

# Report to the North Carolina General Assembly

Access to Increase Successful Career and Technical Education (CTE)
Participation

Session Law 2013-360

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## Access to Increase Successful Career and Technical Education Participation

Session Law 2013-360 Section 8.28 charged the State Board of Education with administration and reporting related to increasing the number of industry-recognized credentials earned by high school Career and Technical Education (CTE) students. Funds were made available in the law to financially support students on their first attempt to earn industry credentials that were aligned to the course(s) they were taking in CTE. Funds were allotted to local education agencies (LEAs) based on student enrollment in courses that were aligned to credentials. The funds allotted were sufficient to pay for approximately 15% of the total cost of every student sitting for the tests. LEAs determined the focus area for the funds they were allotted and also determined processes locally for the distribution of funds. LEAs were strongly encouraged to align the funding to the local economic and workforce needs as determined by business and industry.

Table 1 below details the increase in credentials earned from 2010 to the end of the 2013-14 academic year. The achievement of 115,005 credentials represents about a 10% increase over the prior year.

Table 1

Number of Industry-Recognized Credentials Earned by NC CTE Students by School Year			
2010-2011	2011-2012	2012-2013	2013-2014
24,782	91,629	104,375	115,005

The data above represents the number of credentials earned and does not represent the number of students that may have earned a credential since some students earn more than one credential in an academic year. The number is significant and demonstrates that nearly 1 in 5 CTE enrollments returns the acquisition of a credential.

North Carolina is a leader in the nation in the alignment of CTE secondary coursework to industry credentials. The Department of Public Instruction (DPI) has created systems and processes that promote course standards aligned to industry standards and developed systems to report the student-level data. DPI supports local and regional career pathways frameworks that will further align credentials in demand with course work in high school and lead to better placement opportunities for students.

With all of the progress that we have made, there are still challenges and cautions to be considered:

- Most industry credentials are awarded by third parties. When DPI does not have statewide agreement for data sharing, all data may not be reported. If the achievement does not come from the authoritative source (the third party), we must depend on self reporting by students.
- Credentials have different levels of rigor and are valued differently in the economy.

- The cost of the industry tests will continue to be a challenge.
- The number and types of credentials differ by industry sector. There are many valuable CTE programs offered throughout the state that simply do not have credentials that align. DPI supports the continued offering of these programs that are connected to economic and workforce development needs even if there is not an identified credential.

More detailed information on the credential types earned as well as detailed information about the number earned for each LEA and CTE region can be found in the 2013-14 Career and Technical Education Credential Report attached hereto and made a part hereof by this reference.

Section 8.28 also requires the State Board of Education to report on the number of credits earned by secondary students in CTE Career and College Promise (CCP) courses. The CCP program requires local community colleges to gain approval from North Carolina Community College System Office before the CTE courses can be offered. CTE courses intended to be offered in pathways that lead to community college certificates and generally CTE pathways contain at least four technical courses.

Table 2 below reports the number of CCP CTE enrollments for each LEA and charter school. Enrollment numbers below do not reflect the credit hours earned and may include duplicated student counts as some students take more than one course in the pathway each academic year. The opportunity for 16,775 enrollments by high school students is significant in the value of the credits earned. Collaboration between community colleges and LEAs has created pathways that blend secondary CTE courses and post-secondary CTE courses to produce a graduate with foundational and technical skills along with industry or college credentials that validate their readiness for work.

Table 2

LEA/Charter School	CCP CTE Enrollment*
Alamance-Burlington	640
Alexander County	15
Anson County	12
Asheboro City	156
Ashe County	39
Ashville City	2
Beaufort County	130
Bertie County	2
Bladen County	128
Brunswick County	103
Buncombe County	1363
Burke County	82
Cabarrus County	71
Caldwell County	131
Carteret County	8
Caswell County	419

LEA/Charter School	CCP CTE Enrollment*
Catawba County	253
Chapel Hill – Carrboro	134
Chatham County	241
Cherokee County	168
Clay County	3
Cleveland County	430
Clinton City	5
Columbus County	15
Craven County	7
Crossnore Academy (Avery County)	1
<b>Cumberland County</b>	796
Currituck County	6
Dare County	19
Davidson County	89
Davie County	33
<b>Duplin County</b>	103
Durham County	38
East Wake Academy (Wake County)	1
Edgecombe County	150
Edenton/Chowan	34
Elkin City	4
Forsyth County	55
Franklin County	11
Gaston County	83
Gates County	7
Graham County	85
Granville County	22
Greene County	129
Guilford County	5
Halifax County	1
Harnett County	228
Haywood County	171
Henderson County	297
Hertford County	60
Hickory City	132
Hoke County	87
Hyde County	1
Iredell-Statesville	25
Jackson County	119

LEA/Charter School	CCP CTE Enrollment*
Johnson County	255
Jones County	78
Kannapolis City	50
Kings Mountain	149
Lee County	181
Lenoir County	112
Lexington City	10
Lincoln County	112
Macon County	133
Madison County	104
Martin County	22
McDowell County	4
Mecklenburg County	82
Mitchell County	200
Montgomery County	173
Moore County	99
Mooresville City	5
Mount Airy City	24
Nash - Rocky Mount	576
New Hanover County	50
Newton-Conover	28
Northampton County	33
Onslow County	10
Orange County	171
Pamlico County	57
Pender County	44
Perquimans County	5
Person County	227
Pitt County	386
Polk County	87
Randolph County	204
Richmond County	34
River Mill Academy (Alamance-Burlington County)	98
Roanoke Rapids City	9
Robeson County	16
Rockingham County	29
Rowan – Salisbury	123
Rutherford County	612
Sampson County	76

LEA/Charter School	CCP CTE Enrollment*
Scotland County	107
Shelby City	56
Stanly County	55
Stokes County	14
Surry County	117
Swain County	73
Thomasville City	1
Transylvania County	93
Union County	32
Vance County	2
Wake County	266
Warren County	49
Washington County	38
Watauga County	146
Wayne County	158
Weldon City	3
Wilkes County	586
Wilson County	269
Yadkin County	14
Yancey County	246
Unknown**	2433
Grand Total	16775
* Data from North Carolina Community Callege Cy	otare Office

<sup>\*</sup> Data from North Carolina Community College System Office

Many of the enrollments are students in their junior and senior years in high school who are completing the courses as part of plans for further education or in preparation for particular careers. The total above represents a 24.3 percent increase over the 13,507 reported in 2012-13. As education partners work more strategically with business and industry partners to develop pathways, participation in CCP CTE courses will likely continue to grow. The development of additional pathways will also strengthen to connection between the education plans and local economic and workforce demands.

Table 3 details the course names and total enrollment for each course statewide.

<b>Course Description</b>	Statewide Enrollment
2D Design and Animation I	1
3D Design and Animation I	8
3D Modeling	20
Active Server Pages	1
Admin Office Proc I	15
Admin Office Proc II	11

<sup>\*\*</sup>Students did not identify a school system.

Course Description	Statewide Enrollment
Adv Auto Electricity Lab	7
Adv Engine Performance	3
Adv Hard/Software Support	35
Adv Issues/School Age	7
Adv Transp Electronics	2
Adv. Friction Ridge Analy	15
Adv. Router & Switching I	7
Adv.Router & Switching II	6
Advanced CNC Milling	4
Advanced Visual BASIC	5
Ag Law & Finance	1
Agricultural Marketing	1
Air Brakes	1
Air Navigation	1
Algebra/Trigonometry I	2
Animal Feeds & Nutrition	20
Animal Health Management	15
Animal Science	33
Appl Software for Tech	6
Applications Project	12
Applied Animal Behavior	1
Applied Mathematics I	5
Applied Plant Science	2
Aquaculture I	2
Aquaculture II	1
Aquaculture Practicum I	1
Aquaculture Practicum II	1
Architectural CAD	43
Architectural CAD Lab	7
Audio/Radio Production I	6
Auto Restoration Research	11
<b>Autobody Estimating</b>	1
Autobody MIG Welding	3
Automotive Detailing	3
Automotive Servicing	5
Aviation Meteorology	1
Baking I	11
Baking I Lab	10
Barbering Clinic I	15

Course Description	Statewide Enrollment
Barbering Clinic II	14
Barbering Concepts I	15
Barbering Concepts II	14
Basic CAD	9
Basic Construction Skills	1
Basic Culinary Skills	14
Basic Farm Maintenance	1
Basic PC Literacy	16
Basic Studio Lighting	6
Basic Transp Electrical Lab	19
Basic Transp Electricity	135
Basic Welding for Transp	56
Basic Welding for Transp Lab	6
<b>Basic Welding Processes</b>	245
Basic Wiring I	34
Beef Production	12
Bioethics	3
Biomanufacturing Tech. I	1
Blueprint Reading	88
Blueprint Reading/Const	49
Blueprint Reading/Mach I	14
Blueprint Reading/Mach II	1
Blueprint Reading: Mech	1
<b>Body Shop Operations</b>	1
Brake Systems	126
Brake Systems Lab	107
Broadcast Law & Ethics	9
Broadcast Sales	4
Broadcast Speech I	3
Broadcast Writing	4
<b>Building Construction</b>	18
<b>Business Communication</b>	1
<b>Business Ethics</b>	6
Business Law I	121
<b>Business Math</b>	4
C++ Programming	1
CAD I	42
CAD II	12
CAD III	7

Course Description	Statewide Enrollment
Calculus I	1
Calculus II	1
Carpentry I	64
Carpentry II	19
Certification Practices	5
Chassis Elec & Elect Lab	7
Child Development I	80
Child Development II	40
Child Guidance	29
Child, Family, & Commun	48
Children with Sp Needs	1
Civil Liability	30
CNC Graphics Prog: Milling	1
CNC Graphics Prog: Turning	1
CNC Milling	18
CNC Turning	13
Codes and Inspections	6
College Algebra	80
College Algebra Lab	18
College Physics I	3
Comfort Cooling	13
<b>Community Policing</b>	64
<b>Community-Based Corrections</b>	12
Comprehensive Keyboarding	22
Computer Crime Invest.	3
Computer Design Basics	26
Computer Design Tech I	23
Computer Graphics I	45
Computer Graphics II	22
Conceptual Physics	12
Conceptual Physics Lab	12
Constitutional Law	248
Constr Matls & Methods	8
Construction Doc Analysis	1
Construction I	6
Construction II	6
Contemporary Design	2
Content Management Sys	1
Corrections	73

Course Description	Statewide Enrollment
Cosmetology Concepts I	449
Cosmetology Concepts II	102
Cosmetology Concepts III	36
Cosmetology Concepts IV	16
Counseling	6
Court Procedure & Evidence	142
CPT Coding in the Med Off	18
Creative Activities	35
Creative Activities Lab	8
Crime Scene Processing	33
Criminal Law	527
Criminalistics	25
Criminology	688
Crisis Intervention	23
<b>Cutting Processes</b>	380
Data Comm/Networking	27
Database Concepts	8
DC/AC Circuit Analy. Lab	1
DC/AC Circuit Analysis	17
DC/AC Electricity	41
DEAT Modeling	10
Dendrology	1
Design Applications I	1
<b>Detection &amp; Investigation</b>	36
Diagnostic Coding	18
Diagrams and Schematics	1
Diesel Electrical Systems	3
Diesel Engines	4
Digital Applications	3
Digital Electronics	5
Digital Video Prod & Ed	167
Disaster Resp Ops Mgt.	1
Drawing Fundamentals I	15
Early Child Intro Pract	15
Early Childhood Ed	227
Early Exp/Prosp Teachers	1
Editing I	8
Effective Teach Train	11
<b>Electrical Computations</b>	2

Course Description	Statewide Enrollment
Electrical Systems	26
Electrical Wiring Systems	7
Emerg Vehicles & EMS Comm	22
<b>Emergency Management</b>	15
Emerging Web Technologies	8
EMS Management	15
EMT-Basic	91
Eng and Design Graphics	7
Eng Comp and Careers	6
Engine Performance 1 Lab	62
<b>Engine Performance-Electrical</b>	108
Engine Performance-Fuels	25
Engine Repair	67
Engine Repair Lab	26
<b>Engineering Graphics</b>	15
<b>Engineering Materials</b>	3
Entrepreneurship I	3
Envir Health & Safety	2
Esthetics Concepts I	2
Esthetics Concepts II	1
Esthetics Salon I	2
Esthetics Salon II	1
Ethics & Comm Relations	275
<b>Exploration Activities</b>	1
Express/Lin Equat/Inequal	1
Fabrication I	15
Fall Gardening Lab	1
Farm Business Management	1
Financial Planning	26
Fire Fighting Strategies	25
Fire Prevention & Public	56
Fire Protection Law	7
Fit and Well for Life	3
Flight-Private Pilot	1
Food & Beverage Serv Lab	1
Food & Beverage Service	1
Footwear and Tire Imprint	16
Forest Measurements	1
Foundations in Education	27

Course Description	Statewide Enrollment
Friction Ridge Analysis	19
Fund of Photography	7
Gardemanger I	13
Geriatrics	32
GMAW (MIG) FCAW/Plate	209
GMAW (MIG) Plate/Pipe	3
Graphic Arts I	12
Graphic Arts Orientation	2
Graphic Design I	31
Graphic Design II	4
Graphs/Equations of Lines	1
Green Building Concepts	2
<b>Greenhouse Operations</b>	7
<b>Greenhouse Production</b>	1
GTAW (TIG) Plate	174
GTAW (TIG) Plate/Pipe	3
Hardware/Software Support	65
Health, Safety, & Nutrit	58
Heat Pump Technology	10
Heating Technology	22
Home Health Care	72
Home Health Clinical	3
Hort Pest Management	3
Hosp Human Resource Mgt	1
Human Resource Management	1
Human Services Issues	1
HVACR Building Code	18
<b>HVACR Customer Relations</b>	1
HVACR Electricity	21
Hydraulics/Pneumatics I	53
Image Manipulation I	34
Image Manipulation II	10
Individual Income Taxes	1
Industrial Controls	13
Industrial Electronics	16
Industrial Fire Protect	5
Industrial Safety	68
Industrial Wiring	1
Inert Gas Welding	23

Infants, Toddlers, & Twos	11
Info Sys Business Concept	1
Inspection & Testing	7
Inspection and Codes	1
Instruc Strat/Read & Writ	3
Intermediate Photography	4
International Business	57
Internet Comm/Research	80
Internet/Web Fund	56
Interviews/Interrogations	184
Intro Internet Multimedia	13
Intro Landscape Design	7
Intro Solid Model/Render	3
Intro to Animal Care	3
Intro to Arch Technology	11
Intro to Auto Technology	14
Intro to Automation	1
Intro to Basic Plumbing	7
Intro to Biomed Field	1
Intro to Broadcasting	12
Intro to CAD/CAM	16
Intro to CET	6
Intro to CNC	19
Intro to Criminal Justice	527
Intro to Digital Imaging	4
Intro to Digital Media	1
Intro to Electricity	2
Intro to Engineering	26
Intro to Engineering Tech	3
Intro to Entrepreneurship	1
Intro to Fire Protection	65
Intro to Forest Resources	2
Intro to GD & T	8
Intro to Healthcare Mgt	8
Intro to Horticulture	2
Intro to Human Services	5
Intro to Maint Procedures	8
Intro to Masonry	10
Intro to Metrology	2

Course Description	Statewide Enrollment
Intro to Office Systems	1
Intro to Paralegal Study	1
Intro to PLC	29
Intro to Pottery	1
Intro to Prog & Logic	42
Intro to Refrigeration	20
Intro to Sustain Design	5
Intro to Sustainable Ag	25
Intro to Sustainable Transp	4
Intro to Technology	4
Intro to Technology Lab	4
Intro to Transport Tech	228
Intro to Web Graphics	17
Introduction to A & P	3
Introduction to Business	280
Introduction to Carpentry	15
Introduction to Communication	2
Introduction to Computers	857
Introduction to DEAT	15
Introduction to Logistics	1
Introduction to Pharmacy	1
Introduction to SGD	29
Introductory Geology	1
Investigative Photography	279
Investigative Principles	101
JAVA Programming	3
Job Plan, Bench & Layout	4
Juvenile Justice	335
Keyboard Skill Building	7
Keyboarding	13
Landscape Construction	29
Landscape Design I	8
Law Enforcement Operations	202
Law Pertaining to Animals	1
Life Span Changes	7
Literacy Experiences	10
Livestock Prod Issues	12
Local Govt Finance	1
Machine Processes II	3

Course Description	Statewide Enrollment
Machines Processes I	8
Machining Applications I	36
Machining Calculations	18
Machining Technology I	32
Machining Technology II	9
Mammal Taxidermy	1
Manicure/Nail Tech. II	33
Manicure/Nail Technology I	53
Manual Drive Trains/Axles	1
Manual Milling/Drilling	6
Manufacturing Proc I Lab	7
Manufacturing Processes I	16
Mathematical Models	3
Measure/Material & Safety	16
Mechanical Fuel Injection	5
Mechanical Orientation	1
Mechanical Transmissions	2
Med Coding Billing & Insu	35
Med Terms II-Med Office	44
Med Terms I-Med Office	174
Med/Hvy.Duty Brake System	5
Media Tech for Teachers	5
Medical Law and Ethics	60
Medical Legal Issues	39
Medical Terminology I	291
Medical Terminology II	124
Mfg Materials I	29
Mitigation & Preparedness	1
Mobile Web Design	7
Motors and Controls	20
Multimedia Production	3
National Electrical Code	6
NEC Calculations	4
Non-Structural Damage I	77
Non-Structural Damage II	26
Nursery Production	2
Nursing Assistant I	325
Nursing Assistant II	28
Nutrition for Foodservice	16

Course Description	Statewide Enrollment
Office Software Appls	1
Office Systems Management	1
Operating System Concepts	43
Operations with Integers	2
Organic Crop Prod: Spring	24
Organized Crime	1
<b>Orientation to Health Careers</b>	10
Orientation to Med Assist	84
OSHA Standards	1
OSHA/Safety/Certification	5
Outboard Powerhead Systems	1
Oxy-Fuel Welding	19
Painting & Refinishing I	79
Painting & Refinishing II	3
Pc Skills for Transp	42
Personal Finance	10
Personal Health/Wellness	29
Pharmacology I	1
Pharmacology II	1
Pharmacy Calculations	1
Photographic Imaging I	204
Photographic Imaging II	197
Photovoltaic Sys Tech	3
Physical Fitness I	6
Physical Metallurgy	1
Plant Materials I	24
Plant Propagation	3
Plant Science	5
Plastics & Adhesives	5
Polynomial/Quadratic Appl	1
Poultry Production	11
Power Trains	2
Precalculus	1
Precalculus Algebra	32
Precalculus Algebra Lab	18
Precalculus Lab	1
Precalculus Trig Lab	12
Precalculus Trigonometry	15
Preventive Maintenance	2

Course Description	Statewide Enrollment
Prin & Elem of Design I	11
Prin Of Accounting I	32
Prin of Accounting II	3
Principles of Management	118
Principles of Marketing	37
Private Pilot Flt Theory	1
Production Specialities I	12
Prof Construction Superv	7
Prof Interac in Heal Care	30
Professional Development	82
Project Management	1
Purchasing	13
Purchasing Lab	3
Radio Performance I	7
REAL Small Business	1
Records Management	1
Rescue Scene Management	31
Residential Bldg Codes	1
Routing and Switching I	27
Routing and Switching II	10
Safety and Emissions	1
Salon I	469
Salon II	100
Salon III	36
Salon IV	16
Sanitation & Safety	30
Sanitation & Safety Lab	19
Schematics & Diagrams	6
School-Age Dev & Program	8
Screen Printing I	8
Secure Communications	1
Security Concepts	32
SG 3D Animation	3
SG Level Design	1
SGD Design	24
SGD Design II	2
SGD Programming	26
Small Business Management	2
SMAW (Stick) Pipe	3

Course Description	Statewide Enrollment
SMAW (Stick) Plate	381
SMAW (Stick) Plate/Pipe	45
Social Media	9
Sociology of Disaster	14
Soil Science	4
Soils & Fertilizers	10
Special Finishes	1
Spreadsheet	2
Sprinklers & Auto Alarms	6
State & Local Government	1
Statistical Analysis	1
Statistics I	4
Statistics I Lab	4
Structural Damage I	45
Structural Damage II	1
Sub Abuse Counseling	1
Substance Abuse	47
Substance Abuse Overview	3
Survey of Mathematics	14
Survey of Mathematics Lab	4
Suspension & Steering Lab	47
Suspension & Steering Sys	81
Symbols & Specifications	250
Technical Drafting I	34
Technical Drafting I Lab	34
Technical Drafting II	9
Technical Drafting II Lab	9
Terrorism and Emer.Mgt.	1
Terrorism:Underlying Issu	17
Text Editing Applications	9
Text Entry and Formatting	4
Thermoplastic Welding	2
Trace Evidence	29
Transp Climate Cont Lab	30
Transp Climate Control	28
Transportation Logistics	1
Trichology & Chemistry	6
Typography I	10
Victimology	109

Course Description	Statewide Enrollment
Video Production	168
Visual BASIC Programming	7
Web Design	25
Web Development Tools	4
Web Markup and Scripting	10
Web, Pgm, & Db Foundation	2
Weight Training I	1
Welding Metallurgy	6
Windows Single User	2
Word Processing	13
<b>Grand Total</b>	16775

North Carolina CTE provides numerous ways for students to begin the journey to meet their personal and professional goals. Strong ties to economic and workforce development programs in each region, and statewide, district-wide, and school-based business and industry partnerships, ensure that programs will provide meaningful education and skills training that prepare students both to enter the workforce directly and as lifelong learners who must keep their skills updated through professional development and further education throughout their careers. The opportunity to earn industry credentials and community college credits demonstrates student achievement and provides a foundation upon which students can begin to build their careers.