
Non-FRL	26.37%	32.06%	34.87%	37.73%	40.44%	53.33%
FRL	23.55%	28.57%	29.39%	31.17%	32.43%	37.68%
Postsecondary Credential Prior to Graduation						
Gender						
Female	1.99%	2.72%	3.19%	3.47%	3.89%	95.32%
Male	1.42%	1.82%	1.98%	2.23%	2.96%	108.67%
Socio-economic Status						
Non-FRL	1.82%	2.27%	2.74%	3.03%	3.68%	102.88%
FRL	1.34%	2.30%	2.25%	2.45%	2.76%	105.45%

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
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
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 2018 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	30,055	61.83%	74.34%	73.36%
Male	29,940	51.40%	76.38%	71.75%
Race/Ethnicity				
American Indian or Alaska Native	461	43.82%	77.23%	70.30%
Asian	2,048	79.00%	79.60%	81.21%
Black or African American	2,832	55.08%	76.35%	66.67%
Hawaiian or Pacific Islander	144	47.92%	71.01%	69.57%
Hispanic or Latinx	18,658	45.85%	87.84%	58.72%
Two or More Races	2,127	59.14%	69.87%	77.03%
White	33,725	61.42%	69.97%	77.92%
Socio-economic Status				
No FRL	43,086	62.08%	71.96%	76.54%
FRL	16,909	42.74%	87.51%	58.16%

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

High School Graduation Year	FEMALE	MALE	No FRL	FRL
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
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
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 2018 College Enrollees*Sources: CDE, SURDS*

	Average GPA	Average Credits	% with 15 Credits or More	% with 24 Credits or More	% with 30 Credits or More
Gender					
Female	2.93	32.85	82.94%	67.95%	51.18%
Male	2.72	31.38	80.16%	65.28%	47.13%
Race/Ethnicity					
American Indian or Alaska Native	2.48	27.12	73.48%	56.06%	37.12%
Asian	2.95	35.75	87.56%	74.44%	57.63%
Black or African American	2.38	24.90	66.90%	44.97%	31.07%
Hawaiian or Pacific Islander	2.44	28.47	71.05%	52.63%	31.58%
Hispanic or Latinx	2.62	28.46	73.97%	55.31%	38.74%
Two or More Races	2.77	31.84	80.73%	67.97%	48.44%
White	2.96	34.19	86.09%	73.19%	55.22%
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
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 2018 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	82.01%	65.43%	88.27%	83.43%	69.86%	88.55%
Male	78.33%	61.19%	85.16%	79.84%	65.61%	85.51%
Race/Ethnicity						
American Indian or Alaska Native	69.89%	51.61%	79.03%	75.27%	67.74%	79.03%
Asian	88.51%	69.05%	93.12%	88.97%	71.43%	93.12%
Black or African American	74.64%	56.34%	82.26%	75.36%	58.45%	82.40%
Hawaiian or Pacific Islander	81.82%	63.64%	87.88%	84.09%	72.73%	87.88%
Hispanic or Latinx	72.92%	58.90%	81.40%	75.19%	64.09%	81.90%
Two or More Races	77.59%	57.73%	84.46%	78.91%	62.89%	84.46%
White	83.61%	67.34%	88.81%	84.82%	71.40%	89.11%
Socio-economic Status						
No FRL	83.82%	67.41%	89.10%	85.07%	71.62%	89.39%
FRL	70.05%	56.07%	78.78%	72.14%	60.89%	79.15%

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
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 Year1

% 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

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