



RESEARCH BRIEF — AY 2017-18

# Industry “Credential-Ready” Students

## *Third-Party Industry Credentials*

Third-party industry certifications and licenses (i.e., credentials) are often required for occupations or specific work within industries as evidence of a tested level of competence and professionalism. This research brief examines the various industry credentials earned by credit students at Iowa’s community colleges for the 2017-18 academic year, as well as the coursework taken that is required for third-party certification or licensure. In many cases, students pursue such credentials on their own, so the colleges have no record of certifications earned. In these cases, researchers must rely on credential-related coursework completed to verify that students are “credential-ready” and therefore potential industry credential holders.

### Introduction

When students successfully complete a community college career and technical education (CTE) program, they receive an academic award (associate degree, diploma, or certificate). However, for some of these skill-based programs, students can also earn third-party certifications or licenses after completing coursework or a formal assessment aligned with the related industry credential. Sometimes these assessments are part of a conventional community college CTE program, but more often than not, the students pursue these third-party credentials on their own after completing aligned coursework. A precise count of how many community college students actually pursue the associated third-party credential is not known; however, the number of students that complete aligned coursework is known and can provide a good estimate of the number of “credential-ready” students that community colleges are preparing. This estimate, referred to in this brief as potential industry credentials, can then inform discussions about how to increase the pool of credentialed skilled workers in Iowa’s talent pipeline.

Advanced knowledge and technical skills are required to succeed in Iowa’s expanding economy; therefore, community colleges providing the training required for third-party industry-recognized credentials is a key component of meeting Iowa’s Future Ready Iowa goal of 70 percent of the workforce having education or training beyond high school by 2025. This report uses survey and student course completion data to estimate the number of potential industry credentials earned by college and jointly enrolled high school students in Iowa. The basis of the study is a survey completed by Iowa’s 15 community colleges in the fall of 2018 regarding coursework provided that prepares students for third-party industry credentials.

## Definition

Industry-recognized credentials are defined by the Corporation for a Skilled Workforce (CSW) as “a documented award by a responsible and authorized body that attests that an individual has achieved specific learning outcomes or attained a defined level of knowledge or skill relative to a given standard. Credential, in this context, is an umbrella term that includes degrees, diplomas, licenses, certificates, badges, and professional/industry certifications.” The Association for Career and Technical Education (ACTE) has a definition that aligns with CSW’s and has provided a chart to distinguish these various credentials (Figure 1).

**Figure 1. What is a Credential? (ACTE, 2015)**

	CERTIFICATE	CERTIFICATION	DEGREE	LICENSE
AWARDED BY...	Education Institution	Business, trade associations, industry	Education Institution	Government Agency
RESULTS FROM...	Course of Study	Assessment	Course of Study	Meeting Requirements
INDICATES...	Education	Skill Mastery	Education	Legal Permission
COMPLETED IN...	<2 Years	Variable	2+ Years	Variable
MAINTAINED BY...	N/A	Skill practice, re-assessment	N/A	Re-application, continuing education
EXAMPLE...	ServSafe Food Handler, Green Manufacturing Specialist, Certificate in Business Administration	Certified Welder (CW), Certified Logistics Technician (CLT), Certified International Information Systems Security Professional (CISSP)	Bachelor of Science, Master of Science, Doctor of Engineering	Registered Nurse (RN), Cosmetologist, Master Plumber

The definition of *third-party*, in most cases, indicates a governmental or industry organization outside of the postsecondary training provider that serves as the authorizing body. The Iowa Department of Education captures completion data for students obtaining educational awards such as degrees, diplomas, and certificates; governmental organizations maintain records of people who have achieved licensure; and individual industry organizations document those that have earned certifications. However, there is currently no systemic method to maintain a comprehensive database of the various credentials available and earned throughout the state of Iowa.

## Why Does this Matter?

Third-party industry credentials, which are often required for occupations or specific work within a field, lend credibility to those employed in those industries. Possession of the required credential shows the public that the employee has the skills and knowledge necessary to perform professionally. The value of each credential varies with some required for work in the field, some are needed to advance within a field, and others are just recommended to increase an applicant's chance of securing employment. There are a multitude of occupational credentials, as well as smaller skills-based micro-credentials.

Work is ongoing to determine the quality and value of, along with the training and/or testing required for, each of the various credentials available within industries. In many cases, while colleges prepare students for industry credentials, they neither test the students nor have access to the test results of students who pursue third-party certifications or licenses. This report is the Iowa Department of Education's first attempt to determine the most prevalent credentials obtainable to credit students in Iowa's community colleges, and to connect those credentials to the training pathways (CTE program coursework) required for their attainment. Many of these programs and aligned industry credentials are connected to high demand, high-wage occupations prevalent in Iowa. This report will attempt to shed light on which credentials are of higher value to the state's economy and clarify which academic pathways students can take to obtain the necessary knowledge and skill development for credential completion.

## Methodology

In order to estimate the number of potential industry credentials (PICs) earned by credit students during Academic Year (AY) 2017-18, a survey of Iowa's 15 community colleges was conducted in summer 2018, which asked college academic administrators to list the industry credentials that are aligned with their career and technical education (CTE) programs. Survey responders indicated the name of each industry credential, the certifying organization, the credential-aligned program offered by the college (as indicated by classification of instructional program (CIP) number), and whether or not the credential was available to high school students through joint enrollment.

In fall 2018, respondents were sent a follow-up survey that included a list of all courses in their college's credential-related CTE programs. For each credential, they were asked to indicate which courses within each program were required for students to gain the knowledge and demonstrable skills to be "credential-ready". Data analysts then matched these courses to AY 2017-18 student course data, gather through the Community College Management Information System (MIS), to determine the number of students that successfully completed the courses with a C- or higher. This industry-aligned course completion data was tabulated regardless of whether the students completed the full program. Additionally, the students in the AY 2017-18 cohort were tracked back through six years of coursework (back to FY2013) to determine the course completion timeframe.

Community college CTE programs can be presented as a part of the national career cluster framework (Table 1). Each career cluster represents a distinct grouping of occupations and industries based on the knowledge and skills required for employment. The 16 career clusters and related career pathways provide an important organization tool for schools to develop more effective programs of study and curriculum. Each of the credentials provided in the survey was connected to one of these 16 career clusters.

**Table 1. National Career Cluster Framework**

<b>Number</b>	<b>National Career Cluster</b>
1	Agriculture, Food, and Natural Resources
2	Architecture and Construction
3	Arts, A/V Technology, and Communications
4	Business Management, and Administration
5	Education and Training
6	Finance
7	Government and Public Administration
8	Health Science
9	Hospitality and Tourism
10	Human Services
11	Information Technology
12	Law, Public Safety, Corrections, and Security
13	Manufacturing
14	Marketing
15	Science, Technology, Engineering, and Mathematics
16	Transportation, Distribution, and Logistics

## Limitations of this Research

The limitations of this research include the fact that the data is primarily formulated from survey responses (i.e. the generated lists of industry credentials and required/related CTE program courses), so is based on administrators' knowledge and therefore may not include all industry credentials available to the students. Additionally, the survey did not gather data regarding the quality and value of each credential. Indeed, some of those provided are either micro-credentials (based on a small skill set) or "nice-to-have" credentials, as compared to others that are required for occupational licensure or certification. This research did not utilize a standard with which to judge the value of any credential, hence all credentials obtained through the survey are reported equally whether they be certifications, licenses, or badges – required or preferred. Another key limitation of this study is that, because data is not available regarding whether students actually earned the credentials their CTE coursework prepared them for, no completion or educational outcome analysis could be conducted for these students.

### Key Highlights for Adult Students

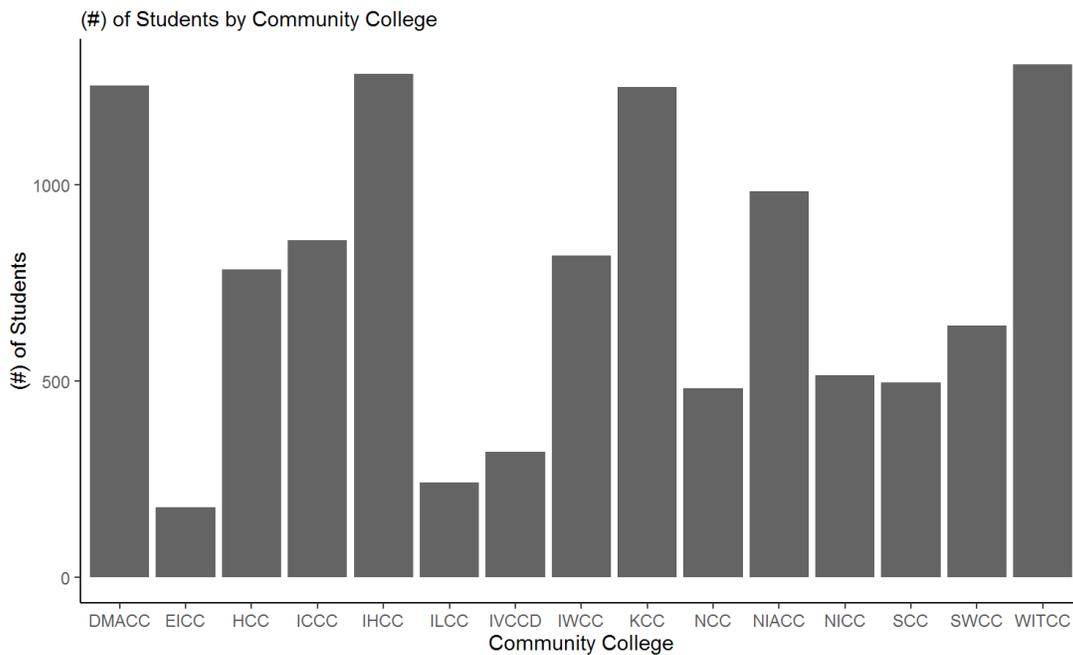
The community college survey resulted in a list of 117 industry credentials associated with CTE credit programs. In AY 2017-18, there were 5,437 unduplicated students determined to be “credential-ready” throughout the state, with 1,183 (21.8 percent) of these identified as high school jointly enrolled students. There were actually 11,418 “potential industry credentials” (PICs) that these students were prepared to earn, with 2,030 (17.8 percent) of these potentially earned by jointly enrolled (JE) students. These numbers indicated that there are approximately two PICs per unique student on average. Western Iowa Tech Community College (WITCC) had the highest number of unduplicated “credential-ready” students with 899 of which 296 were jointly enrolled (Table 2).

**Table 2. Potential Credential Earners (Unduplicated) and Potential Industry Credentials (duplicated) by College**

Community College	Total Students (unduplicated)	JE Students (unduplicated)	Total PICs (duplicated)	Total JE Duplicated Certifications
NICC	249	3	516	3
NIACC	184	83	984	309
ILCC	80	9	242	9
NWCC	107	0	482	0
ICCC	255	29	859	116
IVCCD	77	6	321	48
HCC	295	9	784	40
EICC	142	24	179	24
KCC	721	106	1,250	106
DMACC	624	130	1,253	213
WITCC	899	296	1,307	389
IWCC	697	169	820	191
SWCC	238	15	641	19
IHCC	690	266	1,283	525
SCC	179	38	497	38
<b>State</b>	<b>5,437</b>	<b>1,183</b>	<b>11,418</b>	<b>2,030</b>

Figure 2 illustrates the breakdown of the 11,418 PICs that these students were prepared for in their CTE program, by college.

**Figure 2. Potential Industry Credentials by Community College CTE Students, AY 2017-18**



Over 60 percent of these 5,437 students also received an academic award (associate degree, diploma or certificate) in their CTE credit programs of study in addition to earning, or preparing to earn, industry credentials (Table 3).

**Table 3. Award Achievement by College**

Community College	Unduplicated Potential Credential Students	Of those Students, Award Earners	JE Award Earners
NICC	249	194	0
NIACC	184	67	5
ILCC	80	53	0
NWCC	107	83	0
ICCC	255	127	1
IVCCD	77	53	6
HCC	295	174	1
EICC	142	73	2
KCC	721	407	1
DMACC	624	310	14
WITCC	899	825	257
IWCC	697	382	0
SWCC	238	174	12
IHCC	690	293	37
SCC	179	112	0
<b>State</b>	<b>5,437</b>	<b>3,327 (61.2%)</b>	<b>336 (28.4%)</b>

## Student Demographics and Credential Types

The average age of these 5,437 credential-ready students was 22.2 years. Females made up 51.4 percent of the students (2,796), and the majority (79.1 percent) reported as white. Additionally, 929 students (17.1 percent) reported being a racial or ethnic minority, with 3.8 percent not reporting their race or ethnicity.

The top 30 credentials identified for non-joint enrollment students, with the number of potential industry credentials (PICs), are shown in Table 4. Interestingly, most of these PICs fall within two of the 16 nationally recognized career clusters that define career and technical education; namely, health science and manufacturing. These credentials are ordered by the number of PICs available in each. These 30 credentials accounted for 63.6 percent of the total 11,418 PICs.

**Table 4. Top 30 of 117 Credentials Reported: Potential Industry Credentials (PICs)**

Top 30 Credentials	Students	JE in 2018
Iowa Certified Nurse Aide (75 hr.-CNA)	1056	464
NCLEX Licensed Practical Nurse Exam (LPN)	586	0
ServSafe (National Restaurant Association)	428	114
Pediatric/Adult CPR; Heartsaver First Aid	353	169
NCLEX Registered Nurse Exam (RN)	305	0
ASME Personnel Certification	283	80
CompTIA A+	275	16
MACS Air Conditioning Refrigerant Section 609 Certification	246	33
CISCO Networking	244	6
API Code (510 Standard) Pressure Vessel Inspector	226	75
OSHA 10-Hour Construction	194	32
OSHA 10-Hour General	194	32
OSHA 30-Hour Construction	194	32
USDOL Universal Precautions/Bloodborne Pathogens	194	32
Iowa DOT Commercial Driver's License (CDL)	185	6
CompTIA Security+	179	6
CompTIA Network+	169	1
IDPH Adult Abuse Reporting	166	0
IDPH Mandatory Reporter Certificate	166	0
AWS Certified Welder	154	45
AWS SENSE1 Flux-Cored Arc Welding	154	45
AWS SENSE1 GMAW	154	45
AWS SENSE1 Orientation	154	45
AWS SENSE1 Safety and Health	154	45
AWS SENSE1 SMAW	154	45
AWS SENSE1 Symbol Interpretation	154	45
AWS SENSE1 Thermal Cutting Processes	154	45
Pharmacy Technician Certification (CPhT) through the Certification Exam (PTCE) (Iowa Licensure through Iowa Board of Pharmacy)	139	46
DANB Certified Dental Assistant	127	0
ACI Concrete Flatwork Finisher and Technician	126	14
<b>Totals</b>	<b>7,267 (63.6%)</b>	<b>1,518 (74.8%)</b>

The number of survey-reported credentials per career cluster are shown in Table 5. For further credential information, Appendix A shows all 117 credentials reported to be associated with community college CTE credit programs, along with the total number of PICs and joint enrollment PICs related to each. It also provides the number of students that left the community college programs without earning an academic award.

**Table 5. Credentials Available by Career Cluster with PICs**

<b>Career Cluster</b>	<b>Total Number of Credentials</b>	<b>Total PICs (duplicated)</b>	<b>JE PICs (duplicated)</b>
Agriculture, Food & Natural Resources	10	620	36
Architecture & Construction	17	471	106
Arts, A/V Tech and Communications	0	0	0
Business Management and Administration	0	0	0
Education and Training	2	31	12
Finance	0	0	0
Government and Public Administration	0	0	0
Health Science	24	3,236	679
Hospitality and Tourism	1	428	114
Human Services	0	0	0
Information Technology	6	1,032	30
Law, Public Safety, Corrections & Security	8	594	105
Manufacturing	15	1,929	523
Marketing	0	0	0
Science, Tech, Engineering & Mathematics	4	776	128
Transportation, Distribution, and Logistics	30	2,301	297
<b>Totals</b>	<b>117</b>	<b>11,418</b>	<b>2,030</b>

### **Credentials Connected to High-Demand Industries**

Table 6, on the following page, provides the top 30 credentials ranked by their associated high-demand occupations (based on annual openings in the state of Iowa). In most cases, the number of credential-ready students in the related CTE programs is not sufficient to meet the annual job openings in the state. For example, the Iowa DOT commercial driving license (CDL) is connected to the most annual job openings of 4,461 heavy and tractor-trailer truck drivers, yet there are only 185 credential-ready students coming out of CTE credit programs. Fortunately, there are non-credit CDL programs preparing drivers as well, but the supply is still less than the demand, ensuring these potential CDL license-holders will have numerous employment opportunities.

**Table 6. Top 30 Credentials Associated with High-Demand Occupations (by Annual Openings)**

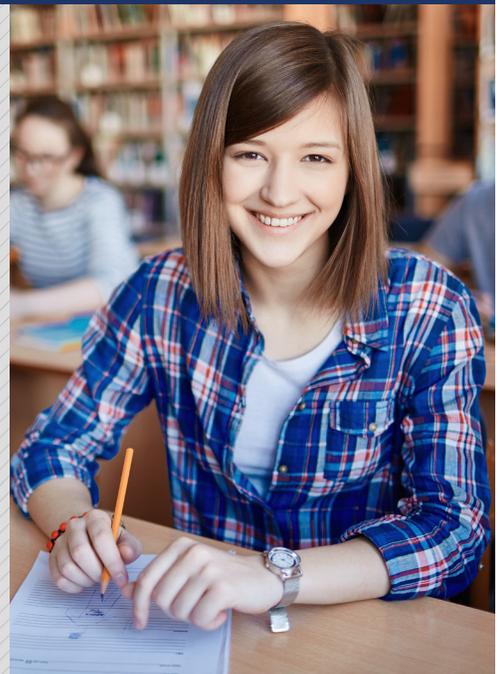
Credential	Students	Annual Openings	Associated Job Title
Iowa DOT Commercial Driver's License (CDL)	185	61	Heavy and Tractor-Trailer Truck Drivers
Iowa Certified Nurse Aide (75 hr-CNA)	1,056	2,593	Nursing Assistant
NCLEX Registered Nurse Exam (RN)	305	2,190	Registered Nurse
IDPH Adult Abuse Reporting	166	1,640	Childcare Workers
IDPH Mandatory Reporter Certificate	166	1,640	Childcare Workers
ServSafe (National Restaurant Association)	428	1,393	First-Line Supervisors of Food Preparation and Serving Workers
ASME Personnel Certification	283	1,353	First-Line Supervisors of Office and Administrative Support Workers
AWS Certified Welder	154	1,052	Welders, Cutters, Solderers, and Brazers
AWS SENSE1 Flux-Cored Arc Welding	154	1,052	Welders, Cutters, Solderers, and Brazers
AWS SENSE1 GMAW	154	1,052	Welders, Cutters, Solderers, and Brazers
AWS SENSE1 Orientation	154	1,052	Welders, Cutters, Solderers, and Brazers
AWS SENSE1 Safety and Health	154	1,052	Welders, Cutters, Solderers, and Brazers
AWS SENSE1 SMAW	154	1,052	Welders, Cutters, Solderers, and Brazers
AWS SENSE1 Symbol Interpretation	154	1,052	Welders, Cutters, Solderers, and Brazers
AWS SENSE1 Thermal Cutting Processes	154	1,052	Welders, Cutters, Solderers, and Brazers
NCLEX Licensed Practical Nurse Exam (LPN)	586	535	Licensed Practical Nurse
CompTIA A+	275	509	Computer User Support Specialists
MACS Air Conditioning Refrigerant Section 609 Certification	246	483	Heating, Air Conditioning, and Refrigeration Mechanics and Installers
DANB Certified Dental Assistant	127	418	Dental Assistant
ACI Concrete Flatwork Finisher and Technician	126	405	Cement Masons and Concrete Finishers
Pharmacy Technician Certification (CPHT) through the Certification Exam (PTCE) (Iowa Licensure through Iowa Board of Pharmacy)	139	396	Pharmacy Technician
CISCO Networking	244	261	Network and Computer Systems Administrators
CompTIA Network+	169	261	Network and Computer Systems Administrators
API Code (510 Standard) Pressure Vessel Inspector	226	85	Construction and Building Inspectors
CompTIA Security+	179	78	Information Security Analysts
Pediatric/Adult CPR; Heartsaver First Aid	353	*	Multiple
OSHA 10-Hour Construction	194	*	Multiple
OSHA 10-Hour General	194	*	Multiple
OSHA 30-Hour Construction	194	*	Multiple
USDOL Universal Precautions/Bloodborne Pathogens	194	*	Multiple

\* Training programs are designed to teach students specific areas of expertise, each making up a portion of the knowledge needed by students for employment. Most of these 30 certifications directly crosswalk to high-demand occupations one-to-one. However, there are some industry credentials that are required for multiple occupations, so the related job titles are marked as "Multiple" in the table. For example, the Occupational Safety and Health Administration (OSHA) 30-Hour Construction certification is needed for many different occupations within the construction industry and cannot be tied to a single job.

## Key Highlights for Joint Enrollment Students

The community college survey resulted in a list of 117 credentials that are aligned with CTE credit programs offered through Iowa's 15 community colleges. Of the 1,183 jointly enrolled students taking courses within these programs (Table 2 on page 5) 19 were enrolled in the 9th grade, 58 in the 10th grade, 315 in the 11th grade (26.6 percent), and 718 in the 12th grade (60.7 percent). Community college awards were granted to 336, or 28.4 percent, of these students (Table 3 on page 6); leaving a significant proportion of them (44.9 percent) reported as still enrolled in community college coursework. Among these jointly enrolled students, females outnumbered males 653 to 530 (55.2 percent). The vast majority of the students were white (923) while racial/ethnic minorities were reported by 178 students (15.0 percent). Another 6.9 percent of the students did not report their race or ethnicity.

These 1,183 jointly enrolled CTE students completed coursework that prepared them to earn up to 2,030 industry credentials (Table 2). Most of these potential industry credentials (PICs) were aligned to the nationally recognized career clusters of health science (33.4 percent) and manufacturing (25.8 percent). All of the jointly enrolled PICs are listed by career cluster in Table 5 on page 8. For more details on the type of credentials these students were prepared for, Table 7 on page 11 reports on the top 30 credentials and Appendix A contains all 117 of the reported credentials.



**Table 7. Top Credentials Associated with High Demand Occupations**

<b>Certification Options</b>	<b>JE Potential Students in 2018</b>
Iowa Certified Nurse Aide (75 hr-CNA)	464
Pediatric/Adult CPR; Heartsaver First Aid	169
ServSafe (National Restaurant Association)	114
ASME Personnel Certification	80
API Code (510 Standard) Pressure Vessel Inspector	75
NC3 Multimeter	67
DOL Apprenticeship: Construction	51
Pharmacy Technician Certification (CPhT) through the Certification Exam (PTCE) (Iowa Licensure through Iowa Board of Pharmacy)	46
AWS Certified Welder	45
AWS SENSE1 Flux-Cored Arc Welding	45
AWS SENSE1 GMAW	45
AWS SENSE1 Orientation	45
AWS SENSE1 Safety and Health	45
AWS SENSE1 SMAW	45
AWS SENSE1 Symbol Interpretation	45
AWS SENSE1 Thermal Cutting Processes	45
USDA Forklift Operator	38
MACS Air Conditioning Refrigerant Section 609 Certification	33
OSHA 10-Hour Construction	32
OSHA 10-Hour General	32
OSHA 30-Hour Construction	32
USDOL Universal Precautions/Bloodborne Pathogens	32
NC3 Ethos	24
NC3 Modis Scan Tool	24
NC3 Multimeter Certification (various models)	24
NC3 Snap-On Hand Tool Safety	24
NC3 Snap-On Torque (Hydraulic) Certification	24
NC3 Solus Ultra	24
NC3 Vantage Pro	24
FSTB Fire Fighter I	21
<b>Totals</b>	<b>1,814 (89.4%)</b>

### Recent Credential Data College Efforts

Because of the importance of earning third-party industry credentials to the occupational success of many Iowans, and industry's need for skilled workers, efforts to track student-earned credentials in Iowa community colleges have been ongoing. In AY 2013-14, non-credit annual reporting included third-party industry certification data, but without specificity. Colleges report "industry credential recipient" based on several criteria. As stated in the Community College MIS guide, these recipients are:

*Endorsed by a 3rd party certification or state/federal regulatory agency leading to or enhancing employment. Report students who meet one, two or all conditions: 1) a college reported a successfully completed program (no test required but competencies met) to the governing agency, when such a completion is the requirement for the governing agency to award the 3rd party credential or state board (e.g., Coaching Certificate/License); 2) a college administered the required test and then reported findings to the state governing agency that a student had successfully passed and the credential is then awarded to the student by the governing agency or state board (e.g., CNA License); 3) a college obtained information regarding students' 3rd party credentials from the governing agency, state board, or directly from the student. Include only initial certifications and do not include recertifications or relicensures.*

A separate summer 2018 survey of noncredit community college deans regarding the certifications that are being offered at the colleges confirmed that this reporting is accurate when conducted through the non-credit divisions of their institutions.

### Data Direct from Third-Party Organizations

Recent efforts by the Iowa Department of Education (Department) to partner with both the information technology organization, CompTIA, and the Iowa Board of Nursing, have resulted in further understanding of the credentials received by students in these industries and the impact/value of those credentials. In 2014, the Department signed a data-sharing agreement with CompTIA to analyze how the receipt of CompTIA certifications impacted student success, as measured by employment and occupational earnings. The data demonstrated that employees with the CompTIA credential had substantially higher wages one year after earning the certification as compared to one year prior. The value of this data-sharing agreement led the Department to seek relationships with other credentialing agencies.

In 2016, the Department and the Iowa Board of Nursing (IBON) reached an agreement whereby IBON would provide data on the attainment of Registered Nursing and Practical Nursing licensure by Iowa community colleges students, to include the dates that the students passed their NCLEX exams and the exam locations. This data continues to be received biannually and allows the Department to report accurate numbers on the industry credentials earned within the largest career cluster in the state, namely, Health Science.

In January 2019, a statewide data committee of community college institutional researchers was established to identify procedures to systematically collect information on verifiable industry credentials integrated into community college CTE credit programs. Since there are many types of credentials reported in the surveyed list, identifying and prioritizing them according to their value added to the students' educational experience will need to be done so they can define, collect, and categorize these credentials within a data collection system. A recommendation will then go to the MIS Steering Committee to determine future data collection attributes and processes. The goal is for all verifiable credentials be gathered in the next few years.

## Next Steps

The Department will continue to address third-party industry credential data collection needs and the implications of credential-earning on student success and the attainment of Iowa's Future Ready Iowa goal. Finding ways to verify, collect, and match credential data to student outcomes such as employment attainment and wages are critical components of measuring student success and should be included in the state's accountability system as part of educational outcome reporting. Additionally, incorporating and incentivizing credentials into community college programs of study will lead to an increase in student credential-readiness. Creating reliable processes to capture the actual numbers of third-party industry credentials earned by individuals across the state will benefit training programs, industry credential-providers, and employers.

## Implications for Future Research

Future research implications stemming from this report include the need to identify the most valuable third-party industry credentials earned by students across all career clusters, with or without academic award attainment. Additionally, qualitative research should spotlight some industry credential recipients regarding their employment outcomes as a follow-up.

Other questions for future research include:

1. Are some of the 16 career clusters missing potential credentials within Iowa's community college programs of study?
2. How are earning industry credentials and community college award achievement connected?
3. What college policies and programs can lead to more students becoming credential-ready through joint enrollment?
4. Are there required third-party credentials associated with high-demand industries in Iowa for which community college CTE programs are not preparing students?



### RESEARCH CONTACTS:

#### **Chris Russell, PhD**

Education Consultant  
Iowa Department of Education  
chris.russell@iowa.gov  
515-725-2247

#### **Vlad Bassis**

Education Consultant  
Iowa Department of Education  
vladimir.bassis@iowa.gov  
515-281-3671

## Appendix A: All Survey-Reported Credentials: Potential Industry Credential (PICs)

Certification Options	Total PICs (duplicated)	JE PICs (duplicated)	Left CC without Award
Iowa Certified Nurse Aide (75 hr-CNA)	1,056	464	185
NCLEX Licensed Practical Nurse Exam (LPN)	586	0	0
ServSafe (National Restaurant Association)	428	114	159
Pediatric/Adult CPR; Heartsaver First Aid	353	169	142
NCLEX Registered Nurse Exam (RN)	305	0	0
ASME Personnel Certification	283	80	71
CompTIA A+	275	16	18
MACS Air Conditioning Refrigerant Section 609 Certification	246	33	29
CISCO Networking	244	6	23
API Code (510 Standard) Pressure Vessel Inspector	226	75	57
OSHA 10-Hour Construction	194	32	29
OSHA 10-Hour General	194	32	29
OSHA 30-Hour Construction	194	32	29
USDOL Universal Precautions/Bloodborne Pathogens	194	32	29
Iowa DOT Commercial Driver's License (CDL)	185	6	40
CompTIA Security+	179	6	6
CompTIA Network+	169	1	9
IDPH Adult Abuse Reporting	166	0	31
IDPH Mandatory Reporter Certificate	166	0	31
AWS Certified Welder	154	45	14
AWS SENSE1 Flux-Cored Arc Welding	154	45	14
AWS SENSE1 GMAW	154	45	14
AWS SENSE1 Orientation	154	45	14
AWS SENSE1 Safety and Health	154	45	14
AWS SENSE1 SMAW	154	45	14
AWS SENSE1 Symbol Interpretation	154	45	14
AWS SENSE1 Thermal Cutting Processes	154	45	14
Pharmacy Technician Certification (CPhT) through the Certification Exam (PTCE) (Iowa Licensure through Iowa Board of Pharmacy)	139	46	55
DANB Certified Dental Assistant	127	0	1
ACI Concrete Flatwork Finisher and Technician	126	14	22
NC3 Multimeter	125	67	39
DOL Apprenticeship: Construction	109	51	59
NC3 Ethos	105	24	21
NC3 Modis Scan Tool	105	24	21
NC3 Multimeter Certification (various models)	105	24	21
NC3 Snap-On Hand Tool Safety	105	24	21
NC3 Snap-On Torque (Hydraulic) Certification	105	24	21
NC3 Solus Ultra	105	24	21
NC3 Vantage Pro	105	24	21
I-CAR Intro to Collision Repair Certification	103	0	16

**Appendix A: All Survey-Reported Credentials: Potential Industry Credential (PICs), cont.**

<b>Certification Options</b>	<b>Total PICs (duplicated)</b>	<b>JE PICs (duplicated)</b>	<b>Left CC without Award</b>
I-CAR Professional Development Program - Education Edition (PDP+EE)	100	0	16
Steel GMA Welding (WCS03)	100	0	16
NC3 Shopkey & Torque	95	15	15
NC3 Snap-On Torque Electrical Certification	95	15	15
NC3 Snap-On Torque Mechanical Certification	95	15	15
FSTB Fire Fighter I	91	21	15
FSTB Fire Investigation II	91	21	15
FSTB Fire Officer I	91	21	15
Iowa Pesticide Bureau Certified Pesticide Applicator	89	0	6
Microsoft Office Specialist (MOS)	83	0	7
CCNA Routing and Switching	82	1	4
FSTB Firefighter II	81	21	12
NIMS Machining Level I	80	8	18
FSTB Hazardous Materials I	75	21	11
Medical Administrative Assistant Exam (CMA-AAMA)	74	0	0
Pork Quality Assurance Certification (PQA)	70	1	7
NC3 Verus & Verdict Navigation	69	4	8
General Commercial Radio Operator's License (GROL)	66	0	3
USDA Forklift Operator	58	38	26
AHA Pediatric/Adult CPR	55	0	11
ECSI Wilderness First Aid	55	0	11
Heartsaver First Aid	55	0	11
Beef Quality Assurance Certification (BQA)	54	0	9
ASE Automatic Transmission/Transaxle (A2)	47	0	3
ASE Brakes (A5)	47	0	3
ASE Electrical/Electronic Systems (A6)	47	0	3
ASE Engine Performance (A8)	47	0	3
ASE Engine Repair (A1)	47	0	3
ASE Heating and Air Conditions (A7)	47	0	3
ASE Light Vehicle Diesel Engines (A9)	47	0	3
ASE Maintenance and Light Repair (MR)	47	0	3
ASE Manual Drive Train (A3)	47	0	3
ASE Painting and Refinishing (B2)	47	0	3
ASE Service Consultant Certification (C1)	47	0	3
ASE Suspension and Steering (A4)	47	0	3
AAVSB Certified Veterinary National Technician Exam (VTNE)	44	0	0
Certified Respiratory Therapist (CRT)	43	0	1
Registered Respiratory Therapist (RRT)	43	0	1
NWCG S-130/S-190 Wildland Firefighter	40	1	0
Certified Interpretive Guide (CIG)	36	1	0
Portland Cement Concrete Level 1	36	0	2
Portland Cement Concrete Level 2	36	0	2

**Appendix A: All Survey-Reported Credentials: Potential Industry Credential (PICs), cont.**

<b>Certification Options</b>	<b>Total PICs (duplicated)</b>	<b>JE PICs (duplicated)</b>	<b>Left CC without Award</b>
ARRT Certification Radiology ®	35	0	0
Snap-on Diesel Scanner Diagnostics Certification	32	0	6
ESCO Universal R-410A Safety and Training	31	0	2
Stationary HVACR Equipment (EPA608)	31	0	2
BOEE Coaching Authorization	30	12	1
CAPTE Physical Therapist Assistant Licensure	30	0	0
NC3 Torque	29	7	4
MSSC Safety, Quality Practices & Measurement (Certified Production Technician CPT)	20	0	1
National Board CST Surgical Technologist Certification	19	0	0
Certified Health Unit Coordinator (CHUC)	17	0	2
Registered Health Information Technician (RHIT)	15	0	0
Certified Solidworks Associate (CSWA)	14	0	0
EPA Universal Certification Type 1, 2 & 3	14	3	0
NBCOT Occupational Therapy Assistant Certification	12	0	0
AHDI Registered/Certified Health Documentation Specialist	11	0	0
Certified Coding Associate (CCA)	9	0	0
Certified Crop Advisor (CCA)	8	0	0
Certified Medical Laboratory Technician (MLT-ASCP)	8	0	0
IABME Boiler Operator Certification	8	0	1
NC3 Precision Measure Instruments	8	0	2
Advanced Emergency Medical Technician (AEMT)	6	0	0
DOL Apprenticeship: Plumbing	6	0	0
Emergency Medical Technician (EMT)	6	0	0
I-CAR Oxyacetylene/Plasma Arc Cutting WCS05	6	0	0
IDPH Paramedic Specialist License	6	0	0
LEED certification	6	0	1
Electroneurodiagnostic Technician (EEG)	4	0	0
DOL Apprenticeship: Electrical	2	0	0
ESCO Group Air Conditioning	2	0	0
ESCO Group Electric Heat Certification	2	0	0
ESCO Group Gas Heat	2	0	0
Child Development Associate (CDA)	1	0	0
DOL Apprenticeship: HVAC	1	0	0
DOL Apprenticeship: Sheetmetal	1	0	0
Iowa DNR ATV Safety	1	0	0