

Gap Tuition Assistance Program: Student Outcomes

Cohorts AY 2015-AY 2019

Released July 2021



COMMUNITY COLLEGES &
WORKFORCE PREPARATION



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Helping Bridge Tuition Shortfalls for Iowans with Barriers to Training

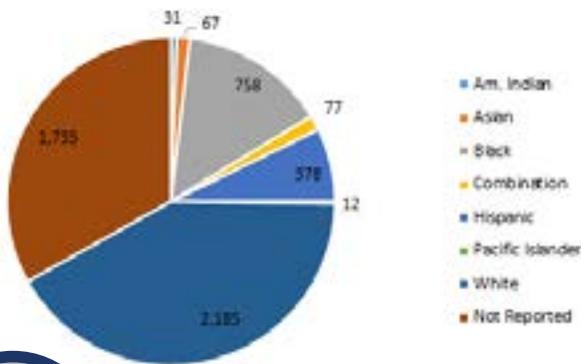
The Gap Tuition Assistance Program provides funding to community colleges to support non-credit job training programs. Eligible continuing education certificate programs, directly aligned with in-demand occupations, are eligible for Gap assistance to bridge tuition shortfalls for Iowans with barriers to training.



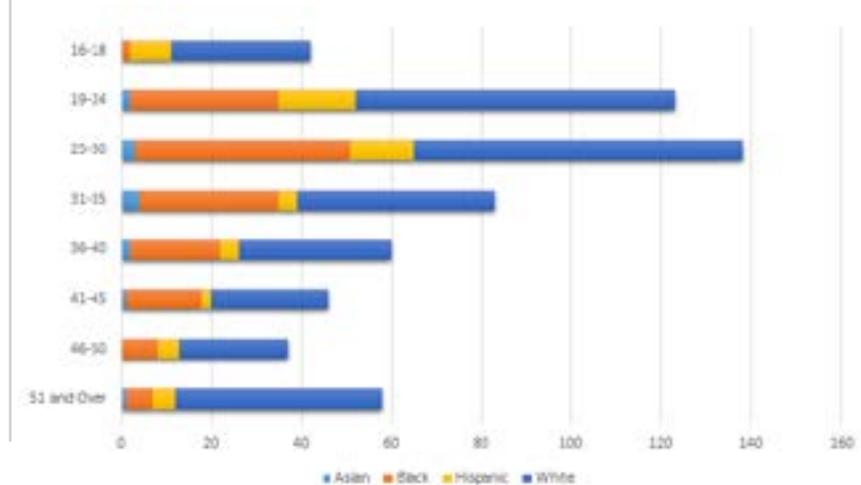
2015-2019 Summary

Demographics

5,243 students
2,284 male students; 2,774 female students
185 did not report gender



Student Age by Race



Gap Program Enrollment

The majority of students in Gap programs enroll in courses directly related to the state's in-demand occupations.

Gap Enrollment by the Top 10 Program Types

Program	2015 to 2019 Enrollment
Nursing Assistant/Aide and Patient Care Assistance/Aid	2,524
Truck and Bus Driver/Commercial Vehicle Operator	1,647
Welding Technology/Welder	814
Business/Office Automation/Technology/Data Entry	320
Allied Health and Medical Assisting Services	313
Family and Consumer Sciences/Human Services	254
Phlebotomy Technician/Phlebotomist	246
Emergency Medical Technology/Technician (EMT Paramedic)	216
Health Diagnostic, Intervention and Treatment Professions	165
Transportation and Materials Moving	148





Gap Program Outcomes Measured One Year Following Completion

Following completion of an approved Gap program, participants were analyzed to determine the impact of wages and employment following their training using employment data from the year following completion. Of the 5,243 participants who completed a Gap approved program during the academic years 2015 through 2019, 1,495 participants were employed in the same industry prior to their training and following their training, 1,470 participants who were employed in a different industry following their completion and there were 812 participants who were previously unemployed who became employed following completion of their training. The overall employment percentage, excluding those who went on to continue their education (N=742) was 80.0 percent.

Employment Status and Earnings Prior to and Following Gap Program Completion

	Retained Employment	New Employment	Employment Percentage	Percent Continued Education
Gap Students	2,965	812	80.0%	14.2%



Enrollment in Credit-Bearing Programs

Nearly one-fourth (14.2 percent) of Gap students continued their credit-bearing education following completing their noncredit program. Most of this group continued their education at one of Iowa's community colleges (571), a few transferred to a community college in another state (44) and 17.1 percent (127) transferred to a 4-year college. The average of those who continued their education was 29 years of age which is older than the overall student population reported in credit programs for the academic year 2019 (as an example), which was 21.6 years of age. The



The highest number of those who had transferred into credit-bearing programs transferred as liberal arts students (253). However, there were also students who continued their education in the registered nursing program (104) in addition to other health related programs such as dialysis technology, phlebotomy technology, and medical insurance coding.

Introduction

The Gap Tuition Assistance Program (Gap) was established in 2013 and is currently funded through the Iowa Skilled Worker and Job Creation Fund (Iowa Code 260.I). This program provides funding to community colleges to support noncredit job training programs. Eligible continuing education certificate training programs directly aligned with in-demand occupations are eligible for Gap assistance to bridge tuition shortfalls for Iowans with barriers to training.

This longitudinal report provides an overview of the demographics, enrollment, completion, and employment outcomes of participants in Gap for academic years (AY) 2015 through AY 2019.



Program Guidance

Eligible Costs

Costs eligible for coverage under the Gap Tuition Assistance Program include, but are not limited to, the following:

- tuition;
- direct training costs;
- required books and equipment;
- fees including, but not limited to, industry testing services and background check testing services;
- program staffing.

Staffing and support costs are capped at 10 percent of allocated funds for the two largest community colleges (Des Moines Area and Kirkwood Community Colleges); 20 percent for the two smallest community colleges (Southwestern and Northwest Iowa Community Colleges); and 15 percent for the remaining community colleges.

Eligibility of Applicant

Eligibility for tuition assistance under this program is based on financial need which is determined by an assessment of a variety of criteria including, but not limited to:

- the applicant's family income for the three months prior to the date of application or documentation of a life-changing event;
- the applicant's family size; and
- the applicant's county of residence.

An applicant must also have a demonstrated capacity to achieve the following outcomes in order to be eligible for tuition assistance:

- the ability to complete an eligible certificate program;
- the ability to enter a postsecondary certificate, diploma or degree program for credit;
- the ability to gain full-time employment; and
- the ability to maintain full-time employment over time.

Applicants for the program can be eligible for partial or total tuition assistance. Only applicants eligible to work in the United States are approved for tuition assistance under this program. A person can only be approved and receive tuition assistance in one of the eligible certificate programs and cannot receive additional assistance if they are enrolled in more than one of the eligible certificate programs. Individuals earning incomes at or below 250 percent of the federal poverty level, as defined by the most recently revised poverty income guidelines published by the United States Department of Health and Human Services, shall be eligible to receive assistance under Gap.

Programs

Programs that meet the following criteria shall be eligible for assistance:

1. Programs are not offered for credit, but are aligned with a certificate, diploma or degree for credit, and do any of the following:
 - offer a state, national or locally recognized certificate;
 - offer preparation for a professional examination or licensure;
 - provide endorsement for an existing credential or license;
 - represent recognized skill standards defined by an industrial sector; or
 - offer a similar credential or training.

2. Programs offer training or credentials that prepare workers for in-demand occupations in one of the following industries:
 - Information technology;
 - Health Care;
 - Advanced Manufacturing; or
 - Transportation and Logistics
 - any other industry designated as in-demand by a regional advisory board.

See the [Gap Tuition Assistance Program webpage](#) for a complete list of approved programs.

Process

Applicants for tuition assistance under Gap are required to complete an initial assessment administered by the community college receiving the application to determine the applicant's readiness to complete an eligible certificate program. The assessment shall include the areas of reading and mathematics. In assessing an applicant, a community college shall use the national career readiness certificate, or an assessment eligible under the Adult Education and Family Literacy Act, 20 U.S.C. Ch 73, and approved by the department for use in an adult education and literacy program. An applicant shall complete any additional assessments and occupation research required by the gap tuition assistance program or an eligible certificate program, or both. Next, applicants are required to meet with a community college staff member to learn about eligible and available certificate programs, the relevant industries, applicable occupational research and any applicable training related to the eligible certificate programs.

The process includes an evaluation of the applicants' capabilities, needs, family situation, work history, educational background, attitude, motivation, employment skills, vocational potential and employment barriers. Following this initial discussion, potential start dates, support services, and other requirements for an eligible certificate program are identified and determined.

Responsibility

A participant in an eligible certificate program who receives tuition assistance will be required to do all of the following:

- Maintain regular contact with staff members from the certificate program to document the applicant's progress in the program;
- Sign a release form to provide relevant information to community college faculty or case managers;
- Discuss with staff members from the certificate program any issues that may impact the participant's ability to complete the certificate program, obtain employment, and maintain employment over time;
- Attend all required courses regularly; and
- Develop a job search plan with staff members from the certificate program.

Outcomes

In order to properly conduct the outcomes research for this report, all participant data were extracted from the Management Information System (MIS) using an indicator for Gap participation provided by Iowa's fifteen community colleges.

Five cohorts representing AY 2015 through AY 2019 were identified from data extracted out of the MIS. These annual cohorts were then sent to the National Student Clearinghouse (NSC) to identify the students who continued their education after completing their program of study. Participants may have transferred from one community college to another, continued their education at their current location

or transferred to a four-year institution. Transfer students were analyzed by college type (two-year or four-year, and private or public) and by transfer location, allowing for the study of graduate out-migration (leaving Iowa).

Those who did not continue their education were identified as a separate cohort and were then unduplicated and matched to Unemployment Insurance (UI) wage records* using the students' Social Security Numbers (SSN) to find if they entered employment. This match provided employment, wage and industry data by quarter for each award type and cohort.

Quarterly wages are reported using the following time frames:

Quarter 1: January 1 to March 31

Quarter 2: April 1 to June 30

Quarter 3: July 1 to September 30

Quarter 4: October 1 to December 31

Due to the confidentiality and nature of wage records and student-level data, strict limits were in place for minimum number of records that could be reported in aggregate to follow all applicable rules, regulations, and restrictions for each of the data sources mentioned. Additionally, data-sharing agreements went through comprehensive legal review.

**The UI wage records do not cover those employers exempt from paying UI tax such as federal employees, members of the armed forces, the self-employed, proprietors, unpaid family workers, church employees, railroad workers covered by the railroad unemployment insurance system and students employed in a college or university as a part of a financial aid package. Matches of three or less are suppressed for confidentiality purposes.*



Demographics

Identification of race/ethnicity or gender are not required fields in the data submitted to the Department of Education. There was a total of 5,243 Gap participants in this five-year study period: 1,284 in the AY 2015, 1,085 in AY 2016, 907 in AY 2017, 1,061 in AY 2018 and 906 in AY 2019. There were 1,735 students (33.1 percent) who did not report their race/ethnicity. Of the remaining 3,508 students, 2,185 reported their race as white representing 62.3 percent of all students who reported their race/ethnicity. There were 758 (34.7 percent) black students, 378 (17.3 percent) Hispanic students, 77 (3.5 percent) students who reported having a combination of race/ethnicity, 67 (3.1 percent) Asian students, 31 (1.4 percent) American Indian and 12 (0.5 percent) Pacific Islander students. During the five-year study period, black students increased by 5.2 percent and those reporting a combination of race/ethnicity increased 1.1 percent (Figure 1). The total diversity increase of Gap students was 4.6 percent when comparing AY 2015 to AY 2019.

Figure 1. Number of Participants by Race/Ethnicity and Gender – Comparison 2015 to 2019

Race/Ethnicity	AY 2015					AY 2019					2015 to 2019
	Female	Male	Not Reported	Total	% of Students	Female	Male	Not Reported	Total	% of Students	Difference %
American Indian	2	5	0	7	0.8%	3	0	0	3	0.5%	-0.3%
Asian	3	11	0	14	1.6%	4	9	0	13	2.2%	0.6%
Black	113	87	0	200	22.6%	93	71	1	165	27.8%	5.2%
Combination	13	4	0	17	1.9%	10	8	0	18	3.0%	1.1%
Hispanic	52	54	1	107	12.1%	39	21	0	60	10.1%	-2.0%
Pacific Islander	2	1	0	3	0.3%	1	1	0	2	0.3%	0.0%
White	260	271	5	536	60.6%	214	119	0	333	56.1%	-4.6%
Race/Ethnicity Not reported	177	161	62	400	Excluded	167	125	20	312	Excluded	
Total	497	387	23	1,284	100.0%	531	354	21	906	100.0%	

The student population enrolled in Gap eligible programs had a much higher concentration of diversity than the overall population of Iowa. When comparing the race/ethnicity of the overall population of Iowa to that of the students in the Gap program, based on the 2019 population estimates published by the United States Census, the majority of Iowa residents are white (90.6 percent), 6.3 percent are Hispanic or Latino, 4.1 percent are black, 2.7 percent are Asian, 2.0 percent are two or more races, 0.5 percent American Indian and Alaska Native and 0.2 percent Pacific Islander. Note, though the total participant numbers have decreased over the past five-year period, the number of female students participating in Gap programs has increased by 6.8 percent from AY 2015 to AY 2019(N-34).

The average age of all Gap participants in AY 2015 was 33.5 years old, and in AY 2019, 33.4 years old. Overall, minority Gap students were younger than white students. On average, the youngest population of Gap students in AY 2019 was Pacific Islander students (25.5 years old), followed by Hispanic students (29.7 years old). Gap participant ages ranged from 15 to 72 years (Figure 2).

Figure 2. Age of Participants by Race/Ethnicity and Gender- Comparison 2015 to 2019

Race/Ethnicity	AY 2015				AY 2019			
	Female	Male	Unknown	Total	Female	Male	Unknown	Total
American Indian	33.3	48.0	*	39.2	32.0	*	*	32.0
Asian	35.0	41.0	*	40.3	35.8	32.8	*	33.7
Black	29.3	36.4	*	32.6	30.9	33.9	42.0	32.3
Combination	25.7	32.0	*	26.8	28.5	33.6	*	30.8
Hispanic	27.3	31.9	*	29.7	27.4	33.9	*	29.7
Pacific Islander	28.0	36.7	*	34.5	24.0	27.0	*	25.5
White	32.9	34.0	51.0	33.5	33.5	35.1	*	34.1
Not reported	33.5	36.5	31.7	34.6	31.4	37.5	36.5	34.2
Average Age	31.9	35.0	32.6	33.5	31.9	35.5	36.8	33.4

**Insufficient data/no students in this category.*

Figure 3 below presents participants by age for AY 2019. The median age was 32.0 years old and mean age was 33.9 years old. Fifty-percent of participants were between 24.0 and 41.0 years old.

Figure 3. Age of Participants (AY 2018-2019 cohort)

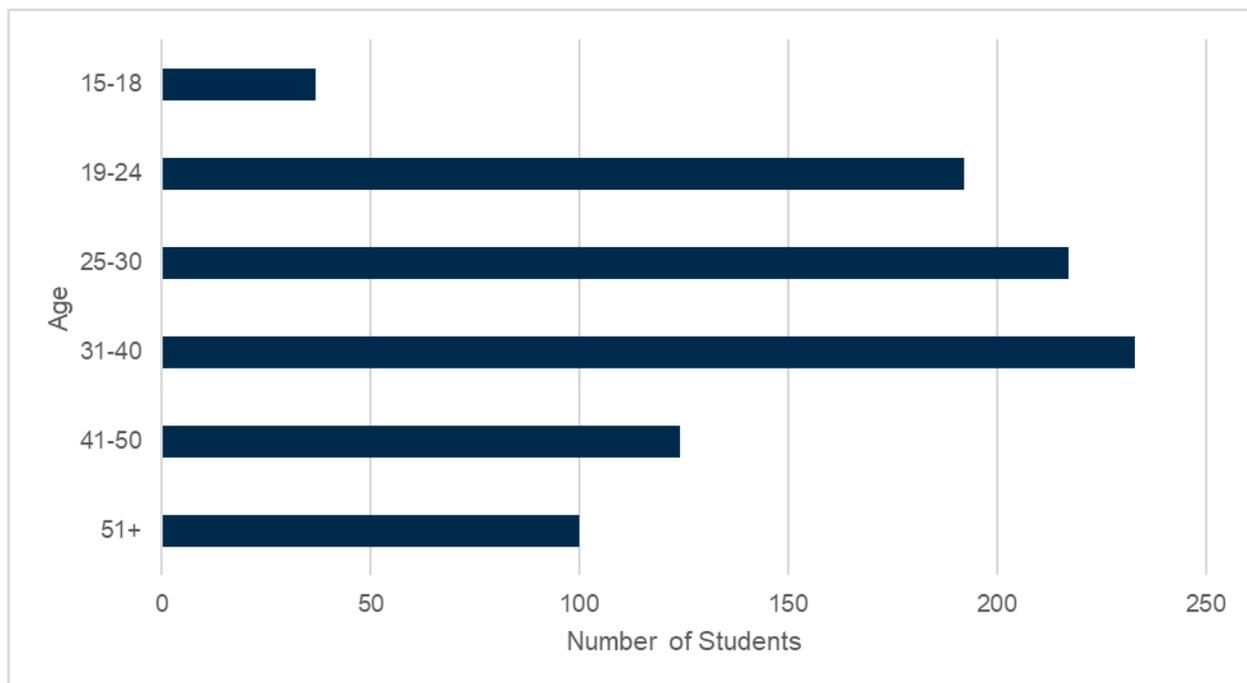
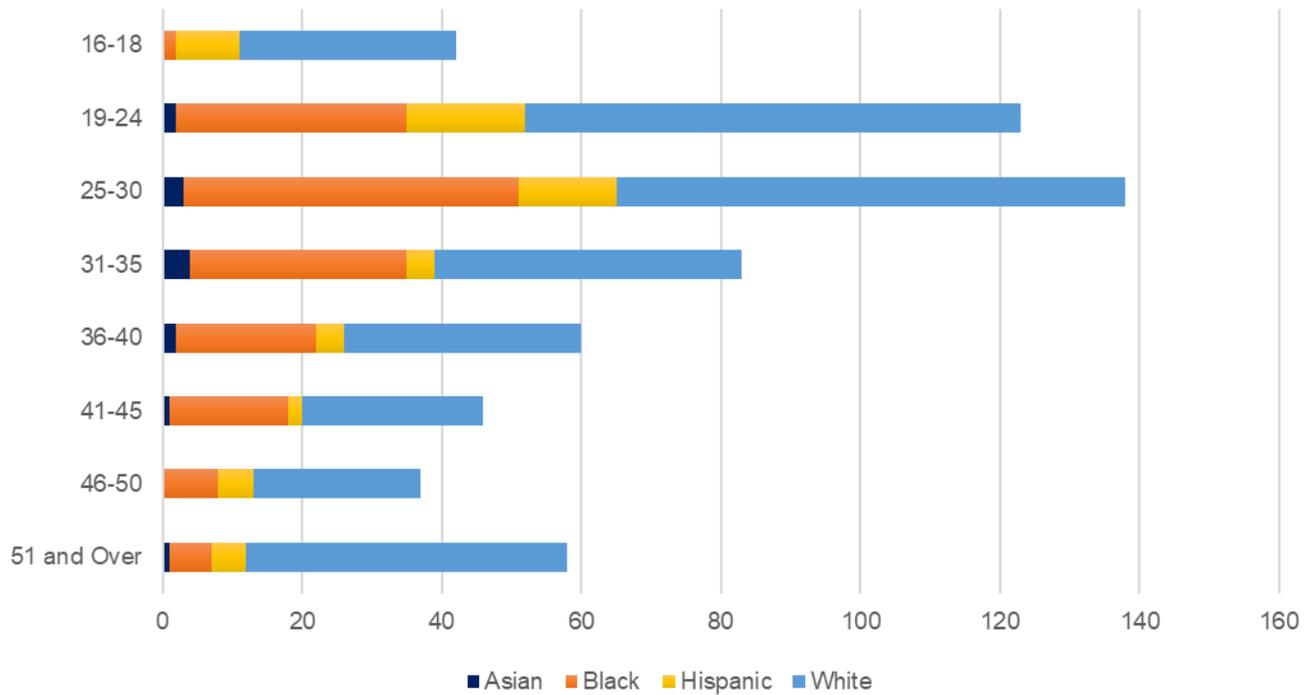


Figure 4 below represents participants by race and by age for AY 2019. Due to the limited number of students, the American Indian, combination of race/ethnicity and Pacific Islander students have been removed. The highest number of black and white students were ages 25 to 30 whereas the highest number of Hispanic students were ages 19 to 24.

Figure 4. Age by Race



Enrollment

Figure 5 identifies the enrollment totals for Gap participants by community college for the five-year period. The data from the Department of Education’s Management Information System (MIS) was used to analyze participant patterns. Each of the colleges offers a wide variety of training programs which have individual requirements for completion, therefore, the time to completion of programs offered will vary. Participants may be enrolled in one reporting year while their completion records are reported in the subsequent reporting year. Additionally, more emphasis on identifying completion of noncredit programs has been introduced beginning with academic year 2017-2018, which will help create more reliable completion data for Gap in subsequent years. Between AY 2015 to 2019, 10,080 students enrolled in a Gap-approved program had the highest number of student completers served through Des Moines Area Community College, Kirkwood Community College and Indian Hills Community College.

Figure 5. Enrollment by College (5-years)

College Name (abbreviation)	Enrollment
Northeast (NICC)	598
North Iowa Area (NIACC)	123
Iowa Lakes (ILCC)	506
Northwest (NCC)	45
Iowa Central (ICCC)	458
Iowa Valley (IVCCD)	372
Hawkeye (HCC)	945
Eastern Iowa (EICC)	714
Kirkwood (KCC)	1,843
Des Moines Area (DMACC)	2,199
Western Iowa Tech (WITCC)	365
Iowa Western (IWCC)	536
Southwestern (SWCC)	172
Indian Hills (IHCC)	1,015
Southeastern (SCC)	189
Total	10,080



Overall, the most frequently selected Gap programs among the five-year cohort were nursing assistant/aide and patient care (2,596 students), truck and bus driver/commercial vehicle operator (1,647 students), welding technology (814 students) and business/office technology (320 students). See Figure 6 for the top 25 programs during AY 2015 to AY 2019.

Figure 6. Number of Participants Enrolled per Program

Title	Number Enrolled
Nursing Assistant/Aide	2,596
Commercial Vehicle Operation	1,647
Welding Technology	814
Business/Office Technology	320
Allied Health & Medical Assisting	313
Family & Consumer Sciences	254
Phlebotomy	246
EMT/Paramedic	216
Machine Tool Technology/Machinist	197
Allied Health Diagnostics	165
Transportation & Materials Moving	148
Industrial Mechanics & Maintenance	140
Administrative Assistant	138
Occupational Safety Technology	133
Desktop Publishing	123
Medical Insurance Coding	120
Electrical/Electronics Equipment Installation & Repair	117
Industrial Technology	112
Business Management	111
Pharmacy Technician	98
Communications Systems Installation & Repair	95
Medical Insurance Specialist	83
HVAC Technology	77
Health & Medical Administrative Services	77
Building/Property Management	69

There were 4,558 programs completed within the study period of AY 2015 to AY 2019 and two programs accounted for over half of all those who completed a Gap approved program. One-third (32.8 percent) of the programs completed were in the nursing assistant/aide program and truck and bus driver/commercial vehicle operator programs constituted 25.4 percent (see Figure 7 for top 25 program completions).

Figure 7. Top Program Completions by Program - AY 2015 to AY 2019

Title	Number Completed
Nursing Assistant/Aide	1,493
Commercial Vehicle Operation	1,156
Welding Technology	434
Phlebotomy	143
Medical Insurance Coding	104
Administrative Assistant	97
Allied Health Diagnostics	96
Pharmacy Technician	79
Machine Tool Technology/Machinist	77
Health & Medical Administrative Services	71
EMT/Paramedic	68
Industrial Mechanics & Maintenance	51
Business/Office Technology	50
Building/Property Management	40
Occupational Safety Technology	39
Medical Receptionist	35
Renal/Dialysis Technology	34
Industrial Technology	29
Mental & Social Health Services	28
Medication Aide	26
Accounting	26
Culinary Arts	24
Communications Systems Installation & Repair	24
Mechanic & Repair Technology	23
Game & Interactive Media Design	22

Note: Time to completion varies by program and overlaps with the following academic year.



Continued Education/Transfer

There are only four cohorts of participants available for analysis pertaining to the continued education or transfer into credit-bearing programs from the five-year cohort. Those from the AY 2019 have not yet been measured due to the lag in data reporting by the National Student Clearinghouse. Twenty-four percent of the 4,337 students (1,042 students) continued their education into credit-bearing programs following the completion of their noncredit Gap program. Only 141 students (13.5 percent) left the state of Iowa to continue their education. The remaining 86.5 percent who continued their education stayed in-state to pursue studies in credit-bearing programs, and of those, 89.2 percent (N=804) did so at an Iowa community college. The remaining 10.8 percent (N=97) transferred to a four-year college or university (Figure 8).

Figure 8. Institutional Setting and Migration for Transfer Completers (AY 2015 to AY 2019)

Institutional Setting	In-State	Out-of State	Total
2-year Private	0	1	1
4-year Private	73	51	124
2-year Public	804	62	866
4-year Private	24	27	51
Total	901	141	1,042

Of those who continued their education following completion in AY 2015, AY 2016, AY 2017 or AY 2018, there were 367 student records in the NSC file which did not contain a transfer CIP code in order to determine their program of study; however, the majority of the student records that did contain a transfer CIP identified that they had enrolled in liberal arts and science programs (N=264). The remaining 411 students (62.5 percent) pursued a credit-bearing program (multiple CIPs in aggregate) that aligned with approved Gap programs of study such as registered nursing. Figure 9 lists the top fifteen credit-bearing programs of study that Gap completers enrolled in following completion of a Gap-approved program.

Figure 9. Top 15 Credit-bearing Programs

Credit-bearing Program	Count	Percent of All
Liberal Arts & Science/General Studies	264	39.1%
Registered Nurse	104	15.4%
Business Administration	21	3.1%
Medical/Clinical Assistant	17	2.5%
Accounting	10	1.5%
Welding Technology	9	1.3%
EMT/Paramedic	8	1.2%
Psychology	6	0.9%
Automotive Mechanics Technology	6	0.9%
Machine Tool Technology/Machinist	6	0.9%
Medical Administrative/Secretary	6	0.9%
Information Technology	5	0.7%
Electromechanical Engineering Technology	5	0.7%
Criminal Justice	5	0.7%
Community Organization/Advocacy	5	0.7%

Employment and Wages (Pre and Post)

In addition to those who continued their education and training, there was a large portion of students who entered employment the quarter following completion of their training program. In order to identify those employed before their training and those entering employment post program completion, Iowa Unemployment Insurance (UI) wage records were matched to the Gap participants for four quarters before they began their training and four quarters after completion.

Three groups were analyzed: employed both pre-enrolled and post-completion (employed in different or same industry), unemployed prior but employed after completion (new hire) and those who were unemployed before and/or after completion of their program of choice (dislocated and not employed).

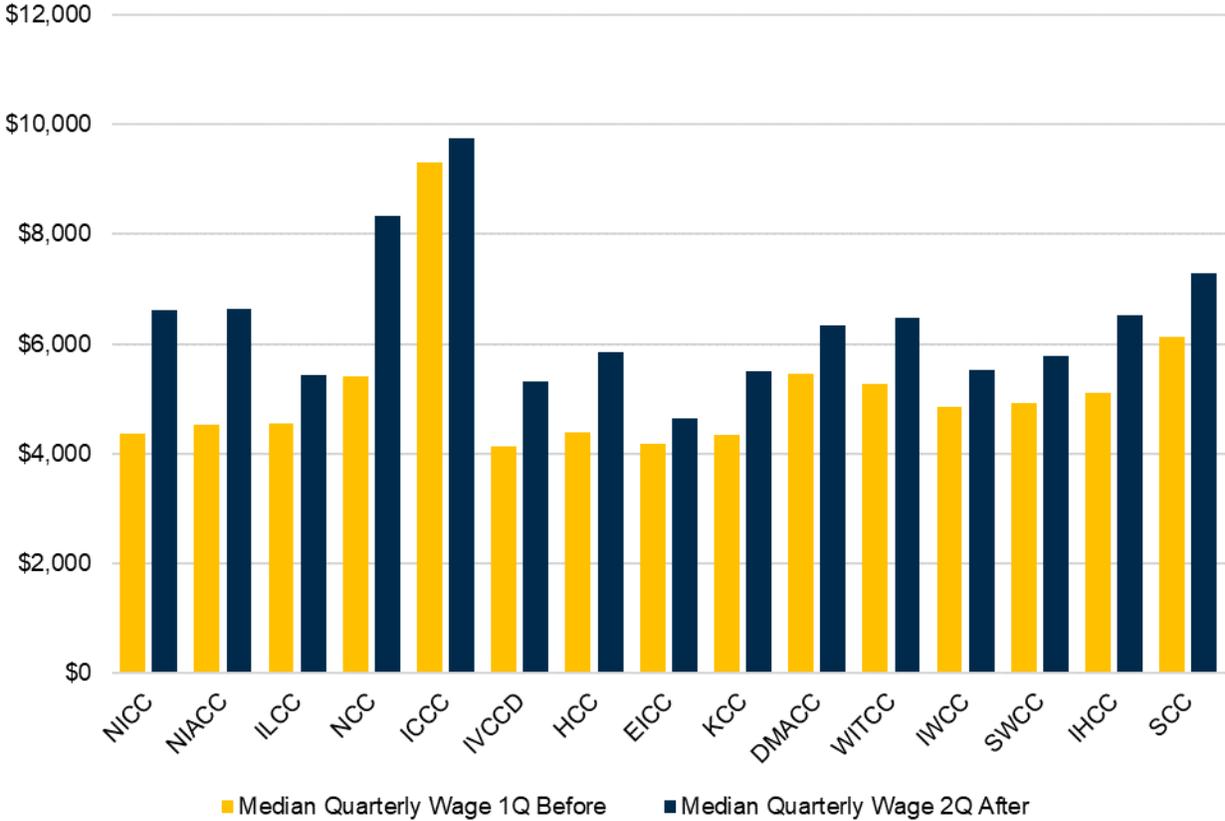
Over one-fourth of the aggregate cohort participants (28.0 percent) were working in the same industry before enrollment as they did after completion. A comparable proportion of participants changed industries (28.5 percent) following the completion of their program. As an indication of the value of the Gap-eligible programs, both groups show an increase in wages following their program completion when compared to the pre-training wages, but the most significant increase is shown for those who chose to be employed in a different industry (see Figure 10).

Figure 10. Number of Participants and Wages Pre- and Post-training by Type (AY 2015 to AY 2019)

Employment Status	#	Median Quarterly Wage (1st Prior)	Median Quarterly Wage (1st Post)
Employed in Different Industry	1,470	\$3,322.18	\$5,125.50
Employed in Same Industry	1,495	\$4,809.19	\$5,446.29
New Hire (unemployed quarter prior to training but employed after)	812	\$ -	\$3,902.04
Dislocated (became unemployed during the prior quarter and remained unemployed)	475	\$2,596.49	\$ -
Not Employed	991	\$ -	\$ -

Figure 11 shows a side-by-side comparison of median wages before and after program completion by community college. Wages were compared using the quarter before beginning the program and the second quarter following completion so that a full quarter of wages were available. It is worthwhile to point out that program participants at Northwest Iowa Community College (NCC) experienced the most significant gain in wages with a 54.0 percent wage increase by the second quarter following completion. The majority of students at Northwest Iowa Community College completed programs in mobile crane operation, heavy equipment operation, welding and commercial vehicle operation. Additionally, Iowa Central students realized the highest wages across the state. Most of these students completed programs in welding, commercial vehicle operation, nursing assistant/aide and mechanic and repair technologies.

Figure 11. Pre- and Post-training Median Quarterly Wages by Community College



Note: Figure 5 for abbreviated college name definitions

Figure 12 displays a comparison of median wages the quarter before and the second quarter following program completion by gender. It is important to note that both gender groups, and even those who did not report their gender, experienced a wage gain after completion of their Gap-eligible program; however, there is wage disparity between male and female completers. Further analysis shows that the gender imbalance in industries which pay higher wages plays a part in this disparity.

Figure 12. Before and After Wages by Gender

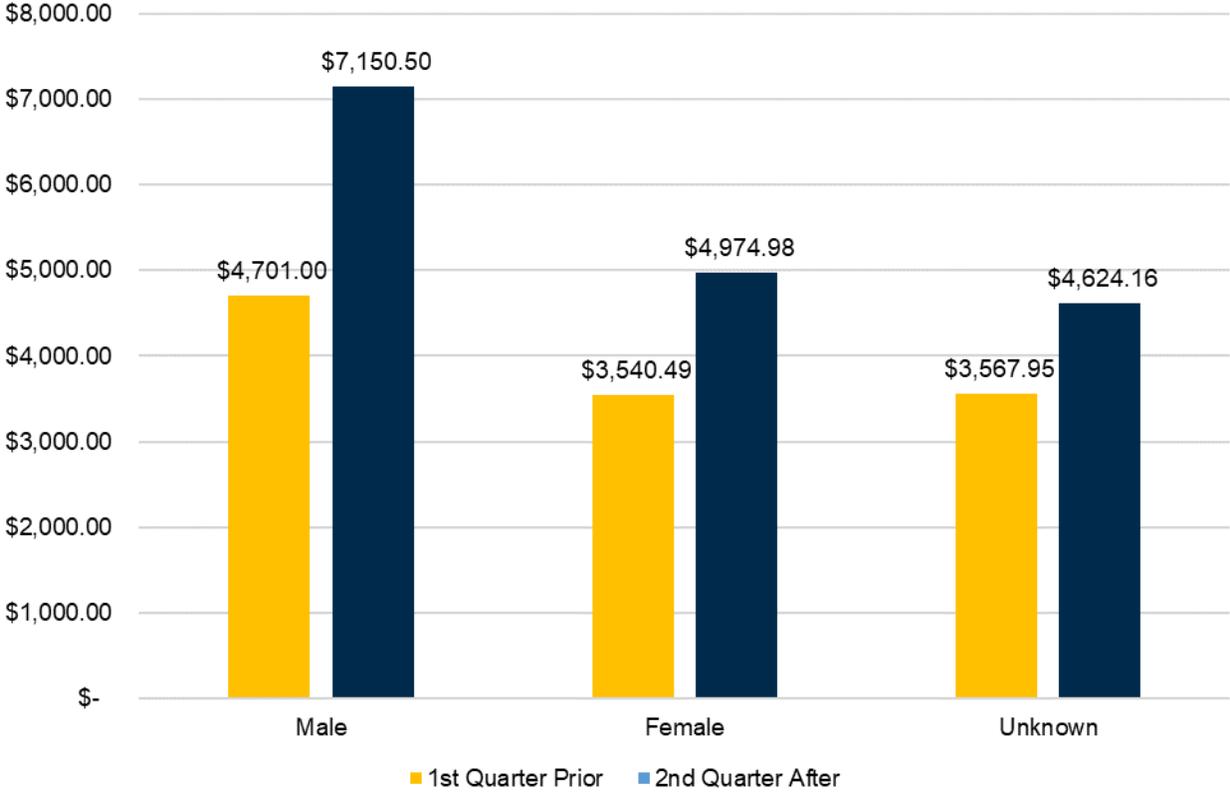


Figure 13 illustrates the wage gain/loss for those who were employed in the same industry before training and following training. The largest percentage increase was in the construction industry (44.8 percent increase in quarterly wages), followed by real estate and rental/leasing and administrative support and waste management/remediation services both at a 32.8 percent increase. The largest median quarterly wages were earned in the second quarter following completion of training by those employed in the wholesale trade industry (\$11,972.61) and those employed in manufacturing (\$10,441.17).

Figure 13. Wages Pre- and Post-training by Industry, Those in Same Industry

Industry After Training Completion (Code)	Median Quarterly Wage (1st Prior)*	Median Quarterly Wage (2nd Post)	Difference	Percent Increase/Decrease
Construction (23)	\$5,387.14	\$7,800.05	\$2,412.91	44.8%
Real Estate & Rental/Leasing (53)	\$6,438.80	\$8,549.57	\$2,110.77	32.8%
Administrative Support & Waste Management/Remediation Services (56)	\$3,979.75	\$5,284.25	\$1,304.50	32.8%
Professional, Scientific & Technical Services (54)	\$4,361.73	\$5,509.00	\$1,147.27	26.3%
Educational Services (61)	\$4,088.73	\$5,122.73	\$1,034.00	25.3%
Other Services (except Public Administration) (81)	\$2,928.01	\$3,603.10	\$675.09	23.1%
Health Care & Social Assistance (62)	\$4,917.29	\$5,983.09	\$1,065.80	21.7%
Retail Trade (44-45)	\$3,699.45	\$4,472.04	\$772.59	20.9%
Wholesale Trade (42)	\$10,072.62	\$11,972.61	\$1,899.99	18.9%
Manufacturing (31 & 33)	\$9,461.44	\$10,441.17	\$979.73	10.4%
Agriculture, Forestry, Fishing & Hunting (11)	\$7,449.98	\$8,046.35	\$596.37	8.0%
Finance & Insurance (52)	\$7,748.03	\$8,340.69	\$592.66	7.6%
Information (51)	\$6,184.50	\$6,351.04	\$166.54	2.7%
Public Administration (92)	\$6,933.35	\$7,114.82	\$181.47	2.6%
Transportation & Warehousing (48-49)	\$5,657.19	\$5,801.71	\$144.52	2.6%
Accommodation & Food Services (72)	\$3,464.78	\$3,395.77	\$(69.01)	-2.0%
Mining, Quarrying & Oil/Gas Extraction (21)	*	*	*	*
Utilities (22)	*	*	*	*
Management of Companies & Enterprises (55)	*	*	*	*
Arts, Entertainment & Recreation (71)	*	*	*	*
Overall Average	\$5,798.30	\$6,736.75	\$938.45	16.2%

* *Insufficient/suppressed data*

The majority of those who were employed before training, but became employed in a different industry after completion of training, increased their quarterly wage the first quarter following completion. Many were employed in administrative support, accommodation and food services or retail trade prior to training. After training was completed, the majority of students were working in health care or manufacturing industries, which pay much higher wages for most occupations.

Using the industry that the majority of students chose for employment following their training as an example, Figure 14 represents the change in Gap participant wages when the employees moved from one industry to another. The majority of those who were in the agricultural industry before entering the Gap program became employed in manufacturing following completion and had the highest percentage of increase in employment the quarter following completion (over 304 percent). Though it seems unreasonable to have an increase that high, it can be explained. The majority of wages earned by people in the agricultural industry are not covered by unemployment insurance and would not be included in the wages prior to training, such as employees who are immediate family members of the employer or seasonal/part-time workers.

Figure 14. Wages Pre- and Post-training by Industry, Those in Different Industry

Industry Prior to Training (Code)	Median Quarterly Wage (1st Prior)	New Industry Following Training (Code)	Median Quarterly Wage (1st Post)	Difference	Percent Increase/Decrease
Agriculture, Forestry, Fishing & Hunting (11)	\$1,777.50	Manufacturing (31 & 33)	\$7,188.38	\$5,410.88	304.4%
Information (51)	\$1,936.33	Health Care & Social Assistance (62)	\$7,120.16	\$5,183.83	267.7%
Professional, Scientific, & Technical Services (54)	\$2,298.24	Health Care & Social Assistance (62)	\$5,353.84	\$3,055.60	133.0%
Real Estate & Rental/Leasing (53)	\$1,997.24	Health Care & Social Assistance (62)	\$4,636.17	\$2,638.93	132.1%
Management of Companies & Enterprises (55)	\$2,505.19	Health Care & Social Assistance (62)	\$4,867.77	\$2,362.58	94.3%
Retail Trade (44-45)	\$2,830.12	Health Care & Social Assistance (62)	\$5,424.87	\$2,594.75	91.7%
Accommodation & Food Services (72)	\$2,382.57	Health Care & Social Assistance (62)	\$4,468.70	\$2,086.13	87.6%
Public Administration (92)	\$3,491.66	Manufacturing (31 & 33)	\$6,217.50	\$2,725.84	78.1%
Administrative Support & Waste Management/Remediation Services (56)	\$2,658.94	Health Care & Social Assistance (62)	\$4,653.52	\$1,994.58	75.0%
Transportation & Warehousing (48-49)	\$2,949.75	Health Care & Social Assistance (62)	\$4,939.65	\$1,989.90	67.5%
Construction (23)	\$5,465.95	Manufacturing (31 & 33)	\$7,549.59	\$2,083.64	38.1%
Arts, Entertainment & Recreation (71)	\$3,443.73	Health Care & Social Assistance (62)	\$4,447.43	\$1,003.70	29.1%
Educational Services (61)	\$3,404.18	Health Care & Social Assistance (62)	\$4,204.30	\$800.12	23.5%
Other Services (except Public Administration) (81)	\$3,945.83	Health Care & Social Assistance (62)	\$4,828.25	\$882.42	22.4%
Wholesale Trade (42)	\$7,260.12	Manufacturing (31 & 33)	\$8,580.18	\$1,320.06	18.2%
Manufacturing (31 & 33)	\$5,169.04	Transportation & Warehousing (48-49)	\$5,383.05	\$214.01	4.1%
Finance & Insurance (52)	\$7,055.21	Health Care & Social Assistance (62)	\$6,548.69	\$(506.52)	-7.2%
Health Care & Social Assistance (62)	\$5,121.14	Administrative Support & Waste Management/Remediation Services (56)	\$2,426.36	\$(2,694.78)	-52.6%
Average based on primary new industry	\$3,649.60		\$5,491.02	\$1,841.43	0.50456

A matrix (Figure 15) was developed to illustrate the movement of students from one industry to another following their training completion. Those students that were found in employment prior to their training coursework are displayed on the “Y” axis and where they became employed the quarter following completion on the “X” axis. Overwhelmingly, students who were previously in health care remained in health care (83.4 percent retention), whereas only slightly more than one-third (37.5 percent) of those in accommodation and food services remained in the industry. They instead became employed in health care, retail or manufacturing.

Health care had the largest gain in new employment of all the industries with an additional 362 students acquiring jobs in health care, and the transportation and warehousing industry gained 173 employees from program completers. Accommodations and food service, administrative support and retail trade represent the industries where most students transitioned from once they completed their training.

Figure 15. Number of Students by Industry Employment Pre- and Post-training, 1st Quarter Prior and Following Training

		Industry After Training Completion																		Total	Percent Industry Retention
		Agriculture	Construction	Manufacturing	Wholesale Trade	Retail Trade	Transportation & Warehousing	Information	Finance & Insurance	Real Estate & Rental/Leasing	Professional Services	Administrative Support	Educational Services	Health Care & Social Assistance	Arts & Recreation	Accommodation & Food Services	Other Services	Public Administration			
Industry Prior to Training	Industry Codes	11	23	31 & 33	42	44-45	48-49	51	52	53	54	56	61	62	71	72	81	92			
	Agriculture	17	0	5	1	2	3	0	0	0	0	0	0	2	0	2	0	1	33	51.5%	
	Construction	4	38	12	4	0	10	0	0	1	0	6	0	3	0	2	0	0	80	47.5%	
	Manufacturing	3	12	220	14	21	45	0	0	0	0	40	0	34	0	8	4	4	405	54.3%	
	Wholesale Trade	2	0	10	39	3	8	0	0	0	0	7	1	8	0	3	0	1	82	47.6%	
	Retail Trade	0	10	30	5	190	22	1	2	1	0	28	6	116	2	22	6	4	445	42.7%	
	Transportation & Warehousing	0	4	7	5	3	44	1	0	1	0	7	1	9	0	0	1	0	83	53.0%	
	Information	0	1	3	1	1	1	7	0	0	0	2	2	9	0	1	0	0	28	25.0%	
	Finance & Insurance	0	0	2	0	0	4	0	6	0	2	1	0	9	0	2	0	0	26	23.1%	
	Real Estate & Rental/Leasing	0	2	0	1	0	3	0	0	9	0	2	0	3	0	3	2	0	25	36.0%	
	Professional Services	0	0	1	2	2	1	0	0	0	17	3	1	9	0	1	0	1	38	44.7%	
	Administrative Support	2	9	59	18	28	59	4	3	2	5	132	1	104	1	23	2	2	454	29.1%	
	Educational Services	0	2	4	1	2	10	1	0	0	1	5	58	15	0	0	1	0	100	58.0%	
	Health Care & Social Assistance	0	1	5	1	15	13	2	4	0	0	32	8	524	2	13	0	8	628	83.4%	
	Arts & Recreation	0	0	0	0	1	1	0	0	0	1	1	0	7	7	1	0	0	19	36.8%	
	Accommodation & Food Services	2	9	25	6	27	23	1	0	1	2	23	7	124	0	152	2	1	405	37.5%	
	Other Services	0	2	2	2	2	6	0	0	0	0	4	2	12	1	5	22	2	62	35.5%	
	Public Administration	0	0	3	1	1	3	0	0	0	0	1	0	2	0	0	0	11	22	50.0%	
	Total	30	90	388	101	298	256	17	15	15	28	294	87	990	13	238	40	35	2,935		
	Increase/Decrease by Industry	-3	10	-17	19	-147	173	-11	-11	-10	-10	-160	-13	362	-6	-167	-22	13			

Note: Mining, utilities and management of companies were excluded due to insufficient data

Of those who were unemployed before training (N=1,803), 812 were employed within the first quarter following completion of their program and an additional 274 by the second quarter. Of those who became employed within the first quarter following completion, 253 students became employed in the health care and social assistance industry and an additional 112 students became employed in the transportation & warehousing industry (see Figure 16).

Figure 16. Those Who Were Unemployed Prior to Training by Industry Employed After Training

Industry (Code)	First Quarter Following	Second Quarter Following
Health Care & Social Assistance (62)	253	63
Transportation & Warehousing (48-49)	112	25
Administrative Support & Waste Management/Remediation Services (56)	108	43
Manufacturing (33)	75	34
Retail Trade (44-45)	72	29
Accommodation & Food Services (72)	43	22
Construction (23)	41	8
Wholesale Trade (42)	37	10
Other Services (except Public Administration) (81)	14	5
Educational Services (61)	21	10
Public Administration (92)	7	*
Real Estate & Rental/Leasing (53)	5	*
Information (51)	*	*
Agriculture, Forestry, Fishing & Hunting (11)	6	8
Utilities (22)	*	*
Professional, Scientific & Technical Services (54)	6	7
Management of Companies & Enterprises (55)	*	*
Arts, Entertainment & Recreation (71)	*	*
Finance & Insurance (52)	5	*
Mining, Quarrying & Oil/Gas Extraction (21)	3	*

* *Insufficient/suppressed data*



Figure 17 identifies the quarterly average wage for the first quarter following completion of the program, by industry. The highest average wage, post-training, for those who were previously unemployed was in the professional, scientific and technical services industry, followed by agriculture and manufacturing.

Figure 17. Wages by Industry of Those Who Were Unemployed Prior to Training

Industry (Code)	Average Quarterly Wage (1st Post)
Professional, Scientific & Technical Services (54)	\$10,673.10
Agriculture, Forestry, Fishing & Hunting (11)	\$7,571.81
Manufacturing (33)	\$6,584.76
Real Estate & Rental/Leasing (53)	\$5,887.88
Construction (23)	\$5,798.61
Transportation & Warehousing (48-49)	\$5,741.67
Wholesale Trade (42)	\$5,662.26
Health Care & Social Assistance (62)	\$4,042.81
Educational Services (61)	\$3,085.86
Retail Trade (44-45)	\$2,798.39
Other Services (except Public Administration) (81)	\$2,064.01
Accommodation & Food Services (72)	\$2,021.42
Administrative Support & Waste Management/Remediation Services (56)	\$1,962.18
Mining, Quarrying & Oil/Gas Extraction (21)	*
Utilities (22)	*
Information (51)	*
Finance & Insurance (52)	*
Management of Companies & Enterprises (55)	*
Arts, Entertainment & Recreation (71)	*
Public Administration (92)	*

* *Insufficient/suppressed data*



Conclusion

Iowa has an exceptionally low unemployment rate and businesses are demanding skilled labor necessary for them to grow. The Gap Tuition Assistance Program is critical in moving our state forward toward the Future Ready Iowa goal of having 70 percent of Iowans with some postsecondary education or training by 2025.

The data show that students benefit through employment opportunities and wage gains following program completion, as illustrated throughout this report. Training included in the Gap Tuition Assistance program and offered at each of Iowa's community colleges directly addresses the needs of local/regional employers by offering the noncredit short-term training for students with barriers, giving them the knowledge and skills needed to become employed in many in-demand occupations.



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Data Sources

- Educational Migration, National Student Clearinghouse
- Gap Tuition Assistance Program, Iowa Department of Education's Community College Division
- Iowa Unemployment Insurance (UI) Wage Records, Iowa Workforce Development
- Management Information Systems (MIS), Iowa Department of Education's Community College Division



COMMUNITY COLLEGES & WORKFORCE PREPARATION

PROSPERITY THROUGH EDUCATION

The Division of Community Colleges and Workforce Preparation within the Iowa Department of Education administers a variety of diverse programs that enhance Iowa's educational system and help to prepare a skilled and knowledgeable workforce. Divided between two bureaus — the Bureau of Community Colleges and the Bureau of Career and Technical Education — the Division is committed to providing and supporting opportunities for lifelong learning. In addition to working with Iowa's 15 public community colleges on state accreditation, program approval, equity review, and data reporting, guidance is also provided in the areas of career and technical education, workforce training and economic development, adult education and literacy, military education, the state mandated OWI education program, the GAP Tuition and PACE programs, Senior Year Plus and the Statewide Intermediary Network program.