



COLORADO COMMUNITY
COLLEGE SYSTEM

Colorado Community College System

**Academic Year 2016-17
Degrees Awarded**

Office of Institutional Research

NOVEMBER 2017



Academic Year 2016-17 Degrees Awarded

In academic year 2016-17, the Colorado Community College System (CCCS) awarded 20,893 degrees and certificates to students. The number of credentials awarded increased 5.2 percent over the 19,864 degrees and certificates awarded in academic year 2015-16. Increasing the number of degrees and certificates awarded is a key component of both the CCCS 2015-2025 Strategic Plan and the state higher education master plan. The 2016-17 increase of 5.2 percent means that CCCS exceeded its target of a one percent increase in the two years since the adoption of the strategic plan.

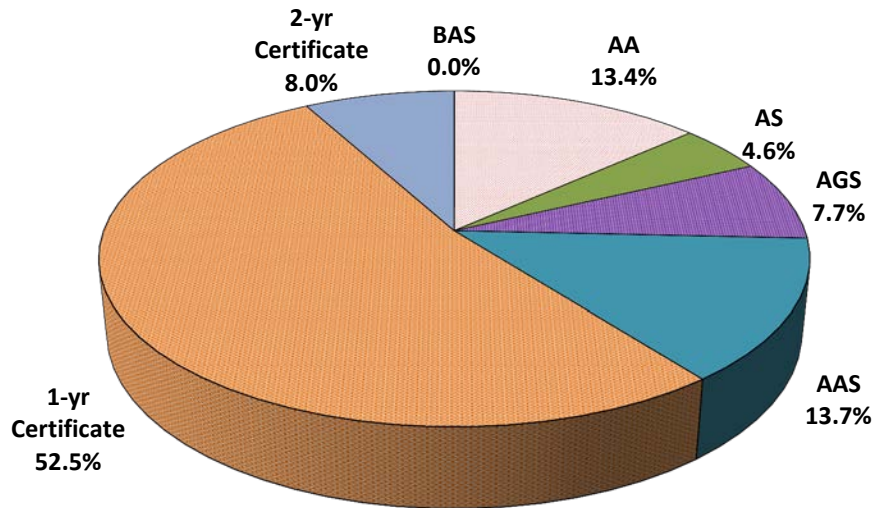
One-year certificates accounted for the largest proportion of awards at 52.5 percent and the greatest percentage increase among the award levels, at 12.8 percent. Associate of applied science and associate of arts degrees ranked second and third in the proportion of degrees awarded, at 13.7 percent and 13.4 percent, respectively. The first bachelor's degrees were awarded by a CCCS college in 2016-17, with four bachelor of applied science (BAS) degrees awarded by the Community College of Denver in dental hygiene.

Figure 1. Awards by Degree Level¹

Degree Awarded	Number of Awards, AY 2017	Award Level as % of Total	Change in Awards from AY 2016	Percent Change from AY 2016
Bachelor of Applied Science (BAS)	4	0.0%	4	N/A
Associate of Arts (AA)	2,798	13.4%	48	1.7%
Associate of Science (AS)	966	4.6%	-47	-4.6%
Associate of General Studies (AGS)	1,606	7.7%	61	3.9%
Associate of Applied Science (AAS)	2,869	13.7%	-183	-6.0%
1-yr Certificate	10,975	52.5%	1,248	12.8%
2-yr Certificate	1,675	8.0%	-102	-5.7%
CCCS Total	20,893	100.0%	1,025	5.2%

¹ Figure 1 provides distinct data for AA and AS degrees. For the remainder of the report, data on AA and AS degrees are combined, consistent with how they are submitted to the Colorado Department of Higher Education.

Figure 2. Degrees Awarded by Degree Level



The number of students who received a credential in academic year 2016-17 grew 3.3 percent, as 16,262 students received a credential compared to 15,736 last year. While some students earned multiple credentials, the majority (81.8 percent) earned one degree, as seen in Figure 3. On average, 1.3 credentials were awarded per student.

Figure 3. Number of Students Earning Degrees

	1 Award	2 Awards	3 Awards	4 Awards	5+ Awards	Total
Number of Students	13,296	2,050	530	191	195	16,262
% of Total	81.8%	12.6%	3.3%	1.2%	1.2%	100.0%

Degree within Reach. The Degree within Reach program contributed 440 AA/AS/AGS degrees to the number of credentials awarded by CCCS colleges in 2016-17. Under this program, students who transferred from a CCCS college to a Colorado university can combine credits from both institutions and apply them toward an associate degree. In 2016-17, Front Range Community College awarded the greatest number of associate degrees under this program (35 percent of the total), followed by Pikes Peak Community College (13.9 percent). Metropolitan State University of Denver accounted for the most



Degree within Reach students (23.2 percent), followed by the University of Colorado Denver (16.6 percent), Colorado State University (14.3 percent), and the University of Colorado Boulder (13.2 percent).

Figure 4. Degrees Awarded within Degree within Reach Program

College	No. of Degrees Awarded	Percent of CCCS Total	Top Degree within Reach College
ACC	48	10.9%	Metropolitan State University of Denver
CCA	51	11.6%	Metropolitan State University of Denver
CCD	34	7.7%	Metropolitan State University of Denver & University of Colorado Denver
CNCC	7	1.6%	Colorado Mesa University
FRCC	154	35.0%	Colorado State University
LCC	3	0.7%	Metropolitan State University of Denver, Colorado State University Pueblo, University of Colorado Colorado Springs
MCC	6	1.4%	University of Northern Colorado
NJC	4	0.9%	University of Northern Colorado
OJC	0	0.0%	
PCC	23	5.2%	Colorado State University Pueblo
PPCC	61	13.9%	University of Colorado Colorado Springs
RRCC	49	11.1%	University of Colorado Denver
TSJC	0	0.0%	
CCCS	440	100.0%	Metropolitan State University of Denver

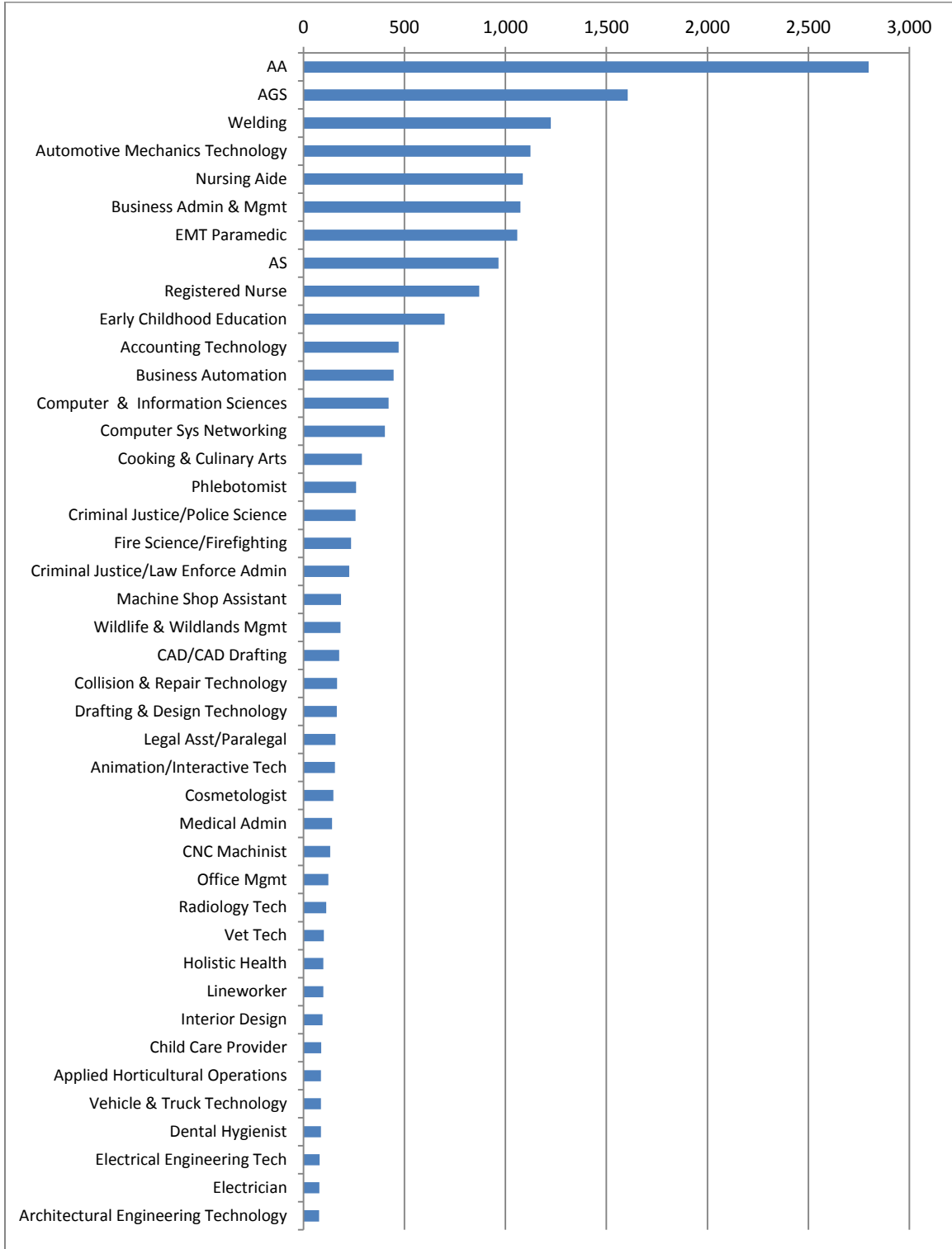
Programs. CCCS colleges awarded credentials in 148 instructional programs in 2016-17. Instructional programs are classified by CIP (Classification of Instructional Programs) codes. CIP codes were originally developed by the U.S. Department of Education’s National Center for Education Statistics to track and report on fields of study and program completions. Most CIP codes are associated with AAS and certificate programs. The associate of arts, associate of science, and associate of general studies degrees each have their own CIP code. Instructional programs in which 75 or more credentials were awarded are illustrated in Figure 5. The 42 programs with 75 or more credentials accounted for 87.8 percent of the credentials awarded by CCCS colleges in 2016-17.



The most popular instructional program was liberal arts, as exemplified by the number of AA degrees awarded: AA degrees comprised 13.4 percent of all credentials. General studies ranked second, with 7.7 percent of credentials awarded and welding third, with 5.9 percent of credentials.

Forty percent of AA degrees and eight percent of AS degrees included a major or “designation.” These transfer degrees are premised on agreements with four-year colleges that allow a student to graduate from a CCCS college with a 60-credit AA or AS degree, enroll with junior status at a Colorado university, and complete a bachelor’s degree in no more than an additional 60 credits, for a total of 120 credits. Business is the most popular major, with one-third of the designations in 2016-17, followed by psychology with 19 percent of the designations (AA and AS degrees), and criminal justice with 8.7 percent.

Figure 5. Instructional Programs with 75 or More Credentials



Growth in credentials awarded. In the past five years (2013-2017), credentials awarded at CCCS colleges increased 32.8 percent overall. However, the degree reporting methodology changed in 2014, allowing multiple credentials awarded to a student in the same program area and degree level to be counted separately rather than as one award. When comparing all years since this change (2014-2017), CCCS credentials awarded still grew by 22.2 percent (Figure 7).

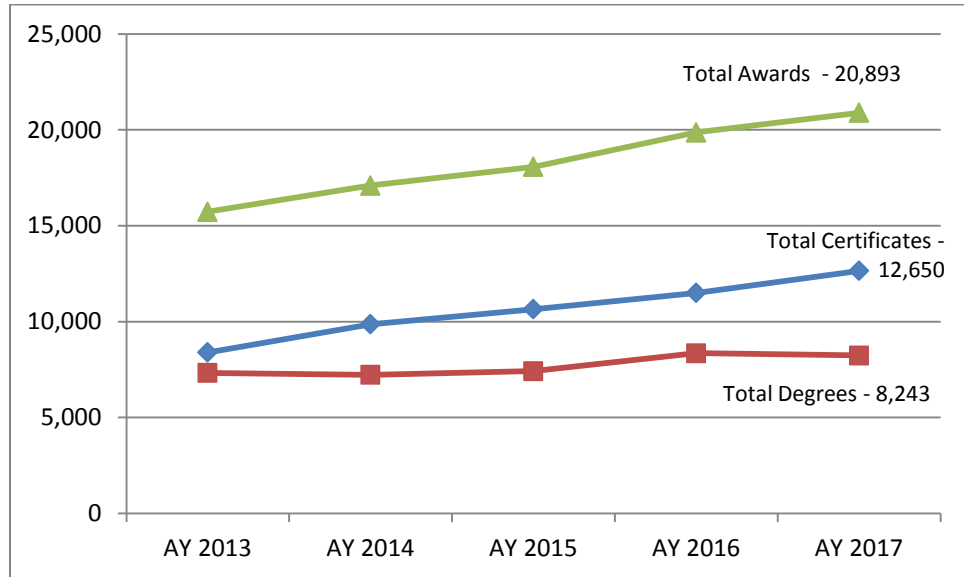
Figure 6. Awards by Degree Level

Level	AY 2013	AY 2014	AY 2015	AY 2016	AY 2017
1-yr Certificate	6,502	8,113	8,846	9,727	10,975
2-yr Certificate	1,895	1,751	1,803	1,777	1,675
Total Certificates	8,397	9,864	10,649	11,504	12,650
AAS	2,917	2,860	2,978	3,052	2,869
AGS	1,190	1,155	1,162	1,545	1,606
AA/AS	3,225	3,220	3,285	3,763	3,764
BAS	0	0	0	0	4
Total Degrees	7,332	7,235	7,425	8,360	8,243
Total Awards	15,729	17,099	18,074	19,864	20,893

Figure 7. Change in Awards Granted by Degree Level

Level	2013-2014	2014-2015	2015-2016	2016-2017	2013-2017	2014-2017
1-yr Certificate	24.8%	9.0%	10.0%	12.8%	68.8%	35.3%
2-yr Certificate	-7.6%	3.0%	-1.4%	-5.7%	-11.6%	-4.3%
Total Certificates	17.5%	8.0%	8.0%	10.0%	50.6%	28.2%
AAS	-2.0%	4.1%	2.5%	-6.0%	-1.6%	0.3%
AGS	-2.9%	0.6%	33.0%	3.9%	35.0%	39.0%
AA/AS	-0.2%	2.0%	14.6%	0.0%	16.7%	16.9%
BAS	N/A	N/A	N/A	N/A	N/A	N/A
Total Degrees	-1.3%	2.6%	12.6%	-1.4%	12.4%	13.9%
Total Awards	8.7%	5.7%	9.9%	5.2%	32.8%	22.2%

Figure 8. Colorado Community College System Awards, 2013 - 2017



By volume, the largest increase over the five-year span was in one-year certificates, with an increase of 4,473 certificates over the five years. One-year certificates had the largest increase over a four-year span as well (which takes into account the change in reporting methodology), with an increase of 2,862 awards. On a percentage basis, AGS degrees grew the most, with a 35 percent increase over the five years.

Career-oriented credentials. Three quarters of all credentials awarded in 2016-17 were career-oriented awards – certificates and AAS degrees. As was the case last year, the top one-year certificate was nursing aide, the top two-year certificate was criminal justice/police science, and the top AAS degree was registered nursing (Figure 9). Dental hygiene was the only BAS degree awarded.

Figure 9. Top Program Awards by Level (Excluding Liberal Arts and General Studies)

Award	2017 Number of Awards	2017 Awards as % of Award Level	Number Change from 2016	% Change from 2016
Top 1-Yr Certificate: Nursing Aide	1,086	9.9%	4	0.4%
Top 2-Yr Certificate: Criminal Justice/Police Science	222	13.3%	-18	-7.5%
Top AAS Degree: Registered Nurse	517	18.0%	-4	-0.8%
Top BAS Degree: Dental Hygiene	4	100.0%	4	N/A

The top five career-oriented programs accounted for 35.9 percent of all career-oriented credentials awarded. The top programs were welding, automotive mechanics technology, nursing aide, business administration and management, and emergency medical technology (Figure 10). The degree level for these program credentials can vary depending on the college; for example, emergency medical technology can be offered as an associate degree program and as certificate programs. The credit hours and types of programs required to receive awards can vary by institution as well.

Figure 10. Top Program Awards (Excluding Liberal Arts and General Studies)

Program	2017 No. of Awards	2017 Awards as % of Award Level
Welding Technology/Welder	1,225	7.9%
Automotive Mechanics Technology	1,124	7.2%
Nursing Aide	1,086	7.0%
Business Administration and Management	1,074	6.9%
Emergency Medical Technology (EMT Paramedic)	1,059	6.8%
Total of Top 5 Awards	5,568	35.9%

Of the career-oriented awards, 22.5 percent were in the health science cluster, compared to 24.5 percent in 2016 and 26.3 percent in 2015. The top five clusters accounted for 68.7 percent of all certificates awarded in 2016-17 and 60.3 percent of the overall

AAS/BAS total. Figure 11 displays information regarding the top career-oriented certificates awarded while Figure 12 focuses on AAS/BAS degrees.

Figure 11. Top Certificate Awards by Cluster – Percent of Total

Cluster	2017 Number of Certificates	% of Certificate Total	2016 Number of Certificates	% of Certificate Total
Health Science	2,984	23.6%	3,006	26.1%
Management and Administration	1,937	15.3%	1,745	15.2%
Manufacturing	1,668	13.2%	1,146	10.0%
Transportation, Distribution, & Logistics	1,357	10.7%	1,140	9.9%
Information Technology	743	5.9%	660	5.7%
Total	8,689	68.7%	7,697	66.9%

Figure 12. Top AAS/BAS Degree Awards by Cluster – Percent of Total

Cluster	2017 Number of Degrees	% of Degree Total	2016 Number of Degrees	% of Degree Total
Nursing/Registered Nurse	517	18.0%	521	17.1%
Health Science	506	17.6%	560	18.3%
Management and Administration	281	9.8%	281	9.2%
Arts, A/V Technology and Communication	215	7.5%	229	7.5%
Information Technology	212	7.4%	230	7.5%
Total	1,731	60.3%	1,821	59.7%

Demographic Summary

Race/Ethnicity. Students of color earned 28.7 percent of all awards granted in 2016-17 compared to 27.8 percent in 2016. In addition, 29.1 percent of award recipients were students of color, compared to 27.9 percent last year. White students comprised 65 percent of award recipients and 56.7 percent of the student body (Figure 13).

Figure 13. Award Recipients, Total Enrollment, and Awards by Ethnicity²

Race/Ethnicity	Award Recipients	System Enrollment	Number of Awards
Asian	2.8%	3.2%	2.7%
Black/African American	4.2%	5.8%	4.0%
Hawaiian/Pacific Islander	0.3%	0.3%	0.4%
Hispanic	17.5%	20.7%	17.3%
Multiple Races	3.4%	3.8%	3.4%
Native American/Alaska Native	0.9%	0.9%	1.0%
Non-resident Alien	1.9%	2.5%	1.9%
Unknown	4.0%	6.2%	4.0%
White	65.0%	56.7%	65.4%
Students of Color	29.1%	34.6%	28.7%

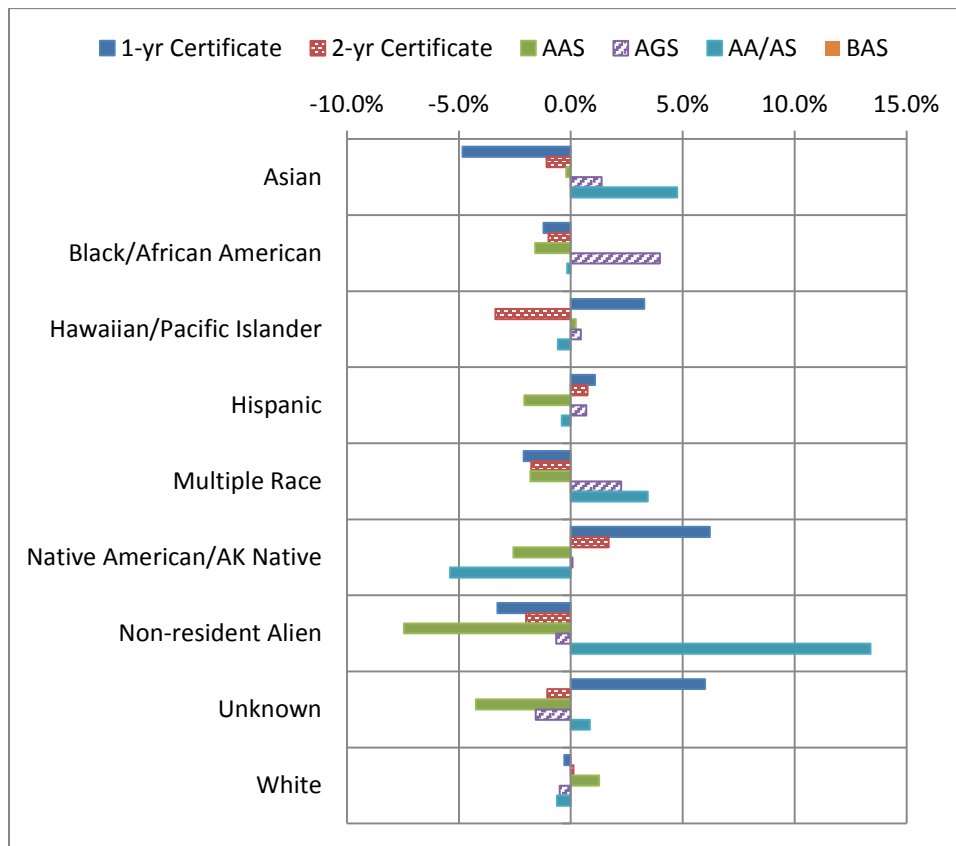
Figure 14 provides information on the distribution of credentials by degree level by race/ethnicity, while Figure 15 graphically illustrates how the distribution differs from the overall CCCS rates. These figures indicate that students of color were slightly less likely to earn AAS degrees and slightly more likely to earn AGS degrees than credential recipients as a whole. Also, international students and, to a lesser degree, students who did not report race/ethnicity were more likely to deviate from the overall CCCS distribution of credentials. However, credentials earned by international students and students of unknown race ethnicity comprised only 5.9 percent of credentials awarded.

² Students of color include Asian, Black/African American, Hawaiian/Pacific Islander, Hispanic, multiple race, and Native American/Alaska Native students.

Figure 14. Proportion of Credentials Earned by Race/Ethnicity and Degree Level

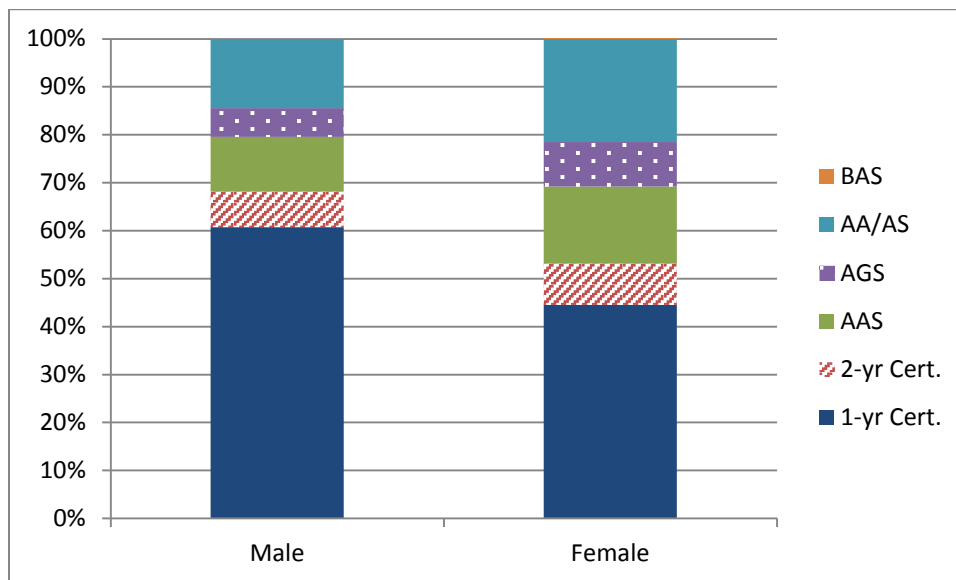
Race/Ethnicity	1-yr Certificate	2-yr Certificate	AAS	AGS	AA/AS	BAS
Asian	47.7%	6.9%	13.5%	9.1%	22.8%	0.0%
Black/African American	51.3%	7.0%	12.1%	11.7%	17.9%	0.0%
Hawaiian/Pacific Islander	55.8%	4.7%	14.0%	8.1%	17.4%	0.0%
Hispanic	53.6%	8.8%	11.6%	8.4%	17.6%	0.0%
Multiple Races	50.4%	6.3%	11.9%	9.9%	21.4%	0.0%
Native American/AK Native	58.7%	9.7%	11.2%	7.8%	12.6%	0.0%
Non-resident Alien (International)	49.2%	6.0%	6.3%	7.0%	31.4%	0.0%
Unknown	58.5%	7.0%	9.5%	6.1%	18.9%	0.0%
White	52.2%	8.1%	15.0%	7.2%	17.4%	0.0%
CCCS	52.5%	8.0%	13.7%	7.7%	18.0%	0.0%
Students of Color	52.6%	8.0%	11.9%	9.1%	18.4%	0.0%

Figure 15. Comparison of Racial/Ethnic Credential Awards to Overall CCCS



Gender. Females earned 50.7 percent of all credentials awarded in 2016-17 and comprised 55 percent of the students who were awarded a credential. Males averaged 1.4 credentials per recipient, while females averaged 1.2. Credentials earned by males were more likely to be career oriented than those earned by females: 79.5 percent of credentials earned by males were certificates and AAS degrees compared to 69.2 percent earned by females. Of the total career-oriented awards, 23.2 percent of female awards were AAS degrees compared to 14.3 percent for males. Thirty-one percent of credentials earned by females were AA/AS/AGS degrees, compared to 20.5 percent for males.

Figure 16. Proportion of Awards by Gender and Degree Level



Welding was the top credential program for males, garnering 11 percent of total credentials received by males, whereas liberal arts and its corresponding associate of arts degree was the top program and credential for females, with 16.7 percent of the total.

Figure 17. Award Recipients and Overall Enrollment

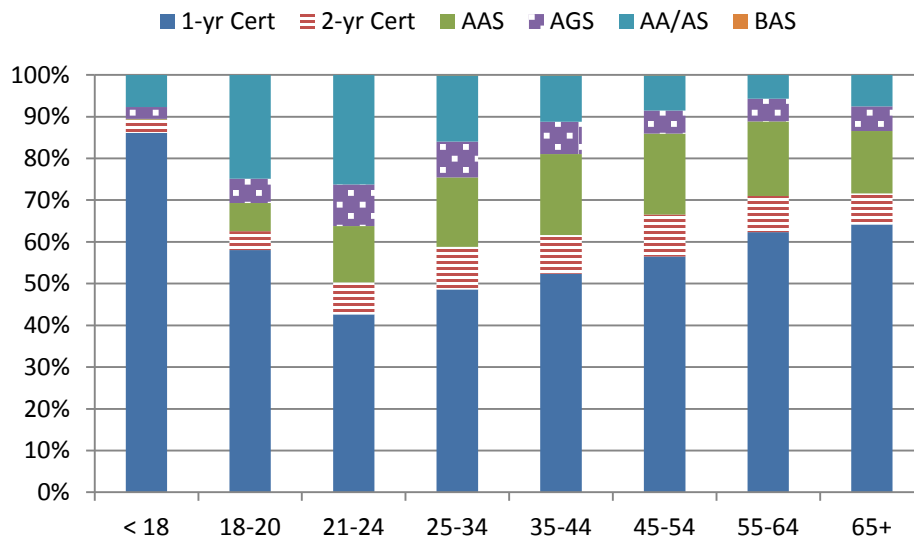
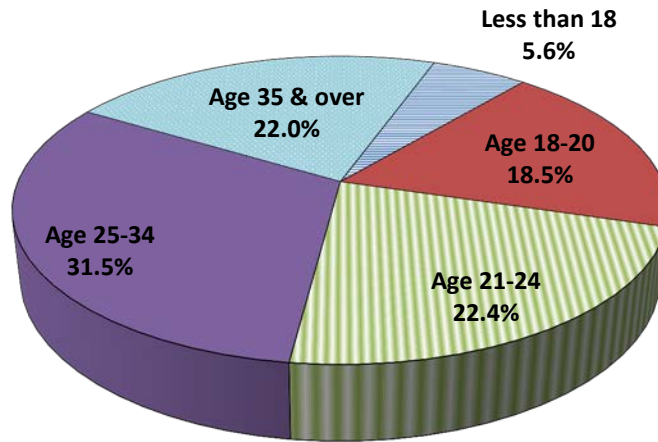
Top Five Programs by Gender	% of Total Awards	Number of Awards
Males: Top 5 Program Credentials		
Welding Technology	11.0%	1,129
Automotive Mechanics Technology	10.1%	1,039
AA	10.0%	1,028
Emergency Medical Technology	6.2%	636
AGS	6.0%	621
Males: Total of Top Five	43.3%	4,453
Females: Top 5 Program Credentials		
AA	16.7%	1,769
AGS	9.3%	985
Nursing Aide	9.1%	961
Registered Nursing	7.4%	782
Early Childhood Education and Teaching	6.4%	680
Females: Total of Top Five	48.9%	5,177

Age. Students between the ages of 18 and 24 earned almost 41 percent of the credentials awarded in 2016-17, while students in the 25 to 34 age group earned 31.5 percent of the total (Figure 18). The median age of a student who earned a credential was 25.

Figure 18. Awards by Degree Level and Age Category

Degree Level	< 18	18-20	21-24	25-34	35-44	45-54	55-64	65+
1-yr Certificate	9.2%	20.4%	18.2%	29.1%	12.9%	6.7%	3.0%	0.4%
2-yr Certificate	2.3%	10.6%	21.4%	40.1%	14.9%	7.8%	2.7%	0.3%
AAS	0.1%	9.1%	22.0%	38.2%	18.2%	8.7%	3.3%	0.3%
AGS	2.1%	13.9%	29.2%	35.1%	13.1%	4.5%	1.8%	0.2%
AA/AS	2.4%	25.5%	32.6%	27.8%	8.0%	2.9%	0.8%	0.1%
BAS	0.0%	0.0%	0.0%	50.0%	25.0%	25.0%	0.0%	0.0%
Total	5.6%	18.5%	22.4%	31.5%	12.9%	6.2%	2.5%	0.3%

Figure 19. Awards by Age Category



College Summary

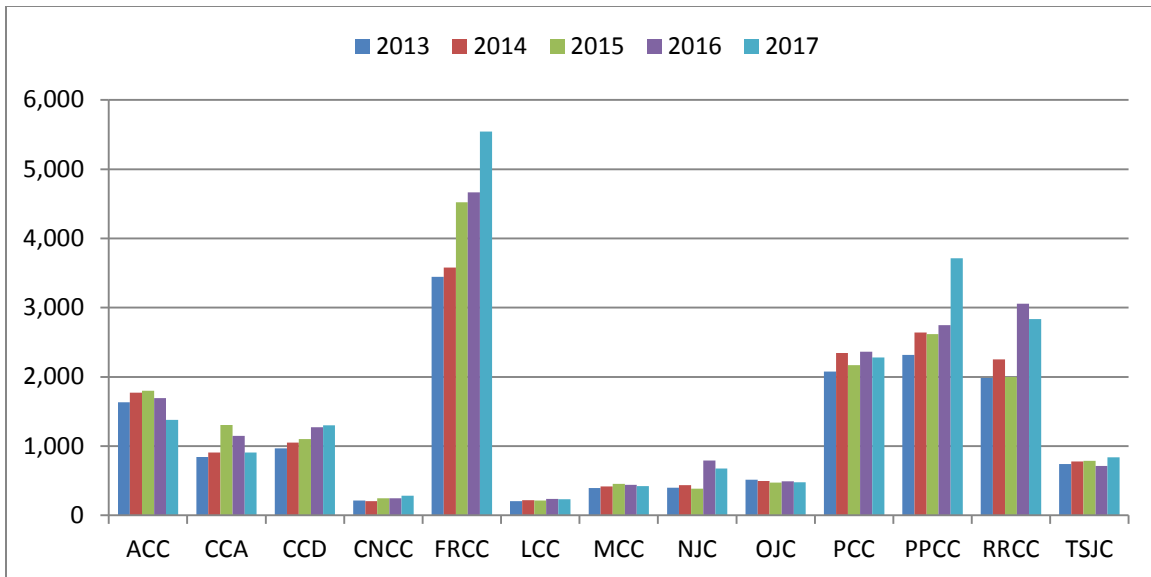
Front Range Community College distributed the most awards, accounting for 26.5 percent of all system awards in 2016-17. It was followed by Pikes Peak Community College, which distributed 17.8 percent of all awards in the academic year. Both colleges also had significant increases in the number of credentials awarded: Pikes Peak Community College had the most overall with a 35.2 percent increase in awards; Front Range Community College had the second most with an 18.8 percent increase in awards; and Trinidad State Junior College had the third most with a 17.3 percent increase. Figure 20 lists each college with the proportions of degree levels awarded in 2016-17 and its contribution to the overall total of CCCS awards, while Figure 21 presents a five-year history of the number of degrees by college.

Figure 20. Percentage of Awards by College and Level

College	Certificates	AAS	AGS	AA-AS	BAS	AY 2017 Total Awards	% of Total CCCS Awards
ACC	45.8%	28.4%	7.5%	18.2%	0.0%	1,378	6.6%
CCA	38.4%	17.9%	13.2%	30.5%	0.0%	909	4.4%
CCD	42.4%	13.7%	7.8%	35.8%	0.3%	1,299	6.2%
CNCC	46.3%	22.6%	3.2%	27.9%	0.0%	283	1.4%
FRCC	65.8%	9.6%	4.8%	19.9%	0.0%	5,545	26.5%
LCC	46.4%	18.5%	12.9%	22.3%	0.0%	233	1.1%
MCC	54.5%	13.9%	7.3%	24.3%	0.0%	424	2.0%
NJC	59.5%	14.5%	5.9%	20.0%	0.0%	674	3.2%
OJC	56.9%	10.7%	2.5%	29.9%	0.0%	478	2.3%
PCC	68.2%	17.0%	6.5%	8.3%	0.0%	2,282	10.9%
PPCC	55.4%	15.0%	14.5%	15.1%	0.0%	3,713	17.8%
RRCC	76.4%	8.6%	3.9%	11.1%	0.0%	2,836	13.6%
TSJC	65.4%	12.2%	11.2%	11.2%	0.0%	839	4.0%
Total	60.5%	13.7%	7.7%	18.0%	0.0%	20,893	100.0%

Figure 21. Number of Awards by College, 2013 through 2017

College	2013	2014	2015	2016	2017	% Chg: 2016 - 2017	% Chg: 2013 - 2017
ACC	1,632	1,772	1,801	1,691	1,378	-18.5%	-15.6%
CCA	842	908	1,304	1,149	909	-20.9%	8.0%
CCD	967	1,050	1,100	1,270	1,299	2.3%	34.3%
CNCC	212	203	245	247	283	14.6%	33.5%
FRCC	3,444	3,581	4,522	4,666	5,545	18.8%	61.0%
LCC	206	217	216	235	233	-0.9%	13.1%
MCC	396	418	454	439	424	-3.4%	7.1%
NJC	400	437	386	790	674	-14.7%	68.5%
OJC	514	498	471	493	478	-3.0%	-7.0%
PCC	2,076	2,345	2,171	2,365	2,282	-3.5%	9.9%
PPCC	2,319	2,639	2,619	2,747	3,713	35.2%	60.1%
RRCC	1,982	2,254	2,000	3,057	2,836	-7.2%	43.1%
TSJC	739	777	785	715	839	17.3%	13.5%
CCCS	15,729	17,099	18,074	19,864	20,893	5.2%	32.8%





The top career-oriented awards per college (excluding liberal arts and general studies) are listed in Figure 22.

Figure 22. Top Career-oriented Program Awards by College

College	Program	Number of Awards	Percent of College Total
ACC	Nursing Aide	146	14.3%
CCA	Emergency Medical Technology	91	17.8%
CCD	Nursing Aide	167	22.8%
CNCC	Nursing Aide	39	20.0%
FRCC	Welding Technology and Business Administration & Management (tie)	1,262	30.2%
LCC	Registered Nursing	48	31.8%
MCC	Nursing Aide	75	25.9%
NJC	Vehicle & Truck Technology and Automotive Mechanics Technology (tie)	172	34.5%
OJC	Nursing Aide	45	13.9%
PCC	Business Automation	445	22.9%
PPCC	Registered Nursing	312	11.9%
RRCC	Business Administration & Management	253	10.5%
TSJC	Lineworker and Automotive Mechanics Technology (tie)	196	30.1%
CCCS	Welding Technology	1,225	7.9%

High School Awards

Of the credentials awarded in 2016-17, 9.2 percent were earned by high school students. Of these, 78.1 percent were one-year certificates (Figure 23). Credentials were awarded in 52 instructional program codes. The top programs for high school awards were nursing aide and welding, which accounted for 16.5 percent and 15.6 percent of awards, respectively.

Figure 23. High School Awards by Degree Level

Degree Level	2016-17 Awards	% of Total	2015-16 Awards	% Change 2016 - 2017
1-yr Certificate	1,499	78.1%	1,144	31.0%
2-yr Certificate	76	4.0%	62	22.6%
AAS	16	0.8%	19	-15.8%
AGS	66	3.4%	41	61.0%
AA/AS	263	13.7%	239	10.0%
Total	1,920	100.0%	1,505	27.6%

A total of 1,920 awards was earned by 1,612 students. Though the vast majority of high school students earned one award (82.9 percent), some earned more than one credential. Figure 24 contains a breakdown of award recipients in high school and how many awards they earned in 2016-17.

Figure 24. High School Award Recipients

	1 Award	2 Awards	3 Awards	4 Awards	5 Awards	Total
Number of Students	1,336	251	20	3	2	1,612
% of HS Award Recipients	82.9%	15.6%	1.2%	0.2%	0.1%	100.0%

Data Sources

The data for this report was extracted from SURDS degree and enrollment files submitted by CCCS institutions to the Colorado Department of Higher Education.