

## Introduction

Career and Technical Education (CTE) is a key ingredient to meet the needs of Utah's economy. It is a vital element of Utah's goal 66% of adults to have a certificate or degrees by 2020, a goal adopted by the Governor and Legislature. CTE includes a wide variety of for-credit and non-credit courses and programs that prepare students with specific occupational skills. The Utah System of Higher Education (USHE) offers CTE programs in all regions of the state. USHE institutions work closely with business and industry leaders in their respective regions to develop and deliver programs specifically tailored to local workforce development needs.

10,621,377

USHE institutions awarded 340,055  
credits in CTE courses in 2013-14  
(equivalent 10,621,377 membership hrs.)

During the 2013-2014 academic year, CTE comprised over 23% of the total undergraduate courses offered at USHE institutions, and it accounted for over 17% of undergraduate degrees and certificates awarded. This report also includes data on offerings provided by USHE institutions through Utah's Short Term Intensive Training (STIT) and Custom Fit programs where industry-specific courses are taught on contract for individual companies.

## Partnering with industry, streamlining credit, and getting students to workforce more quickly

Beginning with FY12 and continuing through FY13 and FY14, each of Utah's eight regional CTE councils began a rigorous planning initiative to identify potential certificate programs that could be developed or strengthened within each region. Regional CTE leaders consulted closely with leaders in industry and workforce development to inform their respective regional plans and to identify certificate programs to be developed and/or strengthened, focusing on the following objectives:

Certificates awarded increased in 2013-14, despite a 2.1% decrease in overall USHE CTE enrollment.

- Assess current CTE offerings in the region
- Submit a regional plan to the state offices at the USHE, the Utah State Office of Education, and the Utah College of Applied Technology
- Identify certificates and other programs that could be offered in high-demand, high wage occupations and that are important to the region
- Identify how these credentials will stack to additional certificates, associate's degrees, or other programs
- Identify ways these programs, or portions thereof, might be provided for delivery in high schools through concurrent enrollment
- Develop an implementation plan

This initiative has focused on short-term certificates (16-29 credits) as a first step for students seeking a college credential or as a short-term option for older adults desiring to retool for a career change or career advancement. It is expected that students will be more likely to complete a meaningful board-approved

credential by the time of high school graduation or shortly thereafter. High school and college students who complete certificates offered through this initiative will:

- Have an earned post-secondary certificate in a relevant field.
- Be prepared for an entry-level position in a career that is in demand and pays high wages.
- Be on an efficient pathway to a credential requiring one or more years to complete.

70 new certificates were developed as a result of direct collaboration with business and industry throughout the state.

## CTE Credentials

The Utah System of Higher Education institutions offer three primary types of CTE credentials:

- **Associate of Applied Science Degrees** - designed to lead students directly to employment requiring two years of preparation. The Associate of Applied Science (AAS) degree includes a core set of general education preparing students with a solid basis in composition, computation, and human relations. In some cases AAS programs can serve a dual purpose to prepare students for the workforce while serving as a pathway to a bachelor's degree.
- **Certificates of Completion** – awarded for completion of programs that are typically one-year in length and that prepare students for employment. Certificates of Completion also have a general education component.
- **Certificates of Proficiency** - short-term training programs less than one year in length that prepare students for specific employment skills.

## Tuition and Fees

- Career and Technical Education programs are offered at seven of the eight USHE institutions (University of Utah's mission does not include CTE, Salt Lake Community College fills this role in the service region shared by these two institutions).
- Full-time tuition and fee costs during FY14 for the seven institutions that carry a CTE role assignment ranged from \$1610 to \$3093 per semester.
- Tuition and fees at Utah's public institutions of higher education are among the lowest in the nation. It typically takes full-time students one to four semesters to complete a CTE credential, depending on whether a student is working on a certificate or an AAS degree.
- Many of the CTE programs are stackable to four-year programs giving students the option to continue their educational credentialing.

## Employment and Earnings

The Utah System of Higher Education maintains an interactive tool that provides employment and earnings reports by area of study, including CTE, for first-year and fifth-year wages. The median fifth-year wages for certificates less than one year, certificates of at least one year, and associate degrees are \$28,673, \$34,543, and \$42,220, respectively. More information available at: <http://higheredutah.org/datalinks>.

The median 5<sup>th</sup>-year wage for individuals with USHE certificates of at least one year is \$34,543 (24% higher than certificates <1 year)

## CTE in Concurrent Enrollment (delivered to high school students)

In addition to regular CTE courses that are available to high school students on campus and at outreach campuses and centers, approximately 26,879 students took advantage of college courses available through concurrent enrollment in 2013-14. In total, these students earned 187,740 college credits. Fifty-eight percent of these students (15,541) enrolled in at least one CTE course. Secondary students earned 68,385 CTE credit hours, or 36.4% of the total concurrent enrollment credit hours earned.

The accompanying tables show unduplicated headcount in CTE concurrent enrollment system-wide and by institution. Enrollment headcounts in the second table total more than the system-wide 15,541 figure because students take courses from more than one institution.

Concurrent Enrollment Fiscal Year 2013-2014		
	Total	CTE
Total Students (Unduplicated Headcount)	26,879	15,541 (57.8%)
Earned Credit Hours	187,740	68,385 (36.4%)

Headcount in CTE Concurrent Enrollment by Institution for Fiscal Year 2013-2014	
Institution	CTE Concurrent Enrollment (Unduplicated Headcount)
Utah State University	1,073
Southern Utah University	190
Snow College	393
Dixie State University	399
Weber State University	6,398
Utah Valley University	3,467
Salt Lake Comm. College	4,193
Total	16,113*

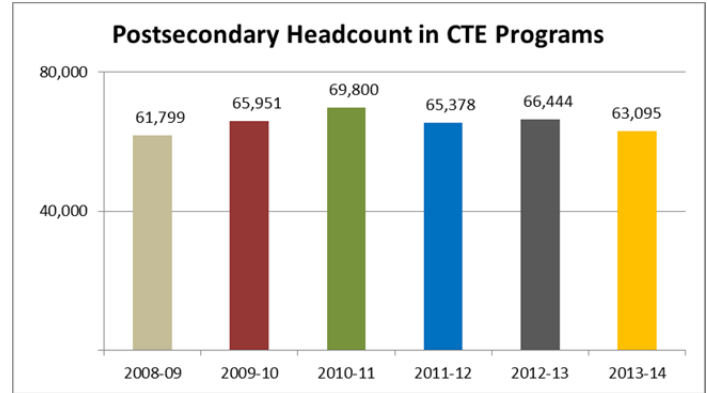
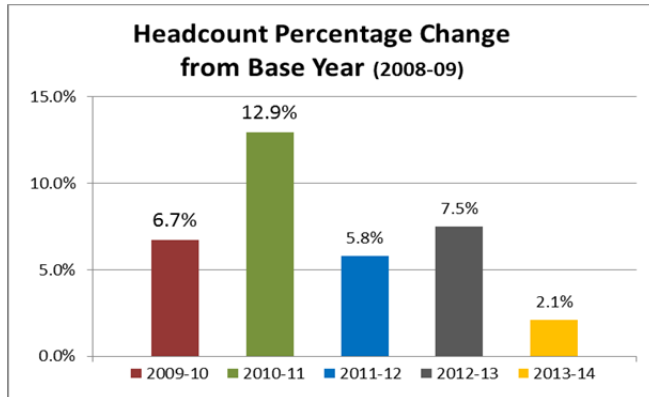
## Headcount, Enrollment, and Completion Data

This report uses the federal Carl Perkins grant definitions (the generally-accepted measurement nationwide) using both credit hours and membership hours in order to create a common comparison of CTE among Utah's public, postsecondary institutions.

While USHE institutions are serving more students in CTE programs, improving economic conditions are contributing to students taking fewer courses and spending more time working. However, even with softening enrollment there was an increase in total CTE credentials awarded - 4,879 credentials in 2013-2014, compared to 4,787 in 2012-2013. It should be noted that there were several changes to CIP codes attributed to CTE programs between 2010-11 and 2012-13. There were also fewer approved Perkins-eligible courses. Additionally, it is noted that there was an increase in CTE students during 2012-2013, yet there was a modest decline in student FTE.

# Headcount

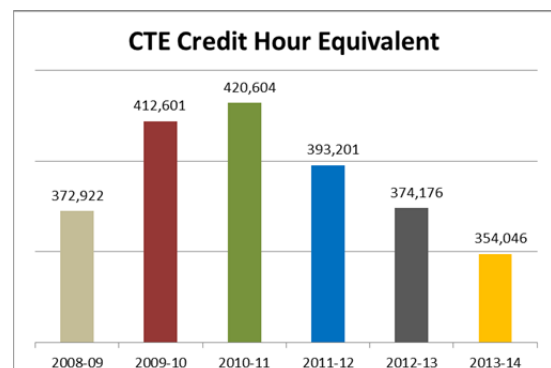
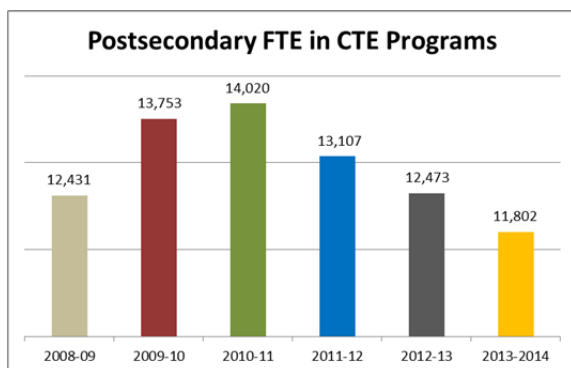
	2008-2009	2009-10	2010-11	2011-12	2012-13	2013-14
CTE Headcount	61,799	65,951	69,800	65,378	66,444	63,095
Change from Base Year (2008-09)	-	4,152	8,001	3,579	4,645	1,296
Percentage Change from Base Year	-	6.7%	12.9%	5.8%	7.5%	2.1%



## Full-Time Equivalent (FTE)

FTE is a measure, based on the total number of hours taught, of how many students could have been served if all students were full-time. One FTE is equal to 30 credit hours (for credit-based instruction) or 900 membership hours (for non-credit) in a given year. For membership and credit hour equivalents, one credit hour equals 30 membership hours.

	2008-09	2009-10	2010-11	2011-12	2012-13	2013-2014
<b>Membership Hour Equivalent</b>						
Non-Credit Membership Hours	808,614	1,242,194	894,841	634,795	473,180	362,013
STIT/Custom Fit Hours	59,548	62,191	73,786	58,335	56,790	57,714
+ Credit Hours * 30	10,319,490	11,073,630	11,649,480	11,102,910	10,695,300	10,201,650
<b>Total Membership Hour Equivalent</b>	<b>11,187,652</b>	<b>12,378,015</b>	<b>12,618,107</b>	<b>11,796,040</b>	<b>11,225,270</b>	<b>10,621,377</b>
÷ Membership Hours per FTE	900	900	900	900	900	900
<b>FTE (Total Membership Hours/900)</b>	<b>12,431</b>	<b>13,753</b>	<b>14,020</b>	<b>13,107</b>	<b>12,473</b>	<b>11,802</b>
<b>Credit Hour Equivalent</b>						
Non-Credit Membership Hours / 30	26,954	41,406	29,828	21,160	15,773	12,067
STIT/Custom Fit Hours / 30	1,985	2,073	2,460	1,944	1,893	1,924
+ Credit Hours	343,983	369,121	388,316	370,097	356,510	340,055
<b>Total Credit Hour Equivalent</b>	<b>372,922</b>	<b>412,601</b>	<b>420,604</b>	<b>393,201</b>	<b>374,176</b>	<b>354,046</b>
÷ Credit Hours per FTE	30	30	30	30	30	30
<b>FTE (Total Credit Hours/30)</b>	<b>12,431</b>	<b>13,753</b>	<b>14,020</b>	<b>13,107</b>	<b>12,473</b>	<b>11,802</b>



# Completions

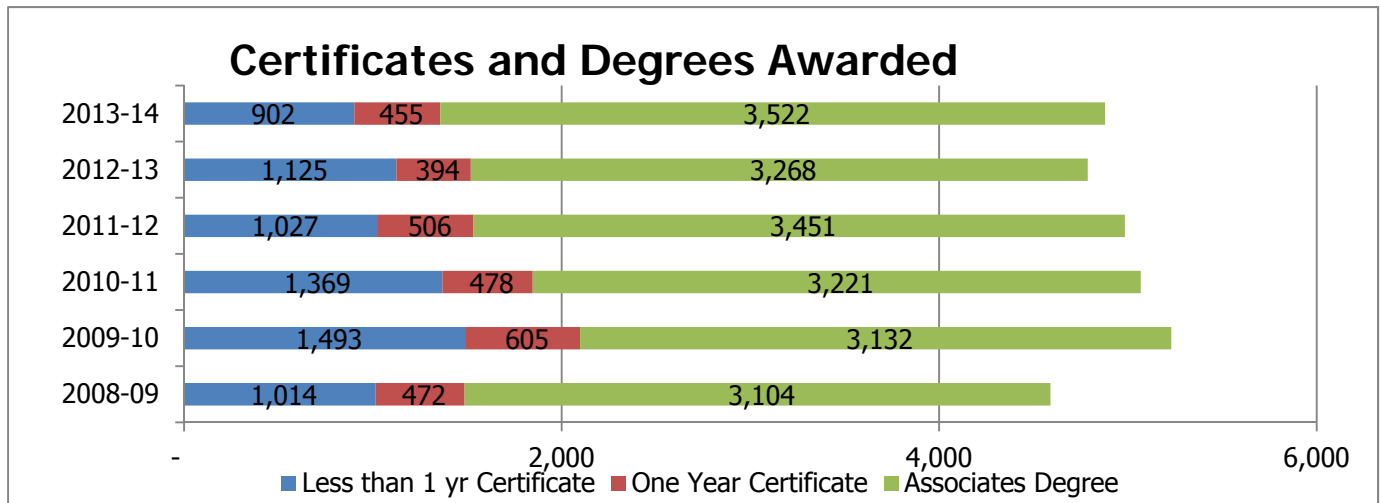
Top 5 Programs for Completions - IPEDS Completions Survey\*

2013-14

	Less than 1 year certificates	1-2 year certificates	Associates & 2+ year Certificates	Total	
HEALTH PROFESSIONS AND RELATED PROGRAMS	544	171	1,372	<b>2,087</b>	43%
BUSINESS, MANAGEMENT, MARKETING	27	21	531	<b>579</b>	12%
SECURITY, LAW ENFORCEMENT, FIREFIGHTING	20	38	267	<b>325</b>	7%
COMPUTER AND INFORMATION SCIENCES	118	14	150	<b>282</b>	6%
ENGINEERING TECHNOLOGIES	103	24	144	<b>271</b>	6%

2012-13

	Less than 1 year certificates	1-2 year certificates	Associates & 2+ year Certificates	Total	
HEALTH PROFESSIONS AND RELATED PROGRAMS	759	194	1,306	<b>2,259</b>	50%
BUSINESS, MANAGEMENT, MARKETING	24	40	480	<b>544</b>	12%
ENGINEERING TECHNOLOGIES	164	16	132	<b>312</b>	7%
SECURITY, LAW ENFORCEMENT, FIREFIGHTING		18	229	<b>247</b>	5%
COMPUTER AND INFORMATION SCIENCES	64	8	155	<b>227</b>	5%



\*USHE completions data is based on the Perkins definition for CTE programs

## Definitions and Formulas

### **CTE - Career and Technical Education (Vocational)**

CTE programs involve training for what are generally considered technical, high skill jobs such as automotive maintenance, welding, construction, and entry-level healthcare positions.

### **Credit Hours**

A unit used to measure the amount of schoolwork a student has enrolled in or completed as defined by regional accrediting bodies and the U.S. Department of Education.

### **Membership Hours**

Also called 'Clock Hours', assumed to be the is the actual number of hours attended at an institution in a CTE or vocational program.

### **FTE - Full Time Equivalent**

This is a measurement of the total number of hours taught at an institution divided by the number of hours considered to be full-time for a student. An FTE student is one undergraduate student enrolled for 15 credit hours per semester. A part-time student may account for only .5 FTE while a student with a heavy course load may account for 1.25 FTE during a given academic year.

- 30 credit Hours = 1 FTE for credit programs
- 900 membership Hours = 1 FTE for non-credit programs

### **Unduplicated Headcount**

The total number of individual students enrolled at an institution, regardless of instruction time. Unduplicated Headcount is only counted once, even though the student may fall into several enrollment categories.

### **Secondary/Postsecondary**

Secondary Education refers to high school education. Postsecondary is education in a formal program beyond high school.