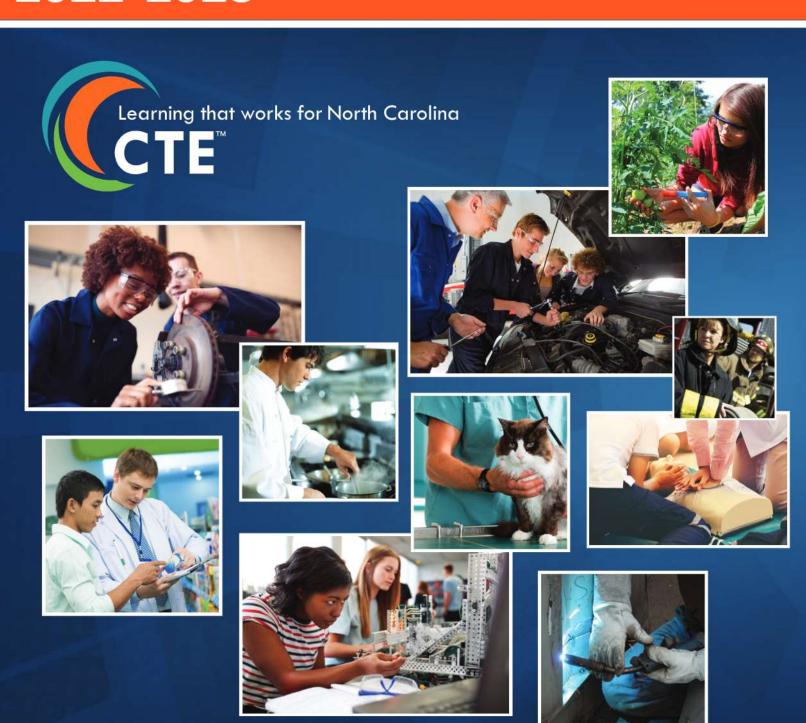
NORTH CAROLINA CAREER AND TECHNICAL EDUCATION

# Credential Attainment Report

2022-2023



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# 2022-2023 Credential Attainment Report North Carolina Career and Technical Education

December 2J23

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Special thanks to all NC CTE consultants, teachers, support staff, and administrators who supported, encouraged, and inspired students to earn the credentials reflected through the data compiled in this report.

#### **EXECUTIVE SUMMARY**

# Credentials in North Carolina Secondary Career and Technical Education (CTE)

Industry certifications and credentials are offered through multiple CTE courses. Credentials recognized by NC CTE are a valid proof of learning typically endorsed by business and industry partners and provide documentation for student mastery of skills required for employment and advancement in a career.

North Carolina CTE experienced a steady increase in credential attainment between academic years 2010-2011 and 2018-2019; however, a two-year decline began in spring 2020 and can be directly related to three distinct factors.

- The COVID-1° pandemic negatively impacted credential data administration and reporting.
- The new Strengthening Career and Technical Education for the 21<sup>st</sup> Century Act (Perkins V) required pathway realignments with a more focused definition of recognized credentials.
- The exclusion of ACT WorkKeys® credentials in the total count of credentials reduced the overall attainment count. Only credentials aligned to CTE courses are included in the attainment data. However, WorkKeys data is provided separately in the report

The trend has shifted to consistent increases since the 2020-2021 school year. The 2022 2023 academic year saw 325,784 individual credentials earned and reported statewide, which represents the highest attainment over the 13 years NC CTE has collected and reported industry recognized credentials.

#### Credential Potential

During the 2021-2022 academic year, NC CTE initiated a transition to the concept of *Credential Potential*. Credential Potential is the total number of credentials available to students in a Public School Unit (PSU). PSU CTE leadership is encouraged to establish a goal for the percentage of the PSU Credential Potential to achieve each year. Many factors impact a PSU's possible Credential Potential attainment.

- Courses that offer multiple credentials for the same content, such as Career Management, will reasonably only see attainment with one of the available credentials,
- Credentials that are in the process of being implemented for the first time in a PSU may see lower attainment until fully implemented, and
- Students who take a course over multiple semesters typically attempt the credential during the last portion of the course.

#### **Data Collection**

Educators and business and industry representatives recommend credentials each year that are aligned to the CTE curriculum and valued by employers. Proposed credentials are researched to ensure they meet requirements for reporting.

Credential attainment data was collected for each student and matched to enrollment information. Much of the NC CTE credential attainment data was collected directly from the credentialing agency. Additional results were collected from students using third-party software. Care was taken to protect the confidentiality of student information during the collection and analysis process.

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#### INTRODUCTION

Of adults ages 25 and older, 41% have no more than a high school education, contributing to the talent shortage across multiple industries in the United States (Hawkins, 2019). Career pathways through CTE programs should include options for dual-enrollment, work-based learning, and credentialing (Meeder, 2016). Industry-recognized credentials are of utmost importance today, providing labor market currency and serving as opportunities for economic momentum for high school students, especially for underserved students (Education Strategy Group et al., 2018). Reforms to state policies are aimed at increasing the number of students earning credentials and certificates, at both the high school and community college level (Guth, 2017). High-quality CTE programs include qualified educators with strong understanding of industry trends, work-site learning experiences for students, and student access to industry-recognized credentialing opportunities (Gordon & Schultz, 2020). The benefits of students earning industry-recognized credentials include aspects impacting the students, businesses, and communities. For students, industry-recognized credentials offer long-term financial benefits through increased wages and long-term earnings (Dougherty, 2018).

Additionally, benefits to students go beyond monetary impact and include positive increases in psychological characteristics, such as increased feelings of self-worth (Dougherty, 2018). Students who earn industry-recognized credentials build capacity for the completion of tasks and develop a relational connection between an investment of time and work to positive outcomes. For businesses that hire credentialed students, the benefits include reductions in on-the-job training costs and employees with value-added skill sets (Fletcher & Tyson, 2017). When students enter the workforce with industry-recognized credentials, businesses save the resources of time and money needed to provide credentials to new employees. For communities, positive credentialing data communicates a value in workforce skills and contributes to the economic well-being of the community by drawing future industries to the area (Education Strategy Group et al., 2018).

For this report, industry-recognized credentials are identifying credentials that serve as validations of qualifications demonstrated by individuals and are used to verify specific technical competencies or capabilities aligned to industry needs (Murawski, 2019). A credential can be based on a written, oral, or performance-based examination, or a combination of the three, and may require supervised work-based learning experience in addition to successfully passing the credentialing exam. Credentials differ from licenses, which are generally issued by a governmental entity. Licenses frequently are required for a practitioner to enter a field, while credentials help potential employees get hired or qualify them for a higher pay level but are not legally mandated.

#### **Trend Data**

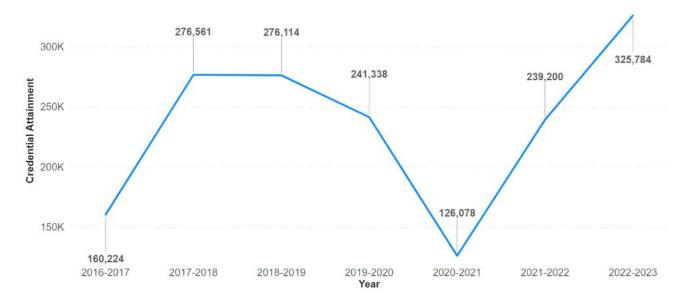
Across North Carolina, CTE students have earned and reported 2,251,798 credentials since 2010-2011. Of that number, 325,784 were earned and reported during the 2022-2023 academic school year. The chart below depicts the trend data from the 2016-2017 academic year through the 2022-2023 academic year.

- The sharp increase in credentials reported from 2016-2017 to 2017-2018 is attributed to the reporting of individual credentials in courses with combined credentials. (See course list with individual to combined crosswalk beginning on page 5.)
- The slight decrease in credentials reported from 2018-2019 to 2019-2020 is attributed to the initial impact of COVID-19 and the transition to virtual instruction in March 2020.

- The decrease in credentials reported during 2020-2021 is attributed to the continued impact of COVID-19 and virtual instruction, the realignment of pathways and credentials due to changes associated with the Strengthening Career and Technical Education for the 21<sup>st</sup> Century Act (Perkins V), and the decision to no longer include WorkKeys results in the overall credential attainment number. WorkKeys results are reported through the Office of Accountability and Testing. While WorkKeys is an important Career Readiness Credential offered to CTE Concentrators, it is not aligned to a specific CTE course. Beginning in 2020-2021, all individual credentials reported are aligned with NC CTE courses.
- The increase in credentials reported in 2021-2022 is attributed to the return to in-person instruction as a transition through COVID-19 and increased credential funding provided by the North Carolina General Assembly.
  - In 2020-2021 and prior years, local districts received approximately 10% of the needed funding to offer all students credentialing opportunities.
  - In 2021-2022, funding increased to accommodate approximately 43% of the funding needed to offer all students the opportunity to earn credentials aligned with their CTE courses.
  - During the 2022-2023, the funding once again increased, reaching \$15.8 million, and local districts were funded over 98% of the needed amount to offer all students the opportunity to earn credentials aligned with their CTE courses. As a result, 41% of available credentials were earned and reported. This is an increase of 13-percentage points from the 28% credential attainment achieved in 2021-2022.

# NC CTE Credential Attainment by Year

2016-2017 through 2022-2023



#### STATEWIDE RESULTS OVERVIEW

The 333 individual credentials available to students across North Carolina in 2022-2023 measured workplace readiness skills or indicated proficiency in career-specific skills. Credentials related to workplace readiness skills represent general job skills applicable to many different careers such as Microsoft Office Specialist (MOS) certifications in MOS Word, MOS Excel, MOS PowerPoint, and MOS Access. Examples of credentials that are indicative of career-specific skills include the North Carolina Nurse Aide certificate and the Certified Veterinary Assistant certificate.

	2022-2023 Tier 1 Credentia Teacher Credential Payment=	
	Agricultural Education	<b>***</b>
Course Number	Course Title	Credential Name
AA21	Animal Science I	NC Beet Quality Assurance
AA21	Animal Science I	Youth for Qual Care of Animals-YO
AA22	Animal Science II	Animal Waste Certification
AA22	Animal Science II	NC Beef Quality Assurance
AA22	Animal Science II	Youth for Qual Care of Animals-YO
AN51	Natural Resources I	NC .Hunter Safety Course
AN52	Natural Resources II	NC Hunter Safety Course
AS31	Agricultural Mechanics I	Natl SafeTractor and Machinery O
AS31	Agricultural Mechanics I	OSHA 10-Hr Industry Cert - Ag
AS32	Agricultural Mechanics II	Natl SafeTractor and Machinery O
AS32	Agricultural Mechanics II	OSHA 10-Hr Industry Cert - Ag
AU10	Agriscience Applications	Natl SafeTractor and Machinery O
AU10	Agriscience Applications	NC Hunter Safety Course
AU11	Agricultural Production I	Natl SafeTractor and Machinery O
AU11	Agricultural Production I	NC Beef Quality Assurance
AU11	Agricultural Production I	Youth for Qual Care of Animals-YO
AU12	Agricultural Production II	NC Beef Quality Assurance
AU12	Agricultural Production II	Youth for Qual Care of Animals-Yo
AU22	Sustainable Agriculture Production	II Certified Level Seekeeper
	Business, Finance, and Marketing	Education
Course Number	Course Title	Credential Name
CS12	Project Management II	PMI Project Management Ready C
ME11	Entrepreneurship I	Venture Entrepreneurial Expedition
ME12	Entrepreneurship II	Entrepreneurship and Small Busin
ME12	Entrepreneurship II	Venture Entrepreneurial Expedition
	Career Development Educa	tion
Course Number	Course Title	Credential Name
CC45	Career Management	Conover-Workplace Readiness (CCWR)
CC45	Career Management	Microburst Soft Skills for Success
CC45	Career Management	Express Employment Prof Career

•	mputer Science and Information Techn	ology Education
Course Number	Course Title	Credential Name
BM10	Microsoft Word and PowerPoint	MOS 2019 or above PowerPoint
BM10	Microsoft Word and PowerPoint	MOS 2019 or above Word
BM20	Microsoft Excel	MOS 2019 or above Excel Core
	Family and Consumer Sciences E	ducation
Course Number	Course Title	Credential Name
FA32	Apparel and Textile Production II	PrePAC in Fash Textile and Appare
FC14	Counseling and Mental Health II	PrePAC in Family and Commun Sr
FE11	Early Childhood Education I	CPR
FE11	Early Childhood Education I	First Aid
FE12	Early Childhood Education II	CPR
FE12	Early Childhood Education II	First Aid
FH13	Culinary Arts and Hospitality III	PrePAC in Culinary Arts
FI22	Interior Design Studio	PrePAC in Interior Design Fndmntls
FN41	Food and Nutrition I	ANSI-Accredited Food Handler Cer
FN42	Food and Nutrition II	PrePAC in Nutrition Food Wellness
FN43	Food Science and Technology	PrePAC in Food Science Fundame
10.30 PM (1034.)	Health Science Education	
Course Number	Course Title	Credential Name
HB12	Biomedical Technology II	OSHA 10-Hr Industry Cert - Hithcar
HP71	PLTW Human Body Systems	CPR/AED
HP71	PLTW Human Body Systems	First Aid
HP71	PLTW Human Body Systems	Stop the Bleed
HU40	Health Science I	First Aid
HU42	Health Science II	CPR/AED
HU42	Health Science II	OSHA 10-Hr Industry Cert - Hithcar
HU42	Health Science II	Stop the Bleed
Tra	ide, Technology, Engineering, and Indu	strial Education
Course Number	Course Title	Credential Name
IC00	Construction Core	OSHA 10-Hr Construction Cert
ID11	Drone Technology I	NCDOT NC UAS Operator Permit
ID12	Drone Technology II	Esri Drone2Map
IM11	Advanced Manufacturing I	OSHA 10-Hr Industry Cert - Mfg
IM21	Woodworking I	OSHA 10-Hr Construction Cert
000/4000000000000000000000000000000000	Woodworking II	OSHA 10-Hr Construction Cert
IM22		
IM22 IM61	Welding Technology I	OSHA 10-Hr Construction Cert

#### Individual Credentials and Combined Credentials

Credentials are reported in two distinct categories, individual and combined. Individual credentials include specific modules within a larger credential. An example of individual credentials that create a combined credential is Conover Workplace Readiness which is aligned to CC45-Career Management. There are eight individual modules that each count as an individual credential and, when all eight are successfully earned, join to make a combined credential. When reporting these credentials, a student who earns the credential for all modules would count as eight individual credentials and one combined credential. Individual credentials that form combined credentials were earned in 22 CTE courses as shown in the following table.

2022-2023 Individual to Combined Credentials Crosswalk and Attainment				
Course Name	Course Code-Individual Credential Name	Individual Credentials Earned	Combined Credentials Name	Combined Credentials Earned
	CC45-CCWR-Career Mgmt- Attitude	5,665		
	CC45-CCWR-Career Mgmt- Comm	6,323		
	CC45-CCWR-Career Mgmt- Crit Thinkng	5,244	Conover	
Career	CC45-CCWR-Career Mgmt- Int/Soc Skls	6,197	Credential	
Management	CC45-CCWR-Career Mgmt- Media Rules	6,305	Workplace	4,381
	CC45-CCWR-Career Mgmt- Plan/Org	5,544	Readiness	
	CC45-CCWR-Career Mgmt- Professional	5,212		
	CC45-CCWR-Career Mgmt- Teamwork	6,263		
	IC00-NC NCCER Module 00101 (w PP)	8,404		
	IC00-NC NCCER Module 00102 (w PP)	8,473		6,375
	IC00-NC NCCER Module 00103 (w PP)	7,797	NC NCCER	
Construction	IC00-NC NCCER Module 00104 (w PP)	7,880	=	
Core	IC00-NC NCCER Module 00105 (w PP)	7,816	Construction	
	IC00-NC NCCER Module 00107 (w PP)	8,651	Core	
	IC00-NC NCCER Module 00108	9,488		
	IC00-NC NCCER Module 00109 (w PP)	8,204		
	IC21-NC NCCER Module 27101	3,669		
	IC21-NC NCCER Module 27102 (w PP)	3,007		
	IC21-NC NCCER Module 27103 (w PP)	3,030	NC NCCER	
Carpentry I	IC21-NC NCCER Module 27104 (w PP)	2,793	- Carpentry I	2,135
	IC21-NC NCCER Module 27105 (w PP)	2,704	- Carpentry I	
	IC21-NC NCCER Module 27110 (w PP)	2,629		
	IC21-NC NCCER Module 27111 (w PP)	2,743		
	IC22-NC NCCER Module 27109 (w PP)	1,192		
	IC22-NC NCCER Module 27112 (w PP)	1,185	NC NCCER	
Carpentry II	IC22-NC NCCER Module 27202 (w PP)	1,205	- Carpentry II	841
	IC22-NC NCCER Module 27203 (w PP) 1,064		Carpentry	041
	IC22-NC NCCER Module 27204 (w PP)	1,161		

	IC23-NC NCCER Module 27201 (w PP)	182	Ť	
Carpentry III	IC23-NC NCCER Module 27205 (W PP)	176		
	IC23-NC NCCER Module 27205 (WTT)	169	NC NCCER	
	IC23-NC NCCER Module 27207 (W PP)	166	- Carpentry	123
	IC23-NC NCCER Module 27207 (W PP)	140	— III	120
		151	:-	
	IC23-NC NCCER Module 27210 (w PP)			
	IC41-NC NCCER Module 26101	770		
	IC41-NC NCCER Module 26102 (w PP)	612		
	IC41-NC NCCER Module 26103	730	NC NCCER	
Electrical	IC41-NC NCCER Module 26104	624	- Electrical	101
Trades I	IC41-NC NCCER Module 26105 (w PP)	570	Trades I	401
	IC41-NC NCCER Module 26106 (w PP)	597		
	IC41-NC NCCER Module 26107 (w PP)	545		
	IC41-NC NCCER Module 26108 (w PP)	551		
	IC42-NC NCCER Module 26109 (w PP)	232		
	IC42-NC NCCER Module 26110 (w PP)	217		
	IC42-NC NCCER Module 26111 (w PP)	218	NC NCCER	153
Electrical	IC42-NC NCCER Module 26112 (w PP)	232	- Electrical	
Trades II	IC42-NC NCCER Module 26201	258	Trades II	
	IC42-NC NCCER Module 26202 (w PP)	183		
	IC42-NC NCCER Module 26203 (w PP)	209		
	IC42-NC NCCER Module 26209 (w PP)	202		
	IC43-NC NCCER Module 26204 (w PP)	10		
	IC43-NC NCCER Module 26205 (w PP)	11		
E	IC43-NC NCCER Module 26206 (w PP)	11	NC NCCER	
Electrical	IC43-NC NCCER Module 26207 (w PP)	10	- Electrical	9
Trades III	IC43-NC NCCER Module 26208 (w PP)	9	Trades III	
	IC43-NC NCCER Module 26210 (w PP)	11		
	IC43-NC NCCER Module 26211 (w PP)	11		
	IL55-NC NCCER Module 03101	85		
	IL55-NC NCCER Module 03102	77		
	IL55-NC NCCER Module 03103 (w PP)	85		
	IL55-NC NCCER Module 03104 (w PP)	70		44
HVAC/R I	IL55-NC NCCER Module 03105 (w PP)	57	NC NCCER	
	IL55-NC NCCER Module 03106 (w PP)	66	- HVAC/R I	
	IL55-NC NCCER Module 03107 (w PP)	72		
	IL55-NC NCCER Module 03108 (w PP)	59		
	IL55-NC NCCER Module 03109 (w PP)	63		
	IL56-NC NCCER Module 03205 (W PP)	8		
	IL56-NC NCCER Module 03206 (w PP)	9		
		6	NC NCCEP	
HVAC/R II	IL56-NC NCCER Module 03210 (w PP)		NC NCCER - HVAC/R II	4
	IL56-NC NCCER Module 03211 (w PP)	8		7
	IL56-NC NCCER Module 03301 (w PP)	4		
	IL56-NC NCCER Module 03311 (w PP)	6		

	IC11-NC NCCER Module 28101 (w PP)	1,137		
	IC11-NC NCCER Module 28102 (w PP)	1,048		
Macannyl	IC11-NC NCCER Module 28103 (w PP)	1,027	NC NCCER	
Masonry I	IC11-NC NCCER Module 28104 (w PP)	1,054	- Masonry I	789
	IC11-NC NCCER Module 28105 (w PP)	929		
	IC11-NC NCCER Module 28106 (w PP)	1,096		
	IC12-NC NCCER Module 28201 (w PP)	463		
Massamull	IC12-NC NCCER Module 28202 (w PP)	460	NC NCCER	
Masonry II	IC12-NC NCCER Module 28203 (w PP)	438	- Masonry II	377
	IC12-NC NCCER Module 28204 (w PP)	436		
	IC13-NC NCCER Module 28205 (w PP)	120		
Masonry III	IC13-NC NCCER Module 28206 (w PP)	120	NC NCCER	100
	IC13-NC NCCER Module 28207 (w PP)	113	- Masonry III	108
	IL58-NC NCCER Module 02101	24		
	IL58-NC NCCER Module 02102 (w PP)	18		
	IL58-NC NCCER Module 02103 (w PP)	18		
	IL58-NC NCCER Module 02104 (w PP)	18		
722 ONE 1	IL58-NC NCCER Module 02105 (w PP)	17	NC NCCER	
Plumbing I	IL58-NC NCCER Module 02106 (W PP)	18	- Plumbing I	14
	IL58-NC NCCER Module 02107 (w PP)	17		
	IL58-NC NCCER Module 02108 (w PP)	18	<del>-</del>	
	IL58-NC NCCER Module 02109 (w PP)	15	<del>-</del>	
	IL58-NC NCCER Module 02110 (w PP)	16	1	
	IL59-NC NCCER Module 02111 (w PP)	11		
	IL59-NC NCCER Module 02112 (w PP)	12	-	
	IL59-NC NCCER Module 02201 (w PP)	12	<del>-</del>	
	IL59-NC NCCER Module 02202 (w PP)	11	NC NCCER	
Plumbing II	IL59-NC NCCER Module 02203 (w PP)	12	- Plumbing II	9
	IL59-NC NCCER Module 02204 (w PP)	10		
	IL59-NC NCCER Module 02205 (W PP)	9	<del>- </del>	
	IL59-NC NCCER Module 02207 (w PP)	11	<del>-</del>	
	IM61-AWS SENSE Mod 8: Thermal Cut	91	AWS	
Welding Technology I	INTO 1-AVV3 SENSE IVIOU 6. THEITHAI CUI	31	SENSE Entry Welder Program - Thermal Cutting	81
	IM61-AWS SENSE Module 2: Safety	120	Process	
	IM62-AWS SENSE Mod 3: Draw and Weld	132	AWS SENSE Entry Welder	
Welding Technology II	IM62-AWS SENSE Mod 9: Inspect Test	118	Program - Shielded	21
	IM62-AWS SENSE Module 4: SMAW	101	Metal Arc Welding (SMAW)	

	IP11-NIMS (DHS/FEMA) IS-100	3,874	National	
Public Safety I	IP11-NIMS (DHS/FEMA) IS-200	3,757	Incident	
	IP11-NIMS (DHS/FEMA) IS-700	3,846	Management	3,213
	IP11-NIMS (DHS/FEMA) IS-800	3,560	System	
	IP31-NCOSFM FF Fire Ops 1 FIP 3041	686	NOODEN	
Firefighter	IP31-NCOSFM FF Fire Ops 2 FIP 3042	658	NCOSFM Credential -	291
Technology I	IP31-NCOSFM FF Fire Ops 3 FIP 3043	617	Firefighter	
redifficiogy i	IP31-NCOSFM FF Fire Ops 4 FIP 3044	435	Technology I	201
	IP31-NCOSFM FF Gen and Com FIP 3040	546	. comising y	
	IP32-NCOSFM Emerg Med Care FIP 7001	318	NOODEN	
Firefighter	IP32-NCOSFM FF Fire Ops 5 FIP 3045	334	NCOSFM -	
Technology II	IP32-NCOSFM FF Fire Ops 6 FIP 3046	359	Firefighter Technology	176
reciniology ii	IP32-NCOSFM FF Fire Ops 7 FIP 3047	310	II	
	IP32-NCOSFM FF Fire Ops 8 FIP 3048	248	\$160-C	
	IP33-FF Fire and Life Saf FIP 3051	156	NICOCENA	77
Firefighter	IP33-FF RIC Mayday Saf Sur FIP 6413	150	NCOSFM - Firefighter	
Technology III	IP33-NCOSFM FF Rescue Ops1 FIP 3050	168	Technology	
rediffology in	IP33-NCOSFM HM Ops FIP 3556	105		
	IP33-NCOSFM TIMS FIP 7000	185	#1450 #	
	IP51-NC Emergency Mgmt I IS-120	122		97
	IP51-NC Emergency Mgmt I IS-2200	119		
	IP51-NC Emergency Mgmt I IS-230	123		
	IP51-NC Emergency Mgmt I IS-235	125		
	IP51-NC Emergency Mgmt I IS-240	122		
Emergency	IP51-NC Emergency Mgmt I IS-241	122	NC Emergency	
Management	IP51-NC Emergency Mgmt I IS-242	120	Emergency Management	
l	IP51-NC Emergency Mgmt I IS-244	122	I Certification	
	IP51-NC Emergency Mgmt I IS-288	121	- Tooranoadon	
	IP51-NC Emergency Mgmt I IS-559	113		
	IP51-NC Emergency Mgmt I IS-703	119		
	IP51-NC Emergency Mgmt I IS-706	120		
	IP51-NC Emergency Mgmt I IS-909	124		

#### **Credential Tiers**

NC CTE partners with the NC Department of Commerce for the assignment of tier ranking to each industry-recognized credential. Consideration is given to academic rigor, employment value, and industry demand as part of the credential tier assignment process.

- Tier 1 credentials, considered foundational certifications, offer students the opportunity to experience the process of earning an industry-recognized credential and establish a starting point for earning additional, stackable credentials.
- Tier 2 credentials are springboard or door-opener certifications which are sometimes included in industry vacancy notices and potentially provide an advantage for students when seeking employment in a related career. Teachers are awarded a \$25.00 bonus for each Tier 2 credential earned by students enrolled in their courses.
- Tier 3 credentials are advanced certifications which are often required for employment and used to leverage higher starting and long-term salaries for employees. Teachers are awarded a \$50.00 bonus for each Tier 3 credential earned by students enrolled in their courses.

The table below shows combined credentials aligned to courses by program area and tier classification.

#### NC CTE 2022-2023 Credentials Available by Tiers

-	2022-2023 Tier 1 Credentials Teacher Credential Payment=\$0.00			
	Agricultural Education			
Course Number	Course Title	Credential Name		
AA21	Animal Science I	NC Beef Quality Assurance		
AAZI	Allimai Science i	Youth for the Quality Care of Animals (YQCA) Certification		
		National Beef Quality Assurance Cow/Calf Certification		
AA22	Animal Science II - Food Animal	National Beef Quality Assurance Feedyard Certification		
AAZZ	Allillai Science II - Food Allillai	NC Beef Quality Assurance		
		Youth for the Quality Care of Animals (YQCA) Certification		
AN51	Natural Resources I	NC Hunter Safety Course		
AN52	Natural Resources II	NC Hunter Safety Course		
AS31	Agricultural Mechanics I	National SafeTractor and Machinery Operation Certification		
ASSI		OSHA 10-Hour General Industry (Agriculture) Certification		
AS32	Agricultural Mechanics II	National SafeTractor and Machinery Operation Certification		
A332	Agricultural Mechanics II	OSHA 10-Hour General Industry (Agriculture) Certification		
AU10	Agriscience Applications	National SafeTractor and Machinery Operation Certification		
AUTU	Agriscience Applications	NC Hunter Safety Course		
		Youth for the Quality Care of Animals (YQCA) Certification		
AU11	Agricultural Production I	National SafeTractor and Machinery Operation Certification		
	- 25	NC Beef Quality Assurance		
AU12	Agricultural Production II	Youth for the Quality Care of Animals (YQCA) Certification		
A012	Agricultural Froduction II	NC Beef Quality Assurance		
AU22	Sustainable Agriculture Production II	Certified Level Beekeeper		
	Business, Finan	ce, and Marketing Education		
Course Number	Course Title	Credential Name		
CS12	Project Management II	PMI Project Management Ready Certification		

ME11	Entrepreneurship I	√enture Entrepreneurial Expedition	
ME12	Entrepreneurship II	Entrepreneurship and Small Business Certification Exam	
IVILIZ	Littlebreneursnip ii	Venture Entrepreneurial Expedition	
	Career	Development Education	
Course Number	Course Title	Credential Name	
		Conover Credential Workplace Readiness	
CC45	Career Management	Express Employment Prof Career Preparedness Cert	
		Microburst Soft Skills for Success	
	Computer Science a	nd Information Technology Education	
Course Number	Course Title	Credential Name	
BM10	Microsoft Word and PowerPoint	Microsoft Office Specialist 2019 or above PowerPoint	
DIVITO	WICIOSOIL WOLD AND FOWELFOILL	Microsoft Office Specialist 2019 or above Word	
BM20	Microsoft Excel	Microsoft Office Specialist 2019 or above Excel Core	
	Family and C	onsumer Sciences Education	
Course Number	Course Title	Credential Name	
FA32	Apparel and Textile Production II	Pre-PAC in Fashion, Textiles, and Apparel	
FC14	Counseling and Mental Health II	Pre-PAC in Family and Community Services	
FE11	Early Childhood Education I	CPR/AED	
FEIT	Early Childridod Education i	First Aid	
FE12	Early Childhood Education II	CPR/AED	
1 L 12	Larry Criticinood Education in	First Aid	
FE21	Teaching as a Profession I	Basic School Age Care (BSAC)	
FH13	Culinary Arts and Hospitality III	Pre-PAC in Culinary Arts	
FI22	Interior Design Studio	Pre-PAC in Interior Design Fundamentals	
FN41	Food and Nutrition I	ANSI-Accredited Food Handler Certificate	
FN42	Food and Nutrition II	Pre-PAC in Nutrition, Food, and Wellness	
FN43	Food Science and Technology	Pre-PAC in Food Science Fundamentals	
		General Education	
Course Number	Course Title	Credential Name	
CN97	NAFTrack Certification	NAFTrack	
	Heal	th Science Education	
Course Number	Course Title	Credential Name	
HB12	Biomedical Technology II	OSHA 10-Hour Industry Certification (Healthcare)	
HL21	Biomedical Innovations	OSHA 10-Hour Industry Certification (Healthcare)	
HP70	PLTW Principles of Biomedical Sciences	Stop the Bleed	
HP71	PLTW Human Body Systems	CPR/AED First Aid	
HU40	Health Science I	First Aid	
	The state of the s	OSHA 10-Hour Industry Certification (Healthcare)	
HU42	Health Science II	Stop the Bleed	
		COURTIN DIVOU	

Trade, Technology, Engineering, and Industrial Education				
Course Number	Course Title	Credential Name		
IC00	Construction Core	OSHA 10-Hour Construction Industry Certification		
ID10	Drone Technology Fundamentals	FAA Trust		
ID11	Drone Technology I	NCDOT NC UAS Operator Permit		
ID12	Drone Technology II	Esri Drone2Map		
IL53	Marine Occupations I	North Carolina Boater Education Certificate		
IM11	Advanced Manufacturing I	OSHA 10-Hour General Industry (Manufacturing) Certification		
IM21	Woodworking I	OSHA 10-Hour Construction Industry Certification		
IM22	Woodworking II	OSHA 10-Hour Construction Industry Certification		
IM61	Welding Technology I	OSHA 10-Hour Construction Industry Certification		
IIVIO I	Welding Technology I	S/P2 - Welding Safety and Pollution Prevention		
IP11	Public Safety I	Law and Public Safety Introductory Competency		
IP12	Public Safety II	Community Emergency Response Team (CERT)		
IP21	Emergency Medical Technology I	Basic Life Support		
IFZI	Emergency Medical Technology I	Stop the Bleed		
IP31	Firefighter Technology I	NCOSFM - Firefighter Technology I		
IP32	Firefighter Technology II	NCOSFM - Firefighter Technology II		
IP33	Firefighter Technology III	NCOSFM - Firefighter Technology III		
IT11	Automotive Service Fundamentals	S/P2 Automotive Service Pollution Prevention		
11.11	Automotive Service Fundamentals	S/P2 Automotive Service Safety		
IT30	Collision Repair Fundamentals	S/P2 Collision Repair and Refinish - Pollution Prevention		
1130	Collision Repair Fundamentals	S/P2 Collision Repair and Refinish Safety		
TE21	Principles of Technology I	OSHA 10-Hour Industry Certification		
TE22	Principles of Technology II	OSHA 10-Hour Industry Certification		

		23 Tier 2 Credentials edential Payment=\$25.00			
Agricultural Education					
Course Number	Course Title Credential Name				
AA23	Animal Science II-Companion Animal	Canine Care and Training Program (CCTP)			
AS33	Agricultural Mechanics II Small Engines  North Carolina Competency Certification				
	Business, Finan	ce, and Marketing Education			
Course Number	urse Course Title Credential Name				
BA10	Accounting I	Intuit Quickbooks Certified User			
BA20	Accounting II	Intuit Quickbooks Certified User			
MA52	Marketing Applications	Customer Service and Sales Certification			
IVIAJZ	Marketing Applications	Fundamental Marketing Concepts			
MH42	Hospitality and Tourism	Certified Guest Service Professional (CGSP)			
	Computer Science and	Information Technology Education			
Course Number	Course Title	Credential Name			
BN32	Network Security II	CompTIA Security+			

BP16	Python Programming II	PCAP Python Certified Associate	
	Introduction to Graphic		
IA11	Communications	PrintED Introduction to Graphic Communication	
IA13	Print Advertising and Design	PrintED Advertising and Design	
	F3 630	Adobe Certified Professional 2020 or above Illustrator	
IA32	Digital Media II	Adobe Certified Professional 2020 or above InDesign	
		Adobe Certified Professional 2020 or above Photoshop	
II12	Cisco Network Engineering Technology II	Cisco Certified Technician (CCT) Routing and Switching	
1141	Adobe Visual Design I	Adobe Certified Professional 2020 or above Illustrator	
	Adobe visdai besign i	Adobe Certified Professional 2020 or above Photoshop	
1142	Adobe Visual Design II	Adobe Certified Professional 2020 or above InDesign	
	Family and Cor	sumer Sciences Education	
Course Number	Course Title	Credential Name	
FH10	Culinary Arts and Hospitality I	ANSI-Accredited Food Protection Manager Certification	
FH11	Culinary Arts and Hospitality II App	ANSI-Accredited Food Protection Manager Certification	
FH12	Culinary Arts and Hospitality II Int	ANSI-Accredited Food Protection Manager Certification	
FN42	Food and Nutrition II	ANSI-Accredited Food Protection Manager Certification	
FN43	Food Science and Technology	Food Safety and Science Certification	
	Health	Science Education	
Course Number	Course Title	Credential Name	
The state of the s			
HN43	Nursing Fundamentals and Practicum	North Carolina Nurse Aide I	
HN43 HN44	Nursing Fundamentals and Practicum Fundamentals of Gerontology	North Carolina Nurse Aide I Nurse Aide I - Geriatric Aide Endorsement	
HN44	Fundamentals of Gerontology Public Health Fundamentals	Nurse Aide I - Geriatric Aide Endorsement	
HN44	Fundamentals of Gerontology Public Health Fundamentals	Nurse Aide I - Geriatric Aide Endorsement Nurse Aide I - Home Care Aide Endorsement	
HN44 HN45	Fundamentals of Gerontology Public Health Fundamentals Trade, Technology, Eng	Nurse Aide I - Geriatric Aide Endorsement Nurse Aide I - Home Care Aide Endorsement gineering, and Industrial Education	
HN44 HN45 Course Number	Fundamentals of Gerontology Public Health Fundamentals  Trade, Technology, Eng  Course Title	Nurse Aide I - Geriatric Aide Endorsement Nurse Aide I - Home Care Aide Endorsement gineering, and Industrial Education Credential Name	
HN44 HN45 Course Number IC00 IC11 IC12	Fundamentals of Gerontology Public Health Fundamentals  Trade, Technology, Eng  Course Title  Construction Core  Masonry I  Masonry II	Nurse Aide I - Geriatric Aide Endorsement Nurse Aide I - Home Care Aide Endorsement gineering, and Industrial Education  Credential Name  NC NCCER - Construction Core NC NCCER - Masonry I NC NCCER - Masonry II	
HN44 HN45 Course Number IC00 IC11 IC12 IC21	Fundamentals of Gerontology Public Health Fundamentals  Trade, Technology, Engage  Course Title  Construction Core  Masonry I  Masonry II  Carpentry I	Nurse Aide I - Geriatric Aide Endorsement Nurse Aide I - Home Care Aide Endorsement gineering, and Industrial Education  Credential Name  NC NCCER - Construction Core NC NCCER - Masonry I NC NCCER - Masonry II NC NCCER - Carpentry I	
HN44 HN45 Course Number IC00 IC11 IC12 IC21 IC22	Fundamentals of Gerontology Public Health Fundamentals Trade, Technology, Engage Course Title  Construction Core Masonry I Masonry II Carpentry I Carpentry II	Nurse Aide I - Geriatric Aide Endorsement  Nurse Aide I - Home Care Aide Endorsement  gineering, and Industrial Education  Credential Name  NC NCCER - Construction Core  NC NCCER - Masonry I  NC NCCER - Masonry II  NC NCCER - Carpentry I  NC NCCER - Carpentry II	
HN44 HN45 Course Number IC00 IC11 IC12 IC21 IC22 IC41	Fundamentals of Gerontology Public Health Fundamentals  Trade, Technology, Eng  Course Title  Construction Core  Masonry I  Masonry II  Carpentry I  Carpentry II  Electrical Trades I	Nurse Aide I - Geriatric Aide Endorsement  Nurse Aide I - Home Care Aide Endorsement  gineering, and Industrial Education  Credential Name  NC NCCER - Construction Core  NC NCCER - Masonry I  NC NCCER - Masonry II  NC NCCER - Carpentry I  NC NCCER - Carpentry II  NC NCCER - Electrical Trades I	
HN44 HN45 Course Number IC00 IC11 IC12 IC21 IC22 IC41 IC42	Fundamentals of Gerontology Public Health Fundamentals  Trade, Technology, Engage  Course Title  Construction Core  Masonry I  Masonry II  Carpentry I  Carpentry II  Electrical Trades I  Electrical Trades II	Nurse Aide I - Geriatric Aide Endorsement  Nurse Aide I - Home Care Aide Endorsement  gineering, and Industrial Education  Credential Name  NC NCCER - Construction Core  NC NCCER - Masonry I  NC NCCER - Masonry II  NC NCCER - Carpentry I  NC NCCER - Carpentry II  NC NCCER - Electrical Trades I  NC NCCER - Electrical Trades II	
HN44 HN45 Course Number IC00 IC11 IC12 IC21 IC22 IC41 IC42 IC42 IC61	Fundamentals of Gerontology Public Health Fundamentals  Trade, Technology, Engage  Course Title  Construction Core Masonry I Masonry II Carpentry I Carpentry II Electrical Trades I Electrical Trades II Drafting I	Nurse Aide I - Geriatric Aide Endorsement Nurse Aide I - Home Care Aide Endorsement gineering, and Industrial Education  Credential Name  NC NCCER - Construction Core NC NCCER - Masonry I NC NCCER - Masonry II NC NCCER - Carpentry I NC NCCER - Carpentry II NC NCCER - Carpentry II NC NCCER - Electrical Trades I NC NCCER - Electrical Trades II Autodesk Certified User AutoCAD	
HN44 HN45 Course Number IC00 IC11 IC12 IC21 IC22 IC41 IC42 IC42 IC61 IC71	Fundamentals of Gerontology Public Health Fundamentals  Trade, Technology, Engage  Course Title  Construction Core Masonry I Masonry II Carpentry I Carpentry II Electrical Trades I Electrical Trades II Drafting I Solar Photovoltaics I	Nurse Aide I - Geriatric Aide Endorsement Nurse Aide I - Home Care Aide Endorsement gineering, and Industrial Education  Credential Name  NC NCCER - Construction Core NC NCCER - Masonry I NC NCCER - Masonry II NC NCCER - Carpentry I NC NCCER - Carpentry II NC NCCER - Electrical Trades I NC NCCER - Electrical Trades II Autodesk Certified User AutoCAD NC NCCER - Solar Photovoltaics I	
HN44 HN45 Course Number IC00 IC11 IC12 IC21 IC22 IC41 IC42 IC61 IC71 ID11	Fundamentals of Gerontology Public Health Fundamentals  Trade, Technology, Engage  Course Title  Construction Core Masonry I Masonry II Carpentry I Carpentry II Electrical Trades I Electrical Trades II Drafting I Solar Photovoltaics I Drone Technology I	Nurse Aide I - Geriatric Aide Endorsement Nurse Aide I - Home Care Aide Endorsement gineering, and Industrial Education  Credential Name  NC NCCER - Construction Core NC NCCER - Masonry I NC NCCER - Masonry II NC NCCER - Carpentry I NC NCCER - Carpentry I NC NCCER - Carpentry II NC NCCER - Electrical Trades I NC NCCER - Electrical Trades II Autodesk Certified User AutoCAD NC NCCER - Solar Photovoltaics I CFR 14 Part 107 UAS Remote Pilot Certification	
HN44 HN45  Course Number IC00 IC11 IC12 IC21 IC22 IC41 IC42 IC61 IC71 ID11 ID12	Fundamentals of Gerontology Public Health Fundamentals  Trade, Technology, Engage  Course Title  Construction Core Masonry I Masonry II Carpentry I Carpentry II Electrical Trades I Electrical Trades II Drafting I Solar Photovoltaics I Drone Technology II Drone Technology II	Nurse Aide I - Geriatric Aide Endorsement Nurse Aide I - Home Care Aide Endorsement gineering, and Industrial Education  Credential Name  NC NCCER - Construction Core NC NCCER - Masonry I NC NCCER - Masonry II NC NCCER - Carpentry I NC NCCER - Carpentry II NC NCCER - Carpentry II NC NCCER - Electrical Trades I NC NCCER - Electrical Trades II Autodesk Certified User AutoCAD NC NCCER - Solar Photovoltaics I CFR 14 Part 107 UAS Remote Pilot Certification NFPA 2400	
HN44 HN45 Course Number IC00 IC11 IC12 IC21 IC22 IC41 IC42 IC61 IC71 ID11 ID12 IK68	Fundamentals of Gerontology Public Health Fundamentals  Trade, Technology, Engage  Course Title  Construction Core Masonry I Masonry II Carpentry I Carpentry I Electrical Trades I Electrical Trades II Drafting I Solar Photovoltaics I Drone Technology II Industrial Trade and Tech Apps	Nurse Aide I - Geriatric Aide Endorsement Nurse Aide I - Home Care Aide Endorsement gineering, and Industrial Education  Credential Name  NC NCCER - Construction Core NC NCCER - Masonry I NC NCCER - Masonry II NC NCCER - Carpentry I NC NCCER - Carpentry II NC NCCER - Carpentry II NC NCCER - Electrical Trades I NC NCCER - Electrical Trades II Autodesk Certified User AutoCAD NC NCCER - Solar Photovoltaics I CFR 14 Part 107 UAS Remote Pilot Certification NFPA 2400 Certified Manufacturing Associate (CMfgA)	
HN44 HN45 Course Number IC00 IC11 IC12 IC21 IC22 IC41 IC42 IC61 IC71 ID11 ID12 IK68 IL54	Fundamentals of Gerontology Public Health Fundamentals  Trade, Technology, Engage Course Title  Construction Core Masonry I Masonry II Carpentry I Carpentry II Electrical Trades I Electrical Trades II Drafting I Solar Photovoltaics I Drone Technology I Industrial Trade and Tech Apps Marine Occupations II	Nurse Aide I - Geriatric Aide Endorsement Nurse Aide I - Home Care Aide Endorsement gineering, and Industrial Education  Credential Name  NC NCCER - Construction Core NC NCCER - Masonry I NC NCCER - Masonry II NC NCCER - Carpentry I NC NCCER - Carpentry II NC NCCER - Carpentry II NC NCCER - Electrical Trades I NC NCCER - Electrical Trades II Autodesk Certified User AutoCAD NC NCCER - Solar Photovoltaics I CFR 14 Part 107 UAS Remote Pilot Certification NFPA 2400 Certified Manufacturing Associate (CMfgA) NC NCCER Maritime Pipefitting Level 1	
HN44 HN45 Course Number IC00 IC11 IC12 IC21 IC22 IC41 IC42 IC61 IC71 ID11 ID12 IK68 IL54 IL55	Fundamentals of Gerontology Public Health Fundamentals  Trade, Technology, Engage  Course Title  Construction Core Masonry I Masonry II Carpentry I Carpentry II Electrical Trades I Electrical Trades II Drafting I Solar Photovoltaics I Drone Technology I Drone Technology II Industrial Trade and Tech Apps Marine Occupations II HVAC/R I	Nurse Aide I - Geriatric Aide Endorsement Nurse Aide I - Home Care Aide Endorsement gineering, and Industrial Education  Credential Name  NC NCCER - Construction Core NC NCCER - Masonry I NC NCCER - Masonry II NC NCCER - Carpentry I NC NCCER - Carpentry II NC NCCER - Carpentry II NC NCCER - Electrical Trades I NC NCCER - Electrical Trades II Autodesk Certified User AutoCAD NC NCCER - Solar Photovoltaics I CFR 14 Part 107 UAS Remote Pilot Certification NFPA 2400 Certified Manufacturing Associate (CMfgA) NC NCCER - HVAC/R I	
HN44 HN45  Course Number IC00 IC11 IC12 IC21 IC22 IC41 IC42 IC61 IC71 ID11 ID12 IK68 IL54 IL55 IL56	Fundamentals of Gerontology Public Health Fundamentals  Trade, Technology, Engage Course Title  Construction Core Masonry I Masonry II Carpentry I Carpentry II Electrical Trades I Electrical Trades II Drafting I Solar Photovoltaics I Drone Technology I Drone Technology II Industrial Trade and Tech Apps Marine Occupations II HVAC/R I HVAC/R II	Nurse Aide I - Geriatric Aide Endorsement Nurse Aide I - Home Care Aide Endorsement gineering, and Industrial Education  Credential Name  NC NCCER - Construction Core NC NCCER - Masonry I NC NCCER - Masonry II NC NCCER - Carpentry I NC NCCER - Carpentry II NC NCCER - Carpentry II NC NCCER - Electrical Trades I NC NCCER - Electrical Trades II Autodesk Certified User AutoCAD NC NCCER - Solar Photovoltaics I CFR 14 Part 107 UAS Remote Pilot Certification NFPA 2400 Certified Manufacturing Associate (CMfgA) NC NCCER - HVAC/R I NC NCCER - HVAC/R II	
HN44 HN45  Course Number IC00 IC11 IC12 IC21 IC22 IC41 IC42 IC61 IC71 ID11 ID12 IK68 IL54 IL55 IL56 IL58	Fundamentals of Gerontology Public Health Fundamentals  Trade, Technology, Engage Course Title  Construction Core Masonry I Masonry II Carpentry I Carpentry II Electrical Trades I Electrical Trades II Drafting I Solar Photovoltaics I Drone Technology I Industrial Trade and Tech Apps Marine Occupations II HVAC/R II Plumbing I	Nurse Aide I - Geriatric Aide Endorsement Nurse Aide I - Home Care Aide Endorsement gineering, and Industrial Education  Credential Name  NC NCCER - Construction Core NC NCCER - Masonry I NC NCCER - Masonry II NC NCCER - Carpentry I NC NCCER - Carpentry II NC NCCER - Electrical Trades I NC NCCER - Electrical Trades II Autodesk Certified User AutoCAD NC NCCER - Solar Photovoltaics I CFR 14 Part 107 UAS Remote Pilot Certification NFPA 2400 Certified Manufacturing Associate (CMfgA) NC NCCER - HVAC/R I NC NCCER - HVAC/R II NC NCCER - Plumbing I	
HN44 HN45  Course Number IC00 IC11 IC12 IC21 IC22 IC41 IC42 IC61 IC71 ID11 ID12 IK68 IL54 IL55 IL56	Fundamentals of Gerontology Public Health Fundamentals  Trade, Technology, Engage Course Title  Construction Core Masonry I Masonry II Carpentry I Carpentry II Electrical Trades I Electrical Trades II Drafting I Solar Photovoltaics I Drone Technology I Drone Technology II Industrial Trade and Tech Apps Marine Occupations II HVAC/R I HVAC/R II	Nurse Aide I - Geriatric Aide Endorsement Nurse Aide I - Home Care Aide Endorsement gineering, and Industrial Education  Credential Name  NC NCCER - Construction Core NC NCCER - Masonry I NC NCCER - Masonry II NC NCCER - Carpentry I NC NCCER - Carpentry II NC NCCER - Carpentry II NC NCCER - Electrical Trades I NC NCCER - Electrical Trades II Autodesk Certified User AutoCAD NC NCCER - Solar Photovoltaics I CFR 14 Part 107 UAS Remote Pilot Certification NFPA 2400 Certified Manufacturing Associate (CMfgA) NC NCCER - HVAC/R I NC NCCER - HVAC/R II	

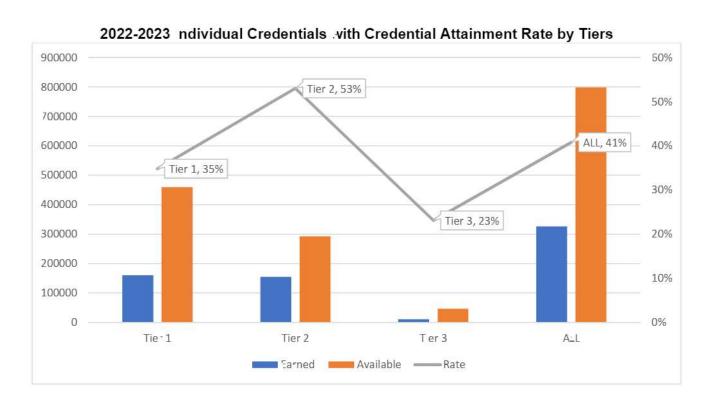
IM11	Advanced Manufacturing I	CPT - Safety		
IIVI I I	Advanced Manufacturing I	CPT- Maintenance Awareness		
IMAAO	Advanced Manufacturing II	CPT - Manufacturing Processes and Production		
IM12	Advanced Manufacturing II	CPT - Quality Practices and Measurement		
IM22	Woodworking II	Woodwork Career Alliance (WCA) Sawblade Certificate		
IM31	Electronics I	ETA EM1		
IM32	Electronics II	ETA EM4		
IM33	Electronics III	ETA EM2		
IM34	Electronics IV	ETA EM3		
IM41	Metals Manufacturing Technology I	NIMS Measurement, Materials, and Safety		
IM42	Metals Manufacturing Technology II	NIMS Job Planning, Benchwork, and Layout		
IM43	Metals Manufacturing Technology III	NIMS Milling I		
IM61	Welding Technology I	AWS SENSE Entry Welder Prog - Thermal Cutting Process		
IM63	Wolding Toobhology III	AWS SENSE Entry Welder Program - FCAW		
IIVIOS	Welding Technology III	AWS SENSE Entry Welder Program - GMAW		
IP11	Public Safety I	National Incident Management System		
IP12	Public Safety II	NECI 911 Basic Communications		
IP21	Emergency Medical Technology I	National Incident Management System		
IP42	Law and Justice II	Certified Protection Officer (CPO)		
IP51	Emergency Management I	NC Emergency Management I Certification		
IP52	Emergency Management II	NC Emergency Management II Certification		
IT17	Automotive Service II	ASE Entry-Level Certification - Maintenance and Light Repair		
IT17	Automotive Service II	ASE Entry-Level Certification-Brakes		
IT18	Automotive Service III	ASE Entry-Level Certification - Electrical/Electronic Systems		
IT33	Collision Repair II - Refinishing	ASE Entry-Level Certification - Painting and Refinishing		
IV22	Drafting II - Engineering	Autodesk Certified User Inventor		
IV22	Drafting II - Engineering	Certified SolidWorks Associate (CSWA)		

2022-2023 Tier 3 Credentials Teacher Credential Payment=\$50.00						
	Agricultural Education					
Course Number	Course Title	Credential Name				
AA32	Equine Science II	Equine Management and Evaluation Certification				
AA41	Veterinary Assisting	Certified Veterinary Assistant				
AA41	Veterinary Assisting	Elanco Veterinary Medical Applications Certification				
AP43	Horticulture II Turf Grass Management	NC Private Pesticide Applicator				
AS31	Agricultural Mechanics I	Certified Welders per Welding Code AWS D1.1				
AS32	Agricultural Mechanics II	Certified Welders per Welding Code AWS D1.1				
AU10	Agriscience Applications	Certified Welders per Welding Code AWS D1.1				
AU11	Agricultural Production I	Certified Welders per Welding Code AWS D1.1				
AU12	Agricultural Production II	NC Private Pesticide Applicator				
	Computer Science an	d Information Technology Education				
Course Number	Course Title	Credential Name				
BI12	CompTIA IT Fundamentals	CompTIA IT Fundamentals Plus				
BL52	Develop in Swift Explorations	App Development with Swift Associate				

BL53	Develop in Swift Fundamentals	App Development with Swift Certified User		
BM20	Microsoft Excel	Microsoft Office Specialist 2019 or above Excel Expert		
BM40	Database Essentials	Microsoft Office Specialist 2019 or above Access		
BN22	Network Administration II	CompTIA Network+ N10-008		
BP20	SAS Base Programming	SAS Certified Specialist Progrmg Funds - SAS 9.4		
IA32	Digital Madia II	Adobe Certified Professional 2020 or above Dreamweaver		
IAJZ	Digital Media II	Adobe Certified Professional 2020 or above Premiere Pro		
1104	0	CompTIA A+ 220-1101		
II21	Computer Engineering Technology I	CompTIA IT Fundamentals Plus		
1122	Computer Engineering Technology II	CompTIA A+ 220-1102		
1143	Adobe Digital Design I	Adobe Certified Professional 2020 or above Dreamweaver		
1145	Adobe Video Design I	Adobe Certified Professional 2020 or above Premiere Pro		
TL51	3D Modeling II	Autodesk Certified User 3DS Max		
		Autodesk Certified User 3DS Max		
TS25	Digital Design and Animation II	Autodesk Certified User Maya		
	Family and Co	nsumer Sciences Education		
Course Number	Course Title	Credential Name		
FE11	Early Childhood Education I	NC Early Childhood Credential (NCECC) Equivalency		
FE12	Early Childhood Education II	NC Early Childhood Credential (NCECC) Equivalency		
	-7/	Certified Fundamentals Cook (CFC)		
FH13	Culinary Arts and Hospitality III	ProStart National Certificate of Achievement (COA)		
FI23	Interior Design Technology	Autodesk Certified User Revit		
	* ************************************	Science Education		
Course Number	Course Title	Credential Name		
HH32	Pharmacy Technician	CPhT Certified Pharmacy Technician		
	Trade, Technology, En	gineering, and Industrial Education		
Course Number	Course Title	Credential Name		
IC13	Masonry III	NC NCCER - Masonry III		
IC23	Carpentry III	NC NCCER - Carpentry III		
IC43	Electrical Trades III	NC NCCER - Electrical Trades III		
IC62	Drafting II - Architectural	Autodesk Certified User Revit		
IC63	supprocessors (Edulates - notice assessed the strains of			
1005	Drafting III - Architectural	Autodesk Certified Professional Revit		
IC72	Drafting III - Architectural Solar Photovoltaics II	Autodesk Certified Professional Revit  NC NCCER - Solar Photovoltaics II		
IC72	The state of the s			
IC72 IK66	Solar Photovoltaics II Film, Television, and Video	NC NCCER - Solar Photovoltaics II		
IC72 IK66 IK67	Solar Photovoltaics II Film, Television, and Video Production I	NC NCCER - Solar Photovoltaics II  Adobe Certified Professional 2020 or above Premiere Pro		
IC72 IK66 IK67 IL57	Solar Photovoltaics II Film, Television, and Video Production I Film TV and Video Prod II News Prod	NC NCCER - Solar Photovoltaics II  Adobe Certified Professional 2020 or above Premiere Pro  Adobe Certified Professional 2020 or above Premiere Pro		
IC72 IK66 IK67 IL57 IL60	Solar Photovoltaics II Film, Television, and Video Production I Film TV and Video Prod II News Prod HVAC/R III	NC NCCER - Solar Photovoltaics II  Adobe Certified Professional 2020 or above Premiere Pro  Adobe Certified Professional 2020 or above Premiere Pro  NC NCCER - HVAC/R III		
IC72 IK66 IK67 IL57 IL60 IM14	Solar Photovoltaics II Film, Television, and Video Production I Film TV and Video Prod II News Prod HVAC/R III Plumbing III Manufacturing Robotics	NC NCCER - Solar Photovoltaics II  Adobe Certified Professional 2020 or above Premiere Pro  Adobe Certified Professional 2020 or above Premiere Pro  NC NCCER - HVAC/R III  NC NCCER - Plumbing III		
IC72 IK66 IK67 IL57 IL60	Solar Photovoltaics II Film, Television, and Video Production I Film TV and Video Prod II News Prod HVAC/R III Plumbing III	NC NCCER - Solar Photovoltaics II  Adobe Certified Professional 2020 or above Premiere Pro  Adobe Certified Professional 2020 or above Premiere Pro  NC NCCER - HVAC/R III  NC NCCER - Plumbing III  FCR-01 FANUC Certified Robot - Operator 1		
IC72 IK66 IK67 IL57 IL60 IM14	Solar Photovoltaics II Film, Television, and Video Production I Film TV and Video Prod II News Prod HVAC/R III Plumbing III Manufacturing Robotics	NC NCCER - Solar Photovoltaics II  Adobe Certified Professional 2020 or above Premiere Pro  Adobe Certified Professional 2020 or above Premiere Pro  NC NCCER - HVAC/R III  NC NCCER - Plumbing III  FCR-01 FANUC Certified Robot - Operator 1  AWS SENSE Entry Welder Program - SMAW		

IM74	SREB AC Proj in Automated Materials Join	NI Certified LabVIEW Associate Developer (CLAD)	
IP21	Emergency Medical Technology I	Emergency Medical Responder (EMR)	
IP22	Emergency Medical Technology II	Emergency Medical Technician - EMT	
IP41	Law and Justice I	National Law Enforcement Certification SPSS	
IT18	Automotive Service III	ASE - Auto Maintenance and Light Repair (Test G1)	
IT32	Collision Repair II - Non-Structural	I-CAR Platinum ProLevel 1 for Non-Structural	
IT33	Collision Repair II - Refinishing	I-CAR Platinum ProLevel 1 for Refinishing	
IV23	Drafting III - Engineering	Autodesk Certified Professional Inventor	
IV23	Drafting III - Engineering	Certified SolidWorks Professional (CSWP)	
TR14	SREB AC Design for the Prod of Adv Prod	NI Certified LabVIEW Associate Developer (CLAD)	
TR18	SREB AC IST Creativity and Innovations	NI Certified LabVIEW Associate Developer (CLAD)	
TV14	SREB AC Clean Energy Innovations	NI Certified LabVIEW Associate Developer (CLAD)	
TV24	SREB AC Adv Science and Eng Systems	NI Certified LabVIEW Associate Developer (CLAD)	

The chart below illustrates the number of individual credentials earned, available credentials, and credential attainment rate at each tier level for 2022-2023.



#### Equity and Access

NC CTE is committed to closing opportunity gaps across all aspects of the CTE program. Advance CTE's premise that "we have a critical responsibility to ensure that each learner has opportunities for career success and is supported in identifying and realizing their goals" is embraced across the state in the work to construct high-quality CTE programs of study. Critical to this work is data analysis to explore where gaps exist, careful reflection to identify root causes for opportunity gaps, and intentional action plan implementation to address causes that lead to opportunity gaps.

The table below shows a breakdown of credential results by multiple subgroups.

- The green column reports the percentage of students in CTE courses with credential opportunities from each subgroup and is used as the comparison data.
- Data points highlighted in orange are subgroups with an underrepresentation of 10 or more percentage points when compared to the comparison data.
- Data points highlighted in blue are subgroups with an overrepresentation of 10 or more percentage points when compared to the comparison data.

Subgroup	NC Public Schools	NC CTE Enrollment	CTE Enrollment with Cred Opp	Overall Credential Attainment Rate	Tier 1 Credential Attainment Rate	Tier 2 Credential Attainment Rate	Tier 3 Credential Attainment Rate
Female	51%	45%	45%	46%	52%	34%	38%
Male	49%	55%	55%	54%	48%	66%	62%
AmIn	1%	1%	1%	1%	1%	1%	0%
Asian	4%	4%	3%	4%	4%	4%	9%
Black	25%	24%	22%	18%	20%	14%	12%
Hispanic	21%	19%	19%	19%	19%	18%	14%
Multi	5%	5%	4%	5%	5%	5%	4%
Pacisi	0%	0%	0%	0%	0%	0%	0%
White	44%	47%	51%	54%	51%	58%	60%
ELL/ML	11%	6%	4%	4%	4%	3%	2%
EDS	52%	35%	50%	43%	45%	41%	29%
SWD	14%	11%	12%	7%	7%	6%	4%

#### Conclusions

- Female students are underrepresented in Tier 2 credential attainment by 11 percentage point.
- Male students are overrepresented in Tier 2 credential attainment by 11 percentage points.
- Black students are underrepresented in Tier 3 credential attainment by 10 percentage points.
- Economically disadvantaged students are underrepresented in Tier 3 credential attainment by 21 percentage points.

#### **Trend Data**

NC CTE monitors data to identify trends over time. The last three years have shown that opportunity gaps in Tier 2 and Tier 3 credentials persist with an underrepresentation of female students earning those credentials of value. However, the percentage of Tier 3 credentials being earned by female students has increased over the three-year window. Similarly, opportunity gaps across racial subgroups have continued to improve over the same window of time.

Subgroup		Comparison Data		
5177.5 No. 7	2020-21	2021-22	2022-23	2022-23
American Indian/ Alaskan Native	0.80%	0.90%	0.88%	1.30%
Asian	4.00%	3.50%	3.52%	2.55%
Black or African American	15.40%	17.80%	20.37%	22.39%
Hispanic	15.00%	17.70%	19.02%	18.65%
Native Hawaiian/ Pacific Islander	0.10%	0.10%	0.12%	0.13%
Two or More	4.00%	4.10%	4.63%	4.46%
White	60.80%	55.80%	51.47%	50.52%
Female	51.40%	48.60%	51.99%	45.00%
Male	48.60%	51.40%	48.01%	55.00%

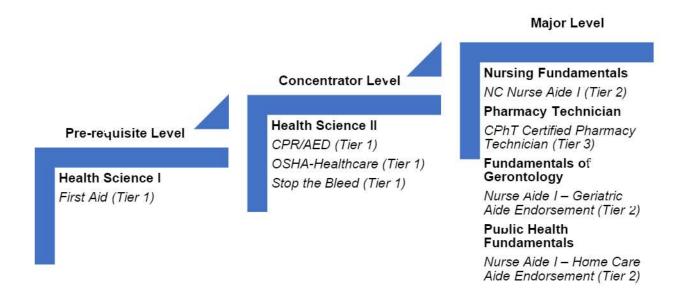
Subgroup		Comparison Data		
Gubgroup	2020-21	2021-22	2022-23	2022-23
American Indian/ Alaskan Native	0.40%	0.70%	0.56%	1.30%
Asian	5.30%	4.10%	3.90%	2.55%
Black or African American	9.20%	12.40%	14.28%	22.39%
Hispanic	13.00%	16.70%	18.24%	18.65%
Native Hawaiian/ Pacific Islander	0.10%	0.10%	0.14%	0.13%
Two or More	3.40%	4.00%	4.60%	4.46%
White	68.60%	62.00%	58.28%	50.52%
Female	36.10%	29.20%	33.58%	45.00%
Male	63.80%	70.80%	66.42%	55.00%

Subgroup		Comparison Data		
Gubgroup	2020-21	2021-22	2022-23	2022-23
American Indian/ Alaskan Native	0.30%	0.20%	0.47%	1.30%
Asian	11.30%	13.00%	9.15%	2.55%
Black or African American	6.70%	9.50%	12.21%	22.39%
Hispanic	10.60%	11.90%	13.85%	18.65%
Native Hawaiian/ Pacific Islander	0.10%	0.10%	0.16%	0.13%
Two or More	3.80%	4.20%	4.20%	4.46%
White	67.20%	61.00%	59.95%	50.52%
Female	22.60%	29.60%	37.87%	45.00%
Male	77.40%	70.40%	62.13%	55.00%

#### Stackable Credentials

Stackable credentials provide a method of supporting the incremental building of work skills and are designed to maximize skill acquisition while enabling seamless transitions to careers (Murawski, 2019). Benefits of stackable credentials are best realized when the credentials are aligned to structured and well-designed career pathways that progress through the curriculum and build a resume of portable skills and competencies needed in the labor market (Giani & Fox, 2017). As an example, CTE students in North Carolina have an opportunity to stack credentials in health sciences by earning First Aid in Health Science I; the American Heart Association certification in CPR, the Occupational Safety and Health Association Healthcare certification, and the American Red Cross Stop the Bleed certification in Health Science II; and North Carolina Nurse Aide I in Nursing Fundamentals. While multiple perspectives concerning workforce issues exist, there is agreement related to the impact of sub-baccalaureate credentials such as associate degrees, certificates, and industry-recognized credentials. One point of consensus among those working to close the supply and demand gap in the labor force is the need to increase the number of potential employees holding high-quality credentials (Giani & Fox, 2017). With embedded stackable credentials aligned to pathways reflective of the community's labor market needs, a local pipeline into a broad range of professions can be provided by CTE programs (Reader et al., 2021).

#### Healthcare Professional Pathway Courses and Stackable Credentials



#### CAREER READINESS CREDENTIALS AND DURABLE SKILLS

There are four specific credentials that address a student's career readiness. Career readiness credentials, also referred to as durable skills, indicate the credential-holder's competency across multiple characteristics needed for success across all careers. Three such credentials are aligned to CC45-Career Management: Conover Workplace Readiness, Microburst Learning Employers' Choice: EmployABILITY Soft Skills for Job Success, and Express Employment Professionals Career Preparedness Certification. These credentials measure knowledge in areas such as social media and the workplace, attitude, critical thinking, and acceptable workplace behaviors.

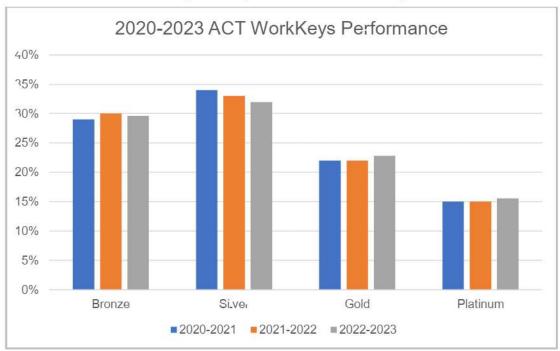
The fourth career readiness credential is the ACT WorkKeys. While not aligned with any one CTE course, this assessment is used to measure student employability skills in three areas – Applied Math, Graphic Literacy, and Workplace Documents. The ACT WorkKeys examination is administered to CTE concentrators in their anticipated graduation year. CTE concentrators are students who successfully complete a second- or third-level course that builds upon skills acquired in a prerequisite course or courses.

Test-takers who reach benchmark scores on the assessment receive a National Career Readiness Certificate™ (NCRC), which is available at four levels—Platinum, Gold, Silver, and Bronze. Employers use NCRC as a screening tool when hiring to improve the quality of their workforce and to help potential employees understand the level of performance necessary to be successful in a field.

## **ACT WorkKeys**

- In 2020-2021, just over 30,000 students participated in ACT WorkKeys test administration and 71% of those students received a National Career Readiness Certificate of Silver or above
- In 2021-2022, over 37,000 students participated in the ACT WorkKeys test administration and 70% of those students received a National Career Readiness Certificate of Silver or above
- In 2022-2023, over 41,000 students participated in the ACTE WorkKeys test administration and 70% of those students received a National Career Readiness Certificate of Silver or above





#### Career Readiness Credentials, Three-Year Attainment

Career Readiness Credential	2020-2021	2021-2022	2022-2023
Conover Credential Workplace Readiness	2,368	3,161	4,381
Microburst Learning Employers' Choice: EmployABILITY Soft Skills for Job Success	527	860	713
Express Employment Professionals Career Preparedness Certification	38	101	660
Grand Total	2,933	4,122	5,754

#### CONNECTION TO NC WORKFORCE CREDENTIALS

Many credentials earned by NC CTE secondary students are identified by the NC Workforce Credentials partners (NCWFC) as "priority non-degree credentials that are valued by employers and put those who earn them on a path to a sustainable wage career" (NC Careers). The table below highlights the credential attainment by NC CTE students across the credentials offered in

high school courses and identified by the NCWFC. Additionally, the PSU with the highest attainment is displayed. Three important data points are listed below.

- For 2022-2023, NC CTE students earned 59,199 industry-recognized credentials that are aligned to the NCWFC credential list. This number represents an increase of 44% over the 40,959 earned NCWFC credentials from 2021-2022.
- NC CTE offers 70 of the approximately 160 NCWFC credentials and reported earned credentials across 64 of those credentials.
- Of the combined credentials earned by NCCTE (165,020), 31% (59,199) are credentials from the NCWFC list.

#### NC WORKFORCE CREDENTIALS AND NC CTE ATTAINMENT

Career Cluster	NCWFC Level - NC CTE Tier	Credential Name	NC CTE Earned	PSU with Highest Credential Attainment
Agriculture, Food & Natural Resources	Essential - 2	Canine Care and Training Program (CCTP)	167	38 (23%) Cumberland County Schools
Agriculture, Food & Natural Resources	Career - 3	Certified Veterinary Assistant	47	14 (30%) Harnett County Schools
Agriculture, Food & Natural Resources	Essential - 3	Equine Management and Evaluation Certification	16	12 (75%) Nash County Public Schools
Agriculture, Food & Natural Resources	Essential - 3	NC Pesticide Applicator	1	1 (100%) Iredell- Statesville Schools
Agriculture, Food & Natural Resources	Essential - 2	Small Engine Repair	272	54 (20%) Randolph County School System
Agriculture, Food & Natural Resources	Foundation -	The Elanco Veterinary Medical Applications Certification	266	30 (11%) Wake County Schools
Architecture & Construction	Career - 2	Autodesk Certified User AutoCAD	3,027	596 (20%) Wake County Schools
Architecture & Construction	Career - 2	Autodesk Certified User Inventor	482	96 (20%) Wake County Schools
Architecture & Construction	Career - 3	Autodesk Certified User Revit	1,008	144 (14%) Charlotte- Mecklenburg Schools
Architecture & Construction	Career - 3	AWS Certified Welder	227	70 (31%) Randolph County School System
Architecture & Construction	Essential - 2	AWS SENSE - Thermal Cutting Process	81	35 (43%) Hoke County Schools
Architecture & Construction	Essential - 2	AWS SENSE- Flux Cored Arc Welding (FCAW)	8	8 (100%) Davidson County Schools

Architecture & Construction	Essential - 2	AWS SENSE- Gas Metal Arc Welding (GMAW)	8	8 (100%) Davidson County Schools
Architecture & Construction	Essential - 3	AWS SENSE- Shielded Metal Arc Welding (SMAW)	21	15 (71%) Beaufort County Schools
Architecture & Construction	Essential - 2	Certified SolidWorks Associate (CSWA)	28	13 (46%) Gaston County Schools
Architecture & Construction	Career - 2	NCCER Carpentry Level I	2,135	210 (10%) Burke County Schools
Architecture & Construction	Career - 2	NCCER Carpentry Level II	841	63 (7%) Wake County Schools
Architecture & Construction	Career - 3	NCCER Carpentry Level III	123	17 (14%) Burke County Schools
Architecture & Construction	Career - 2	NCCER Electrical Trades I	401	78 (19%) Harnett County Schools
Architecture & Construction	Career - 2	NCCER Electrical Trades II	153	40 (26%) Davidson County Schools
Architecture & Construction	Career - 3	NCCER Electrical Trades III	9	6 (67%) Union County Public Schools
Architecture & Construction	Career - 2	NCCER HVAC Level I	44	36 (82%) Wayne County Public Schools
Architecture & Construction	Career - 2	NCCER HVAC Level II	4	4 (100%) Wayne County Public Schools
Architecture & Construction	Career - 2	NCCER Masonry Level I	789	89 (11%) Rowan- Salisbury Schools
Architecture & Construction	Career - 2	NCCER Masonry Level II	377	62 (16%) Rowan- Salisbury Schools
Architecture & Construction	Career - 3	NCCER Masonry Level III	108	29 (27%) Caldwell County Schools
Architecture & Construction	Career - 2	NCCER Plumbing Level I	14	14 (100%) Scotland County Schools
Architecture & Construction	Career - 2	NCCER Plumbing Level II	9	9 (100%) Scotland County Schools
Architecture & Construction	Career - 2	WCA Sawblade Certificate	315	120 (38%) Buncombe County Schools
Arts, A/V Technology & Communications	Career - 3	Adobe Certified Professional: Dreamweaver	306	74 (24%) Wake County Schools
Arts, A/V Technology & Communications	Career - 2	Adobe Certified Professional: Illustrator	6,387	1,478 (23%) Wake County Schools
Arts, A/V Technology & Communications	Career - 2	Adobe Certified Professional: InDesign	1,014	270 (27%) Gaston County Schools

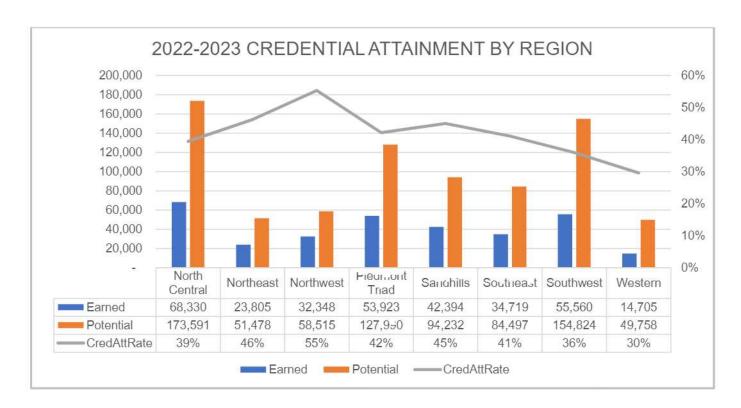
Arts, A/V Technology & Communications	Career - 2	Adobe Certified Professional: Photoshop	7,579	1,640 (22%) Wake County Schools
Arts, A/V Technology & Communications	Career - 3	Adobe Certified Professional: Premier Pro	1,868	447 (24%) Wake County Schools
Business, Management & Administration	Essential - 2	Intuit QuickBooks Certified User	219	53 (24%) Guilford County Schools
Business, Management & Administration	Essential - 3	Microsoft Office Specialist 2016 or above Access	2	2 (100%) Pitt County Schools
Business, Management & Administration	Essential - 1	Microsoft Office Specialist 2016 or above Excel Core	4,080	1,084 (27%) Wake County Schools
Business, Management & Administration	Essential - 3	Microsoft Office Specialist 2016 or above Excel Expert	2,804	885 (32%) Wake County Schools
Education and Training	Essential - 3	NC: Early Childhood Credential (NCECC) Equivalency	244	48 (20%) Wake County Schools
Health Sciences	Essential - 2	NC: Nurse Aide I	1,587	137 (9%) Guilford County Schools
Health Sciences	Essential - 3	NC: Pharmacy Technician Certification	99	39 (39%) Wake County Schools
Hospitality & Tourism	Essential - 2	Certified Food Protection Manager (CFPM)	3,158	257 (8%) Wake County Schools
Hospitality & Tourism	Essential - 3	Certified Fundamentals Cook (CFC)	17	17 (100%) Transylvania County Schools
Hospitality & Tourism	Career - 3	ProStart National Certificate of Achievement (COA)	3	2 (67%) Randolph County School System
Hospitality and Tourism	Foundation - 1	ServSafe Food Handler	12,764	1,896 (15%) Wake County Schools
Information Technology	Career - 3	CompTIA A+	87	33 (38%) Wake County Schools
Information Technology	Career - 3	CompTIA IT Fundamentals	405	268 (66%) Wake County Schools
Information Technology	Career - 3	CompTIA Network +	2	1 (50%) Onslow County Schools; 1 (50%) Wake County Schools
Information Technology	Career - 2	CompTIA Security +	2	1 (50%) Cumberland County Schools; 1 (50%) Lincoln County Schools
Law, Public, Safety, Corrections & Security	Essential - 3	Emergency Medical Technician (EMT)	45	20 (44%) Lincoln County Schools

Law, Public, Safety, Corrections & Security	Career - 1	Fire Fighter I	291	71 (24%) Burke County Schools
Law, Public, Safety, Corrections & Security	Career - 1	Fire Fighter II	176	31 (18%) Johnston County
Law, Public, Safety, Corrections & Security	Career - 1	Fire Fighter III	77	18 (23%) Cumberland County Schools
Law, Public, Safety, Corrections & Security	Essential - 2	National Incident Management System	3,213	607 (19%) Cumberland County Schools
Law, Public, Safety, Corrections & Security	Essential - 2	NC: Emergency Management Certification I	97	20 (21%) Franklin County Schools
Law, Public, Safety, Corrections & Security	Essential - 2	NECI: Basic 911 Communication Certification	536	222 (41%) Cumberland County Schools
Manufacturing	Career - 2	Certified Production Technician - Maintenance Awareness	179	28 (16%) Johnston County Public Schools
Manufacturing	Career - 2	Certified Production Technician - Manufacturing Processes and Production	53	10 (19%) Gaston County Schools
Manufacturing	Career - 2	Certified Production Technician - Quality Practices and Measurement	74	18 (24%) Gaston County Schools
Manufacturing	Career - 2	Certified Production Technician - Safety	319	52 (16%) Craven County Schools
Manufacturing	Essential - 2	NIMS Job Planning, Benchmark, and Layout	33	11 (33%) Madison County Schools
Manufacturing	Essential - 2	NIMS Machining Level I - Measurement, Materials, and Safety Certification	118	30 (25%) Madison County Schools
Transportation, Distribution, & Logistics	Career - 3	ASE - Auto Maintenance and Light Repair (Test G1)	37	9 (24%) Moore County Schools
Transportation, Distribution, & Logistics	Essential - 2	FAA Remote Pilot Certificate (Part 107)	343	66 (19%) Catawba County Schools

#### 2022-2023 STATEWIDE REGIONAL RESULTS

The following chart shows the earned credentials, credential potential, and credential attainment rate by region.

- The highest number of earned credentials by region was 68,330 in the North Central Region. (For 2021-2022 the highest number of earned credentials by region was 48,868 in the Southwest Region.)
- The highest credential attainment rate by region was 55% in the Northwest Region. (For 2021-2022 the highest credential attainment rate by region was 47% in the Northwest Region.)
- All regions reported a credential attainment rate between 30% and 55%. (For 2021-2022 the credential attainment rate ranged between 23% and 47%.)
- The statewide credential attainment rate for 2022-2023 was 41.0%, an increase of 12.8 percentage-points over the previous year. (The statewide credential attainment rate was 28.2% for the 2021-2022 school year, an increase of 13 percentage-points over the previous year.)



#### Public School Unit Results Overview

Students in 179 Public School Units (PSUs), including 115 traditional and 64 charter and specialty schools, had the opportunity to earn credentials in 2022-2023. The following charts highlight the top ten PSUs based on 1) the number of individual credentials earned and 2) individual credential attainment rate. The comparison of credential attainment rate, or credential potential, creates a consistent analysis point by comparing the available credentials to the earned credentials in each

PSU. The three-year comparison data indicates that the additional funding, focus on intentional credentialing of students, and attention to credential potential attainment rate has yielded tremendous results in credential attainment across multiple PSUs.

2022-2723 Highest Number of Earned Credentials

Public School Unit (PSU)	Region	2022-2023	2021-2022	2020-2021
Wake County Schools - 920	North Central	28,135	16,489	5,602
Cumberland County Schools - 260	Sandhills	16,012	7,933	3,105
Union County Public Schools - 900	Southwest	12,985	11,135	9,218
Charlotte-Mecklenburg Schools - 600	Southwest	9,833	8,980	3,256
Da√idson County Schools - 290	Piedmont-Triad	8,893	5,671	2,358
Harnett County Schools - 430	North Central	8,769	4,846	2,033
Randolph County School System - 760	Piedmont-Triad	8,342	5,812	4,004
Guilford County Schools - 410	Piedmont-Triad	8,250	7,118	2,966
Gaston County Schools - 360	Southwest	7,720	8,195	6,065
Caldwell County Schools - 140	Northwest	6,668	6,686	6,516

# 2022-2023 Highest Credential Attainment Rate

Dublic School Unit (DSU)	2022-2023 2		2021-2022	2020-2021	
Public School Unit (PSU)	Met	Total	CredAttRate	CredAttRate	CredAttRate
Hyde County Schools - 480	365	447	82%	13%	11%
Caldwell County Schools - 140	6,668	8,805	76%	64%	59%
Yancey County Schools - 995	1,098	1,477	74%	66%	31%
Pender County Schools - 710	5,218	7,540	69%	49%	49%
Burke County Schools 120	6,236	9,198	68%	66%	44%
Transylvania County Schools - 880	1,884	2,814	67%	48%	38%
Camden County Schools - 150	1,189	1,790	66%	30%	20%
Cherokee County Schools - 200	1,217	1,857	66%	63%	32%
Moore County Schools - 630	4,731	7,284	65%	47%	42%
Lincoln County Schools - 550	2,994	4,732	63%	58%	38%

### STATEWIDE RESULTS: CREDENTIAL POTENTIAL ATTAINMENT RATE BY PSU

Public School Unit (PSU)	Earned	Potential	CredAttRate
Alamance-Burlington Schools - 010	6,013	19,007	31.6%
Alexander County Schools - 020	2,193	4,584	47.8%
Alleghany County Schools - 030	1,057	1,812	58.3%
American Leadership Academy - Johnston - 51C	0	62	0.0%
American Leadership Academy-Coastal - 65F	0	24	0.0%

Anson County Schools · 040	1,0 59	3,564	29.7%
Apprentice Academy High School - 90F	4	126	3.2%
Arapahoe Charter School - 69A	2	160	1.3%
As cend Leadership Academy: Lee County - 53B	11	250	4.4%
Ashe County Schools - 050	2,121	3,434	61.8%
Asheboro City Schools - 761	1,492	3,432	43.5%
Asheville City Schools - 111	252	1,301	19.4%
Avery County Schools - 060	653	1,567	41.7%
Bear Grass Charter School - 58B	164	584	28.1%
Beaufort County Schools - 070	3,083	6,642	46.4%
Bertie County Schools - 080	255	1,266	20.1%
Bladen County Schools - 090	2,025	4,962	40.8%
Bradford Preparatory School - 60S	0	20	0.0%
Brunswick County Schools - 100	4,585	10,146	45.2%
Buncombe County Schools - 110	1,282	7,257	17.7%
Burke County Schools - 120	6,236	9,198	67.8%
Cabarrus County Schools - 130	4,715	15,050	31.3%
Caldwell County Schools - 140	6,668	8,805	75.7%
Camden County Schools - 150	1,189	1,790	66.4%
Carolina International School - 13A	0	2	0.0%
Carteret County Public Schools - 160	1,789	6,090	29.4%
Caswell County Schools - 170	418	1,362	30.7%
Catawba County Schools - 180	4,105	9,450	43.4%
Chapel Hill-Carrboro City Schools - 681	1,225	2,199	55.7%
Charlotte Lab School - 61M	0	4	0.0%
Charlotte Secondary - 60K	0	33	0.0%
Charlotte-Mecklenburg Schools - 600	9,833	43,501	22.6%
Chatham Charter - 19A	0	13	0.0%
Chatham County Schools - 190	4,673	8,405	55.6%
Cherokee Central Schools - 209	32	284	11.3%
Cherokee County Schools - 200	1,217	1,857	65.5%
Clay County Schools - 220	533	943	56.5%
Cleveland County Schools - 230	2,305	9,585	24.0%
Clinton City Schools - 821	1,117	2,143	52.1%
Clover Garden - 01C	0	411	0.0%
Columbus County Schools - 240	2,027	5,262	38.5%
Cornerstone Charter Academy-CFA - 41G	0	42	0.0%
Corvian Community School - 60M	0	19	0.0%
Craven County Schools - 250	2,395	9,023	26.5%
Cumberland County Schools - 260	16,012	34,466	46.5%
Currituck County Schools - 270	749	3,089	24.2%
Dare County Schools - 280	2,581	4,090	63.1%
Davidson County Schools - 290	8,893	22,919	38.8%

Davie County Schools - 300	2,015	3,673	54.9%
Deaf and Blind Schools - 298	2,010	92	1.1%
Discovery Charter - 32T	0	560	0.0%
Duplin County Schools - 310	3,651	6,628	55.1%
Durham Public Schools - 320	1,669	7,349	22.7%
East Wake Academy - 92G	165	289	57.1%
Edenton-Chowan Schools - 210	873	1,699	51.4%
Edgecombe County Public Schools - 330	491	2,693	18.2%
Elizabeth City-Pasquotank Public Schools - 700	2,483	4,300	57.7%
Elkin City Schools - 861	252	449	56.1%
Excelsior Classical Academy - 32R	0	24	0.0%
Falls Lake Academy - 39A	0	156	0.0%
FernLeaf - 45B	0	10	0.0%
Franklin Academy - 92F	0	26	0.0%
Franklin County Schools - 350	3,416	7,611	44.9%
Gaston County Schools - 360	7,720	12,417	62.2%
Gates County Schools - 370	702	1,239	56.7%
Girls Leadership Academy of Wilmington - 65G	0	176	0.0%
Graham County Schools - 380	325	1,045	31.1%
Granville County Schools - 390	2,243	5,998	37.4%
Greene County Schools - 400	1,143	2,481	46.1%
Guilford County Schools - 410	8,250	18,316	45.0%
Halifax County Schools - 420	445	2,113	21.1%
Haliwa-Saponi Tribal School - 93A	0	74	0.0%
Harnett County Schools - 430	8,769	17,625	49.8%
Haywood County Schools - 440	959	5,217	18.4%
Henderson County Schools - 450	2,105	7,849	26.8%
Hertford County Schools - 460	875	2,109	41.5%
Hickory City Schools - 181	787	1,604	49.1%
Hobgood Charter School - 42B	0	95	0.0%
Hoke County Schools - 470	4,660	8,629	54.0%
Hyde County Schools - 480	365	447	81.7%
IC Imagine - 11C	0	140	0.0%
Iredell-Statesville Schools - 490	3,394	12,844	26.4%
Jackson County Public Schools - 500	649	2,203	29.5%
Jackson Day School - 61X	0	26	0.0%
Johnston County Public Schools - 510	5,471	21,325	25.7%
Jones County Schools - 520	535	1,251	42.8%
Kannapolis City Schools - 132	803	5,303	15.1%
Lake Lure Classical Academy - 81B	0	1	0.0%
Lake Norman Charter - 60D	0	3	0.0%
Langtree Charter Academy - 49F	0	83	0.0%
Lee County Schools - 530	2,178	6,184	35.2%

Lenoir County Public Schools - 540	1,356	4,548	29.8%
Lexington City Schools - 291	451	3,261	13.8%
Lincoln Charter School - 55A	0	61	0.0%
Lincoln County Schools - 550	2,994	4,732	63.3%
Macon County Schools - 560	846	2,553	33.1%
Madison County Schools - 570	586	1,730	33.9%
Marjorie Williams Academy - 06B	0	1	0.0%
Martin County Schools - 580	274	1,459	18.8%
McDowell County Schools - 590	2,376	4,385	54.2%
Mitchell County Schools - 610	617	1,018	60.6%
Montgomery County Schools - 620	1,163	2,739	42.5%
Moore County Schools - 630	4,731	7,284	65.0%
Mooresville Graded School District - 491	2,269	3,880	58.5%
Mount Airy City Schools - 862	444	955	46.5%
Mountain Island Charter School - 36C	0	33	0.0%
Nash County Public Schools - 640	2,876	11,659	24.7%
NC Health and Human Services - 997	0	18	0.0%
NC Leadership Charter Academy - 34H	0	27	0.0%
NC Virtual Academy - 00B	0	190	0.0%
NCDPS Juvenile Education Services - 998	0	224	0.0%
NERSBA Early College - 94Z	24	214	11.2%
Neuse Charter School - 51A	0	63	0.0%
New Hanover County Schools - 650	1,943	8,946	21.7%
Newton Conover City Schools - 182	1,483	2,462	60.2%
North Carolina Cyber Academy - 00A	9	1,762	0.5%
North East Carolina Prep - 33A	4	252	1.6%
Northampton County Schools - 660	460	1,176	39.1%
Northeast Academy of Aerospace & AdvTech - 70A	0	31	0.0%
Onslow County Schools - 670	5,925	15,857	37.4%
Orange County Schools - 680	1,138	4,011	28.4%
Pamlico County Schools - 690	478	1,202	39.8%
Paul R. Brown Leadership Academy - 09A	0	8	0.0%
Pender County Schools - 710	5,218	7,540	69.2%
Perquimans County Schools - 720	436	1,021	42.7%
Person County Schools - 730	1,915	3,585	53.4%
Piedmont Community Charter School - 36B	0	158	0.0%
Pine Lake Preparatory - 49E	0	36	0.0%
Pinnacle Classical Academy - 23A	12	105	11.4%
Pioneer Springs Community School - 60Y	0	50	0.0%
Pitt County Schools - 740	6,020	13,382	45.0%
Polk County Schools - 750	996	2,573	38.7%
Public Schools of Robeson County - 780	2,257	9,981	22.6%
Quality Education Academy - 34B	0	2	0.0%

Queen's Grant Community School - 60G	0	1	0.0%
Randolph County School System - 760	8,342	14,758	56.5%
Richmond County Schools - 770	2,249	4,505	49.9%
River Mill Academy - 01B	0	26	0.0%
Roanoke Rapids City Schools - 421	1,932	3,125	61.8%
Rockingham County Schools - 790	1,614	3,867	41.7%
Rowan-Salisbury Schools - 800	4,544	9,707	46.8%
Roxboro Community School - 73B	0	1	0.0%
Rutherford County Schools - 810	2,795	9,832	28.4%
Sampson County Schools - 820	2,194	5,487	40.0%
Scotland County Schools - 830	3,013	6,084	49.5%
Shining Rock Classical Academy - 44A	0	24	0.0%
Southern Wake Academy - 92P	0	54	0.0%
Stanly County Schools - 840	2,923	8,347	35.0%
Stokes County Schools - 850	2,408	3,936	61.2%
Surry County Schools - 860	4,690	7,910	59.3%
Swain County Schools - 870	244	2,125	11.5%
The Capitol Encore Academy - 26C	12	142	8.5%
The Hawbridge School - 01D	1	1	100.0%
Thomasville City Schools - 292	464	1,675	27.7%
Transylvania County Schools - 880	1,884	2,814	67.0%
Triad Math and Science Academy - 41F	0	69	0.0%
Triangle Math and Science Academy - 92T	32	148	21.6%
Tyrrell County Schools - 890	215	358	60.1%
Union Academy - 90A	0	25	0.0%
Union County Public Schools - 900	12,985	25,075	51.8%
Uwharrie Charter Academy - 76A	0	1	0.0%
Vance Charter School - 91A	0	146	0.0%
Vance County Schools - 910	678	3,304	20.5%
Voyager Academy - 32L	4	106	3.8%
Wake County Schools - 920	28,185	57,998	48.6%
Wake Preparatory Academy - 35C	0	122	0.0%
Warren County Schools - 930	74	1,291	5.7%
Washington County Schools - 940	471	864	54.5%
Watauga County Schools - 950	586	2,390	24.5%
Wayne County Public Schools - 960	5,699	10,209	55.8%
Wayne Preparatory Academy - 96F	0	204	0.0%
Weldon City Schools - 422	209	385	54.3%
Whiteville City Schools - 241	934	2,540	36.8%
Wilkes County Schools - 970	2,368	6,318	37.5%
Wilson County Schools - 980	3,103	7,812	39.7%
Winston Salem / Forsyth County Schools - 340	5,864	16,303	36.0%
Woods Charter - 19B	0	2	0.0%

Yadkin County Schools - 990	2,312	5,588	41.4%
Yancey County Schools - 995	1,098	1,477	74.3%

## STATEWIDE RESULTS: CREDENTIAL ATTAINMENT RATE BY COURSE & CREDENTIAL

Course Code - Credential	Earned	Potential	Credential Attainment Rate
AA21-NC Beef Quality Assurance	2,294	14,167	16.2%
AA21-Youth for Qual Care of Animals	3,308	14,167	23.4%
AA22-Natl Beef Qual Assur Cow/Calf	222	2,200	10.1%
AA22-Natl Beef Qual Assur Feedyard	104	2,208	4.7%
AA22-NC Beef Quality Assurance	306	2,168	14.1%
AA22-Youth for Qual Care of Animals	268	2,144	12.5%
AA23-Canine Care and Train Prg CCTP	167	2,678	6.2%
AA32-Equine Mgmt and Evaluation	16	32	50.0%
AA41-Certified Veterinary Assistant	47	396	11.9%
AA41-Elanco Veterinary Med Apps	266	394	67.5%
AN51-NC Hunter Safety Course	320	1,371	23.3%
AN52-NC Hunter Safety Course	88	259	34.0%
AP43-NC Prvt Pesticide Applicator	1	38	2.6%
AS31-Certified Welders per AWS D1.1	110	4,944	2.2%
AS31-Natl SafeTractor and Mach Op	103	4,945	2.1%
AS31-OSHA 10-Hr Industry Cert - Ag	1,390	4,920	28.3%
AS32-Certified Welders per AWS D1.1	61	1,727	3.5%
AS32-Natl SafeTractor and Mach Op	41	1,740	2.4%
AS32-OSHA 10-Hr Industry Cert - Ag	269	1,656	16.2%
AS33-NC Competency Certification	272	290	93.8%
AU10-Certified Welders per AWS D1.1	3	7,212	0.0%
AU10-Natl SafeTractor and Mach Op	81	7,212	1.1%
AU10-NC Hunter Safety Course	1,520	7,185	21.2%
AU11-Certified Welders per AWS D1.1	0	229	0.0%
AU11-Natl SafeTractor and Mach Op	0	229	0.0%
AU11-NC Beef Quality Assurance	0	229	0.0%
AU11-Youth for Qual Care of Animals	28	229	12.2%
AU12-NC Beef Quality Assurance	0	77	0.0%
AU12-NC Prvt Pesticide Applicator	0	77	0.0%
AU12-Youth for Qual Care of Animals	25	77	32.5%
AU22-Certified Level Beekeeper	0	234	0.0%
BA10-Intuit Quickbooks Cert User	125	5,090	2.5%
BA20-Intuit Quickbooks Cert User	94	533	17.6%
BI12-CompTIA IT Fundamentals Plus	393	1,851	21.2%

BL52-App Dev with Swift Assoc	34	115	29.6%
BL53-App Dev with Swift Cert User	0	9	0.0%
BM10-MOS 2019 or above PowerPoint	6,204	11,088	56.0%
BM10-MOS 2019 or above Word	5,760	11,087	52.0%
BM20-MOS 2019 or above Excel Core	4,080	7,280	56.0%
BM20-MOS 2019 or above Excel Expert	2,804	7,281	38.5%
BM40-MOS 2019 or above Access	2	3	66.7%
BN22-CompTIA Network Plus N10-008	2	34	5.9%
BN32-CompTIA Security Plus	2	48	4.2%
BP16-PCAP Python Cert Associate	152	706	21.5%
BP20-SAS Cert Spec Progrmg Fund 9.4	66	142	46.5%
CC45-CCWR-Career Mgmt- Attitude	5,690	17,732	32.1%
CC45-CCWR-Career Mgmt- Comm	6,349	17,731	35.8%
CC45-CCWR-Career Mgmt- Crit Thinkng	5,270	17,732	29.7%
CC45-CCWR-Career Mgmt- Int/Soc Skls	6,223	17,732	35.1%
CC45-CCWR-Career Mgmt- Media Rules	6,331	17,732	35.7%
CC45-CCWR-Career Mgmt- Plan/Org	5,570	17,732	31.4%
CC45-CCWR-Career Mgmt- Professional	5,238	17,733	29.5%
CC45-CCWR-Career Mgmt- Teamwork	6,289	17,732	35.5%
CC45-Expr Emplymnt Prof Career Prep	660	17,736	3.7%
CC45-Microburst Sft Sklls Success	713	17,737	4.0%
CS12-PMI Project Mgmt Ready Cert	390	784	49.7%
FA32-PrePAC in Fash Text and Apprl	38	1,066	3.6%
FC14-PrePAC in Fam and Commun Srvcs	572	758	75.5%
FE11-CPR/AED	793	1,462	54.2%
FE11-First Aid	721	1,460	49.4%
FE11-NCECC Equivalency	214	1,476	14.5%
FE12-CPR/AED	103	257	40.1%
FE12-First Aid	102	257	39.7%
FE12-NCECC Equivalency	30	293	10.2%
FE21-Basic School Age Care (BSAC)	159	408	39.0%
FH10-ANSI-Accred Food Protect Mgr	880	9,103	9.7%
FH11-ANSI-Accred Food Protect Mgr	393	2,536	15.5%
FH12-ANSI-Accred Food Protect Mgr	14	111	12.6%
FH13-Cert Fundamentals Cook CFC	17	930	1.8%
FH13-PrePAC in Culinary Arts	305	935	32.6%
FH13-ProStart Ntl Cert of Achv-COA	3	935	0.3%
FI22-PrePAC in Int Design Fndmntls	262	1,895	13.8%
FI23-Autodesk Cert User Revit	57	141	40.4%
FN41-ANSI-Accred Food Handler Cert	12,764	29,832	42.8%
FN42-ANSI-Accred Food Protect Mgr	1,871	9,692	19.3%
FN42-PrePAC in Nutrit Food Wellness	198	9,696	2.0%
FN43-Food Safety and Science Cert	28	269	10.4%
FN43-PrePAC in Food Sci Fndmntls	12	269	4.5%

HB12-OSHA 10-Hr Indus Cert-Hithcare	14	109	12.8%
HH32-CPhT Certified Pharmacy Tech	99	487	20.3%
HL21-OSHA 10-Hr Indus Cert-Hithcare	0	19	0.0%
HN43-North Carolina Nurse Aide I	1,587	2,120	74.9%
HN44-Nurse Aide I-Geriatric Endrsmt	2	8	25.0%
HN45-Nurse Aide I-Home Care Endrsmt	6	6	100.0%
HP70-Stop the Bleed	2,321	3,313	70.1%
HP71-CPR/AED	1,054	1,736	60.7%
HP71-First Aid	609	1,729	35.2%
HU40-First Aid	9,074	21,643	41.9%
HU42-Basic Life Support	8,215	9,475	86.7%
HU42-OSHA 10-Hr Indus Cert-Hithcare	6,525	9,496	68.7%
HU42-Stop the Bleed	5,942	9,480	62.7%
IA11-PrintED Intro to Graphic Comm	11	92	12.0%
IA13-PrintED Advertising and Design	1	43	2.3%
IA32-ACP 2020 or above Dreamweaver	0	80	0.0%
IA32-ACP 2020 or above Illustrator	7	80	8.8%
IA32-ACP 2020 or above InDesign	1	80	1.3%
IA32-ACP 2020 or above Photoshop	16	80	20.0%
IA32-ACP 2020 or above Premiere Pro	2	80	2.5%
IC00-NC NCCER Module 00101 (w PP)	8,416	13,318	63.2%
IC00-NC NCCER Module 00102 (w PP)	8,484	13,319	63.7%
IC00-NC NCCER Module 00103 (w PP)	7,807	13,319	58.6%
IC00-NC NCCER Module 00104 (w PP)	7,892	13,318	59.3%
IC00-NC NCCER Module 00105 (w PP)	7,828	13,318	58.8%
IC00-NC NCCER Module 00107 (w PP)	8,666	13,318	65.1%
IC00-NC NCCER Module 00108	9,500	13,317	71.3%
IC00-NC NCCER Module 00109 (w PP)	8,214	13,317	61.7%
IC00-OSHA 10-Hr Construction Cert	5,357	13,305	40.3%
IC11-NC NCCER Module 28101 (w PP)	1,137	1,586	71.7%
IC11-NC NCCER Module 28102 (w PP)	1,048	1,586	66.1%
IC11-NC NCCER Module 28103 (w PP)	1,027	1,585	64.8%
IC11-NC NCCER Module 28104 (w PP)	1,054	1,586	66.5%
IC11-NC NCCER Module 28105 (w PP)	929	1,586	58.6%
IC11-NC NCCER Module 28106 (w PP)	1,096	1,585	69.1%
IC12-NC NCCER Module 28201 (w PP)	463	659	70.3%
IC12-NC NCCER Module 28202 (w PP)	460	659	69.8%
IC12-NC NCCER Module 28203 (w PP)	438	659	66.5%
IC12-NC NCCER Module 28204 (w PP)	436	660	66.1%
IC13-NC NCCER Module 28205 (w PP)	120	167	71.9%
IC13-NC NCCER Module 28206 (w PP)	120	167	71.9%
IC13-NC NCCER Module 28207 (w PP)	113	167	67.7%
IC21-NC NCCER Module 27101	3,669	4,747	77.3%
IC21-NC NCCER Module 27102 (w PP)	3,007	4,748	63.3%

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IC21-NC NCCER Module 27103 (w PP)	3,030	4,747	63.8%
IC21-NC NCCER Module 27104 (w PP)	2,793	4,747	58.8%
IC21-NC NCCER Module 27105 (w PP)	2,704	4,747	57.0%
IC21-NC NCCER Module 27110 (w PP)	2,629	4,748	55.4%
IC21-NC NCCER Module 27111 (w PP)	2,743	4,746	57.8%
IC22-NC NCCER Module 27109 (w PP)	1,192	1,983	60.1%
IC22-NC NCCER Module 27112 (w PP)	1,185	1,983	59.8%
IC22-NC NCCER Module 27202 (w PP)	1,205	1,984	60.7%
IC22-NC NCCER Module 27203 (w PP)	1,064	1,984	53.6%
IC22-NC NCCER Module 27204 (w PP)	1,161	1,984	58.5%
IC23-NC NCCER Module 27201 (w PP)	182	240	75.8%
IC23-NC NCCER Module 27205 (w PP)	176	240	73.3%
IC23-NC NCCER Module 27206 (w PP)	169	240	70.4%
IC23-NC NCCER Module 27207 (w PP)	166	240	69.2%
IC23-NC NCCER Module 27208 (w PP)	140	240	58.3%
IC23-NC NCCER Module 27210 (w PP)	151	240	62.9%
IC41-NC NCCER Module 26101	770	1,064	72.4%
IC41-NC NCCER Module 26102 (w PP)	612	1,064	57.5%
IC41-NC NCCER Module 26103	730	1,064	68.6%
IC41-NC NCCER Module 26104	624	1,064	58.6%
IC41-NC NCCER Module 26105 (w PP)	570	1,064	53.6%
IC41-NC NCCER Module 26106 (w PP)	597	1,064	56.1%
IC41-NC NCCER Module 26107 (w PP)	545	1,064	51.2%
IC41-NC NCCER Module 26108 (w PP)	551	1,064	51.8%
IC42-NC NCCER Module 26109 (w PP)	232	380	61.1%
IC42-NC NCCER Module 26110 (w PP)	217	380	57.1%
IC42-NC NCCER Module 26111 (w PP)	218	380	57.4%
IC42-NC NCCER Module 26112 (w PP)	232	380	61.1%
IC42-NC NCCER Module 26201	258	380	67.9%
IC42-NC NCCER Module 26202 (w PP)	183	380	48.2%
IC42-NC NCCER Module 26203 (w PP)	209	380	55.0%
IC42-NC NCCER Module 26209 (w PP)	202	380	53.2%
IC43-NC NCCER Module 26204 (w PP)	10	20	50.0%
IC43-NC NCCER Module 26205 (w PP)	11	20	55.0%
IC43-NC NCCER Module 26206 (w PP)	11	20	55.0%
IC43-NC NCCER Module 26207 (w PP)	10	20	50.0%
IC43-NC NCCER Module 26208 (w PP)	9	20	45.0%
IC43-NC NCCER Module 26210 (w PP)	11	20	55.0%
IC43-NC NCCER Module 26211 (w PP)	11	20	55.0%
IC61-Autodesk Cert User AutoCAD	3,027	6,836	44.3%
IC62-Autodesk Cert User Revit	951	1,518	62.6%
IC63-Autodesk Cert Prof Revit	0	287	0.0%
ID10-FAA Trust	829	984	84.2%
ID11-CFR 14 Pt 107 UAS Remote Pilot	343	1,234	27.8%

ID11-NCDOT NC UAS Operator Permit	491	1,234	39.8%
ID12-Esri Drone2Map	93	165	56.4%
ID12-NFPA 2400	106	165	64.2%
II12-CCT Routing and Switching	4	69	5.8%
II21-CompTIA A Plus 220-1101	66	580	11.4%
II21-CompTIA IT Fundamentals Plus	12	579	2.1%
II22-CompTIA A Plus 220-1102	21	175	12.0%
II41-ACP 2020 or above Illustrator	6,380	12,203	52.3%
II41-ACP 2020 or above Photoshop	7,563	12,202	62.0%
II42-ACP 2020 or above InDesign	1,013	1,391	72.8%
II43-ACP 2020 or above Dreamweaver	306	700	43.7%
II45-ACP 2020 or above Premiere Pro	1,866	3,147	59.3%
IK66-ACP 2020 or above Premiere Pro	0	155	0.0%
IK67-ACP 2020 or above Premiere Pro	0	39	0.0%
IK68-Cert Manufacturing Assoc CMfgA	11	76	14.5%
IL53-NC Boater Education Cert	79	128	61.7%
IL54-NC NCCER Module 29101	24	51	47.1%
IL54-NC NCCER Module 29102	6	51	11.8%
IL54-NC NCCER Module 29105	4	51	7.8%
IL54-NC NCCER Module 29108	9	51	17.6%
IL54-NC NCCER Module 84101	22	51	43.1%
IL54-NC NCCER Module 85101	24	51	47.1%
IL54-NC NCCER Module 85102	11	51	21.6%
IL54-NC NCCER Module 85103	19	51	37.3%
IL54-NC NCCER Module 85104	15	51	29.4%
IL54-NC NCCER Module 85105	20	51	39.2%
IL54-NC NCCER Module 85106	24	51	47.1%
IL55-NC NCCER Module 03101	85	111	76.6%
IL55-NC NCCER Module 03102	77	111	69.4%
IL55-NC NCCER Module 03103 (w PP)	85	111	76.6%
IL55-NC NCCER Module 03104 (w PP)	70	111	63.1%
IL55-NC NCCER Module 03105 (w PP)	57	111	51.4%
IL55-NC NCCER Module 03106 (w PP)	66	111	59.5%
IL55-NC NCCER Module 03107 (w PP)	72	111	64.9%
IL55-NC NCCER Module 03108 (w PP)	59	111	53.2%
IL55-NC NCCER Module 03109 (w PP)	63	111	56.8%
IL56-NC NCCER Module 03205 (w PP)	8	32	25.0%
IL56-NC NCCER Module 03206 (w PP)	9	32	28.1%
IL56-NC NCCER Module 03210 (w PP)	6	32	18.8%
IL56-NC NCCER Module 03211 (w PP)	8	32	25.0%
IL56-NC NCCER Module 03301 (w PP)	4	32	12.5%
IL56-NC NCCER Module 03311 (w PP)	6	32	18.8%
IL57-NC NCCER Module 03202	1	3	33.3%
IL57-NC NCCER Module 03209 (w PP)	0	3	0.0%

IL57-NC NCCER Module 03213	1	3	33.3%
IL57-NC NCCER Module 03302 (w PP)	0	3	0.0%
IL57-NC NCCER Module 03303 (w PP)	0	3	0.0%
IL57-NC NCCER Module 03314 (w PP)	0	3	0.0%
IL58-NC NCCER Module 02101	24	40	60.0%
IL58-NC NCCER Module 02102 (w PP)	18	40	45.0%
IL58-NC NCCER Module 02103 (w PP)	18	40	45.0%
IL58-NC NCCER Module 02104 (w PP)	18	40	45.0%
IL58-NC NCCER Module 02105 (w PP)	17	40	42.5%
IL58-NC NCCER Module 02106 (w PP)	18	40	45.0%
IL58-NC NCCER Module 02107 (w PP)	17	40	42.5%
IL58-NC NCCER Module 02108 (w PP)	18	40	45.0%
IL58-NC NCCER Module 02109 (w PP)	15	40	37.5%
IL58-NC NCCER Module 02110 (w PP)	16	40	40.0%
IL59-NC NCCER Module 02111 (w PP)	11	12	91.7%
IL59-NC NCCER Module 02112 (w PP)	12	12	100.0%
IL59-NC NCCER Module 02201 (w PP)	12	12	100.0%
IL59-NC NCCER Module 02202 (w PP)	11	12	91.7%
IL59-NC NCCER Module 02203 (w PP)	12	12	100.0%
IL59-NC NCCER Module 02204 (w PP)	10	12	83.3%
IL59-NC NCCER Module 02205 (w PP)	9	12	75.0%
IL59-NC NCCER Module 02207 (w PP)	11	12	91.7%
IM11-CPT - Maintenance Awareness	179	882	20.3%
IM11-CPT - Safety	319	882	36.2%
IM11-OSHA 10-Hr Industry Cert - Mfg	416	881	47.2%
IM12-CPT - Mfg Processes and Prod	53	297	17.8%
IM12-CPT Qual Practices and Measure	74	297	24.9%
IM14-FCR-01 FANUC Cert Robot Op 1	0	40	0.0%
IM21-OSHA 10-Hr Construction Cert	736	2,145	34.3%
IM22-OSHA 10-Hr Construction Cert	196	721	27.2%
IM22-WCA Sawblade	315	856	36.8%
IM31-ETA EM1	97	423	22.9%
IM32-ETA EM4	51	159	32.1%
IM33-ETA EM2	15	50	30.0%
IM41-NIMS Measurmnt Mtrls and Sfty	118	611	19.3%
IM42-NIMS Job Ping Benchwork Layout	33	226	14.6%
IM43-NIMS Milling I	0	29	0.0%
IM61-AWS SENSE Mod 8: Thermal Cut	91	1,090	8.3%
IM61-AWS SENSE Module 2: Safety	120	1,090	11.0%
IM61-OSHA 10-Hr Construction Cert	108	1,078	10.0%
IM61-S/P2 Weld Sfty Poll Prevent	77	1,090	7.1%
IM62-AWS SENSE Mod 3: Draw and Weld	132	591	22.3%
IM62-AWS SENSE Mod 9: Inspect Test	118	591	20.0%
IM62-AWS SENSE Module 4: SMAW	101	591	17.1%

IM62-Cert Welder per AWS D1.1 SMAW	45	591	7.6%
IM63-AWS SENSE Entry Welder FCAW	8	145	5.5%
IM63-AWS SENSE Entry Welder GMAW	8	145	5.5%
IM63-Cert Welder per AWS D1.1 FCAW	4	145	2.8%
IM63-Cert Welder per AWS D1.1 GMAW	4	145	2.8%
IP11-Law and Pub Sfty Intro Comp	3,884	6,362	61.0%
IP11-NIMS (DHS/FEMA) IS-100	3,874	6,360	60.9%
IP11-NIMS (DHS/FEMA) IS-200	3,757	6,360	59.1%
IP11-NIMS (DHS/FEMA) IS-700	3,846	6,360	60.5%
IP11-NIMS (DHS/FEMA) IS-800	3,560	6,360	56.0%
IP12-Community Emerg Resp Team CERT	768	1,104	69.6%
IP12-NECI 911 Basic Communications	536	1,104	48.6%
IP21-(DHS/FEMA) IS-100	131	342	38.3%
IP21-(DHS/FEMA) IS-200	126	343	36.7%
IP21-(DHS/FEMA) IS-700	136	341	39.9%
IP21-(DHS/FEMA) IS-800	125	343	36.4%
IP21-Basic Life Support	227	362	62.7%
IP21-Emergency Med Responder EMR	61	365	16.7%
IP21-Stop the Bleed	183	365	50.1%
IP22-Emergency Med Technician EMT	45	239	18.8%
IP31-NCOSFM FF Fire Ops 1 FIP 3041	686	1,445	47.5%
IP31-NCOSFM FF Fire Ops 2 FIP 3042	658	1,446	45.5%
IP31-NCOSFM FF Fire Ops 3 FIP 3043	617	1,446	42.7%
IP31-NCOSFM FF Fire Ops 4 FIP 3044	435	1,446	30.1%
IP31-NCOSFM FF Gen and Com FIP 3040	546	1,446	37.8%
IP32-NCOSFM Emerg Med Care FIP 7001	318	558	57.0%
IP32-NCOSFM FF Fire Ops 5 FIP 3045	334	558	59.9%
IP32-NCOSFM FF Fire Ops 6 FIP 3046	359	558	64.3%
IP32-NCOSFM FF Fire Ops 7 FIP 3047	310	558	55.6%
IP32-NCOSFM FF Fire Ops 8 FIP 3048	248	558	44.4%
IP33-FF Fire and Life Saf FIP 3051	156	227	68.7%
IP33-FF RIC Mayday Saf Sur FIP 6413	150	227	66.1%
IP33-NCOSFM FF Rescue Ops1 FIP 3050	168	227	74.0%
IP33-NCOSFM HM Ops FIP 3556	105	227	46.3%
IP33-NCOSFM TIMS FIP 7000	185	227	81.5%
IP41-Natl Law Enforcement Cert SPSS	1,026	1,829	56.1%
IP42-Cert Protection Officer CPO	322	399	80.7%
IP51-NC Emergency Mgmt I IS-120	122	140	87.1%
IP51-NC Emergency Mgmt I IS-2200	119	140	85.0%
IP51-NC Emergency Mgmt I IS-230	123	140	87.9%
IP51-NC Emergency Mgmt I IS-235	125	140	89.3%
IP51-NC Emergency Mgmt I IS-240	122	140	87.1%
IP51-NC Emergency Mgmt I IS-241	122	140	87.1%
IP51-NC Emergency Mgmt I IS-242	120	140	85.7%

IDE1 NC Emergency Mamt LIC 244	122	140	87.1%
IP51-NC Emergency Mgmt I IS-244			
IP51-NC Emergency Mgmt I IS-288	121	140	86.4%
IP51-NC Emergency Mgmt I IS-559	113	140	80.7%
IP51-NC Emergency Mgmt I IS-703	119	140	85.0%
IP51-NC Emergency Mgmt I IS-706	120	140	85.7%
IP51-NC Emergency Mgmt I IS-909	124	140	88.6%
IT11-S/P2 Auto Srvc Poll Prevent	4,021	6,913	58.2%
IT11-S/P2 Automotive Service Safety	4,365	6,913	63.1%
IT17-ASE EntryLvl-Brakes	284	1,499	18.9%
IT17-ASE EntryLvl-Mtce Light Repair	375	1,499	25.0%
IT18-ASE Auto Mtce Light Repair G1	37	344	10.8%
IT18-ASE EntryLvl-Elc/Elctrnc Sys	71	344	20.6%
IT30-S/P2 Coll Rpr and Refnsh Sfty	85	352	24.1%
IT30-S/P2 Coll Rpr/Rfnsh-Poll Prev	78	352	22.2%
IT32-ICAR Platnm ProLvI 1 NonStruct	39	50	78.0%
IT33-ASE EntryLvl Painting/Refnshng	0	59	0.0%
IT33-ICAR Platinm ProLvI 1 Refinish	39	59	66.1%
IV22-Autodesk Cert User Inventor	482	855	56.4%
IV22-Cert SolidWorks Associate CSWA	28	855	3.3%
IV23-Autodesk Cert Prof Inventor	0	168	0.0%
IV23-Cert SolidWorks Prof CSWP	0	170	0.0%
MA52-Customer Service and Sales	273	1,482	18.4%
MA52-Fundamental Marketing Concepts	130	1,485	8.8%
ME11-Venture Entrepreneurial Exped	6,908	16,904	40.9%
ME12-Entrepreneurship and Small Bus	345	2,409	14.3%
ME12-Venture Entrepreneurial Exped	587	2,018	29.1%
MH42-Cert Guest Srvc Prof CGSP	615	2,160	28.5%
ML05-Salesforce Administrator Cert	0	28	0.0%
TE21-OSHA 10-Hr Industry Cert	0	28	0.0%
TE22-OSHA 10-Hr Industry Cert	0	18	0.0%
TL51-Autodesk Cert User 3DS Max	0	170	0.0%
TR14-NI Cert LabVIEW Assoc Dev CLAD	0	15	0.0%
TS25-Autodesk Cert User 3DS Max	300	1,201	25.0%
TS25-Autodesk Cert User Maya	0	1,201	0.0%
TV14-NI Cert LabVIEW Assoc Dev CLAD	0	2	0.0%

## STRATEGIC PLANNING FOR CREDENTIAL ATTAINMENT IMPROVEMENT

Based on research, best practices for improving credential attainment include:

- 1. Creating a clear communication plan. Providing clear, credible information that communicates career, postsecondary education, and economic benefits is a priority for improving credential opportunities and attainment (Education Strategy Group et al., 2018). Reeves (2009) shared that the role of leadership of an organization is to communicate the essential message of change. CTE leadership should develop an intentional communication plan to share with stakeholders the benefits and importance of high school students earning industry-recognized credentials. Networks of teachers, administrators, counselors, industry partners, and community organizations should be formed to help deliver and perpetuate the message of credentialing throughout the school community. Any efforts to improve credential attainment will be less effective without community involvement and engagement.
- 2. Forming CTE/Counseling collaborative teams. According to Rosen and Milano (2019), the need exists across secondary education for better advising to explain immediate and long-term benefits for specific opportunities to students as they make decisions that impact their futures. A major challenge for access in high-quality CTE and related to counseling and advising is the information available to students and parents. School counselors influence which students receive messages about specific opportunities and need to have the most up-to-date knowledge about what is available and which courses form pathways aligned to industry-recognized credentials (Rosen & Milano, 2019). Establishing CTE/Counseling collaborative teams should allow CTE leadership and school counselors to regularly communicate regarding opportunities available to students through CTE, pathways and courses, and postsecondary paths open to students based on CTE experiences in high school, Additionally, CTE leadership and school counselors will be able to collaborate on the creation of program marketing and recruitment tools to help share opportunities with students and parents. Creating and using resources to distribute messages about CTE opportunities equitably and widely is important to improving credential attainment and should be an aim of the CTE/Counseling collaborative teams (Rosen & Molina, 2019).
- 3. Identifying high-quality industry recognized credentials and intentionally aligning those credentials to CTE pathways By delineating between low-value and high-value credentials, students can make wise choices about which credentials to earn for the greatest long-term impact. The process to identify high-value credentials includes identifying occupations that are high-skill and high-wage and then connecting the associated credentials to include in high school programming (Mathers, 2018). Establishing high-quality credentials requires industry and education leaders to come together and collaborate, determining which credentials are valuable and where the credentials align to curriculum. When respected industry leaders and organizations unite to establish and promote high-quality credentials, others are motivated to get involved in the work of credentialing students (Rimland & Raish, 2019). Three intentional actions are suggested to propel the work of identifying high-quality credentials and include
  - a. building stronger employer use of credentialing through job postings, higher wages for high-quality credentials, and the utilization of common credentials across an industry sector;
  - identifying credentials aligned to postsecondary education and training to potential credit for students with college-level course hours in core areas; and,
  - building a crosswalk of prioritized industry-recognized credentials that span both the education system and the workforce system (Education Strategy Group et al., 2018).

State education leaders, business and industry executives, and community workforce development agencies have power to produce improvement in credentialing efforts when united in the implementation of these strategies (Education Strategy Group et al., 2018).

## CONCLUSION

While the impact of COVID-19 and the transition from Perkins IV to Perkins V contributed to lower credential earning in 2020-2021, both factors also contributed to leaders across NC CTE thinking creatively and critically about credentialing practices and processes. Additional funding and strategic planning supported the improvement of credential attainment in 2021-2022 to almost double the attainment from 2020-2021. The positive trend in credential attainment continued through the 2022-2023 school year with 41% of available credentials being earned by students across the state. NC CTE is committed to continuous improvement by creating expanded opportunities for students to earn credentials, while supporting PSU leaders and teachers to make the industry-recognized credentials of value available across the state.

NC CTE priorities for improving the secondary credentialing efforts include the following actions.

- Incorporating credentialing information with the newly legislated Career Development Plans as a best practice.
- Enhancing the CTE data and information portal, NC CTE Admin, with an electronic, searchable Credential Directory.
- Continuing to improve the process for vetting and approving new credentials, while focusing on an alignment to the NC Workforce credentials of value.
- Supporting PSUs in the implementation of existing credential opportunities.
- Continuing to increase the efficiency and accuracy in the process for collecting and reporting earned credentials.
- Continuing to support PSUs to interpret and utilize credential data. Through an Opportunity Gap
  Analysis Workshop, PSUs will learn to implement a cycle of data analysis and improvement
  planning that involves a cyclical approach of gathering data, identifying gaps, exploring root causes,
  and developing and implementing action plans to close opportunity gaps.
- Developing a NC CTE Data Dashboard to assist PSUs with data analysis to identify gaps and missed opportunities to credential students.

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Contact Information	
The 2021-2022 NC CTE Credential Attainment Data report provides a detailed analysis of credentials earned by secondary NC CTE students. It includes statewide, regional, and individual Public School Unit information.	
For more information about this report or credentialing data in NC, please contact Dr. Nancy Cross, Section Chief for Reporting and Analysis, at (984) 236-2890 or Nancy.Cross@dpi.nc gov	