
Staff Update

Higher Education Certificate Programs

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Legislative Program Review
and Investigations Committee

Connecticut General Assembly

2013-2014 Committee Members

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Higher Education Certificate Programs

Background

In May 2014, the Legislative Program Review and Investigations Committee (PRI) voted to examine the effectiveness of workforce development sub-baccalaureate certificate programs to determine if the type of certificate holders Connecticut is producing is aligned with employer demand. The study is to develop a detailed description of certificates awarded by the Board of Regents for Higher Education (BOR), (which for this project is effectively the 12 public community colleges and Charter Oak State College), private nonprofit colleges and universities, and 57 private occupational schools, which tend to be for-profit.

A prominent workforce study has indicated that in Connecticut 65 percent of all jobs will require some type of postsecondary education beyond high school by 2018. The most recent figures indicate that Connecticut's postsecondary education attainment level is about 56 percent. This suggests a fairly significant gap.

Update focus. The purpose of this committee staff update document is to: provide information on the number of certificates awarded in the state based on available data, and, to the extent possible, how that compares to other states; explain the role of government in overseeing and regulating certificate providers; identify the state agencies that have a role in certificate production and assessing workforce demands; and explain the next steps in the study.

Main Points

What are postsecondary sub-baccalaureate educational certificates? Definitions vary but these typically are described as shorter-term postsecondary credentials that focus on job-specific skills or knowledge. They are distinct from other credentials, such as professional certifications or occupational licenses. Certificate program types, length, and purposes are fairly diverse. Certificate programs can be either for credit or noncredit.

What are the benefits of these certificates? Educational certificates can be very beneficial to students and employers. Certificates are often viewed as a recognized credential that is responsive to current workforce needs that helps employers. For students, the benefits are a savings in time and money, compared to a degree, increased earnings potential, and improved job stability. Individual outcomes, of course, can vary considerably.

How does Connecticut compare to the rest of the nation? Although Connecticut appears to rank low among the states (11th lowest) when comparing the percentage of the population that hold educational certificates as the highest level of educational achievement, it has a high degree of overall postsecondary educational attainment (7th highest). However, a definitive conclusion cannot be made because there are serious data deficiencies.

What are the principal federal oversight mechanisms? There are three main elements: 1) the criteria set by the U.S. Department of Education for an institution to become eligible to participate in the Federal Student Aid (FSA) program; 2) the FSA requirement that eligible institutions report certain demographic and student debt data to a federal database; and 3) the mandate that schools participating in the FSA program to disclose student cost and completion rates to students and potential students.

Which state agencies are responsible for providing oversight and workforce data? The Board of Regents for Higher Education (BOR) oversees Connecticut's 12 community colleges and is the primary place that sub-baccalaureate certificate programs are offered in the public arena. The Office of Higher Education (OHE) is responsible for licensing schools and colleges, including the 57 private occupational schools that award the majority of certificates. The Department of Labor, the state's lead workforce agency, produces information on occupational demand, while the Office of Workforce Competitiveness serves as the governor's principal workforce development policy advisor.

Next Steps

1. Staff will be analyzing data from BOR, from OHE, and the nonprofit college association, to provide a more comprehensive profile of certificates programs and students during the next phase of the study.
2. Department of Labor and BOR personnel are combining community college student and employment data to allow for an examination of certificate graduates outcomes in terms of placement rates, employment relevancy, and earnings.
3. Department of Labor projections for both certificate completers and occupations that are related to certificates will be analyzed in terms of the alignment between graduates and available jobs.

Acronyms

BOR	Connecticut State Colleges and Universities - Board of Regents for Higher Education
CETC	Connecticut Employment and Training Commission
DOL	Connecticut Department of Labor
ED	United States Department of Education
FSA	Federal Student Aid Program
HEA	Higher Education Act
IPEDS	Integrated Postsecondary Education Data System
NCES	National Center for Education Statistics
NCHEMS	National Center for Higher Education Management Systems
OHE	Office of Higher Education
O*NET	Occupational Information Network
OWC	Office of Workforce Competitiveness
P20 WIN	Preschool through 20 and Workforce Information Network
PPA	Program Participation Agreement
SOC	Standard Occupational Classification

Higher Education Certificate Programs

A prominent workforce study has indicated that in Connecticut 65 percent of all jobs will require some type of postsecondary education beyond high school by 2018.¹ The most recent figures indicate Connecticut's postsecondary education attainment level is about 56 percent.² This suggests a fairly significant gap.

Postsecondary education does not necessarily mean going to a four-year institution or getting a bachelor's degree. Nationally, most undergraduates do not earn a bachelor's degree. There were more sub-baccalaureate educational certificates (1.03 million)³ and associate degrees (940,000) awarded combined (1.97 million) than bachelor's degrees (1.7 million) in 2010-11.⁴ Educational certificates were the second most frequently awarded postsecondary credential. Their growth has significantly outpaced that of bachelor's degrees.⁵

In May 2014, the Legislative Program Review and Investigations (PRI) Committee formally approved a study to examine the effectiveness of certain sub-baccalaureate certificates in meeting employer demand. Specifically, the study is to develop a detailed description of certificate programs awarded by the Board of Regents for Higher Education (BOR), (which for this study, concerns only the state's 12 community colleges and Charter Oak State College),⁶ private nonprofit colleges and universities, and private occupational schools, which tend to be for-profit institutions. (A list of the institutions included in this study can be found in Appendix A.)

The study will also analyze whether the supply of certificate holders is aligned with job demand. Finally, the study is to compare Connecticut's certificate completion rate to that of other states.

Update focus. The purpose of this committee staff update document is to describe:

¹ Anthony Carnevale, Nicole Smith, and Jeff Strohl. 2010. *Help Wanted: Projections of Jobs and Education Requirements Through 2018*. Washington, D.C.: Georgetown University Center on Education and the Workforce.

² Ibid.

³ This study focus is on postsecondary sub-baccalaureate educational certificates. For brevity's sake, they may be referred to as just "certificates" throughout the document.

⁴ National Center for Education Statistics (NCES) 2012. *Digest of Education Statistics*. Washington, D.C.: U.S. Department of Education, Tables 310 and 311. Note this does not include the certificates awarded at schools that do not participate in federal aid programs ("Title IV").

⁵ NCES, 2010, Table 292 and NCES 2012 Table 310.

⁶ While the scope of study includes an examination of BOR's state universities, a search of sub-baccalaureate certificates for those institutions in a U.S. Department of Education database (Integrated Postsecondary Education Data System) yielded no results and a search on BOR's website located only one sub-baccalaureate program (in American Studies at Central Connecticut State University). That certificate is primarily for international students who come to the United States for an introductory program in American studies. Consequently, the state universities were excluded from the study.

- how certificates have been defined and discuss their value to certificate completers as well as employers;
- the range of certificate providers and identify the providers included in this study;
- information on the number of certificates awarded in the state based on available data and, to the extent possible, how that compares to other states;
- the role of government in overseeing and regulating certificate providers;
- the state agencies that have a role in certificate production, oversight, and workforce demand assessment; and
- the next steps in the study.

Study Methods to Date

A variety of sources and methods are being used to conduct this study. For this update:

- committee staff interviewed higher education researchers and policy analysts from recognized institutes and universities;
- staff also reviewed available and pertinent literature on the topic;
- additional interviews have been conducted with personnel representing the larger private occupational schools located within Connecticut and with the administrative staff with the Board of Regents for Higher Education (BOR), the Office of Higher Education (OHE), and Department of Labor (DOL);
- a number of federal data sources have been utilized, including the U.S. Department of Education's Integrated Postsecondary Education Data System (IPEDS), Digest of Education Statistics, and the Gainful Employment Downloadable Spreadsheet; and
- some preliminary data from OHE and BOR has informed parts of this update where noted.

Educational Certificates: Definition, Benefits, and Prevalence

This chapter provides an overview of how educational certificates are defined, describes the benefits of obtaining a certificate, and examines how Connecticut compares to other states in terms of certificate attainment. The key points include:

- definitions of sub-baccalaureate educational certificates vary but the certificates are typically described as shorter-term postsecondary credentials that focus on job-specific skills or knowledge;
- both certificate holders and their employers benefit from educational certificates; and
- although Connecticut appears to rank low among the states (11th lowest) when comparing the percentage of the population that hold certificates as the highest level of educational attainment, the state has a high degree of overall postsecondary educational attainment (7th highest), however a definitive conclusions about Connecticut's position cannot be made because data are lacking in key areas.

What are Postsecondary Sub-baccalaureate Educational Certificates?

There are various definitions of what constitutes a postsecondary sub-baccalaureate educational certificate. Broadly speaking, a sub-baccalaureate certificate could be defined as any award below the bachelor's degree level that was granted based on a formal program of study. Program review staff consulted academic and government literature and conducted interviews with national experts, BOR staff, and staff at certain private occupational schools to determine how certificates are defined, developed, and marketed. Certificate program definitions, types, length, and purposes are fairly diverse, though they can be distinguished from other types of credentials.

Different definitions. One comprehensive study defines a certificate as “recognition of a course of study based on a specific field, usually associated with a limited set of occupations.”¹ However, the federal Department of Education, which tracks the awarding of educational certificates, defines them as “formal awards conferred by the institution as the result of completion of an academic or occupational program of study.” The agency is working to refine its definition and data collection practices because of inconsistencies in how data are reported across postsecondary institutions.²

¹ Carnevale, A. P., Rose, S. J., & Hanson, A. R. 2012. *Certificates: Gateway to Gainful Employment and College Degrees*, Washington, DC: Georgetown University Center on Education and the Workforce

² Sykes, A. 2012. *Defining and Reporting Sub-baccalaureate Certificates in IPEDS* (NPEC 2012-835). U.S. Department of Education. Washington, DC: National Postsecondary Education Cooperative.

Neither the board of regents nor the private occupational schools staff interviewed by PRI staff had an official written definition or defined purpose of educational certificates.³ (The board of regents has written procedures that guide the certificate approval process but do not actually define a certificate or its purpose). Generally, in interviews with staff at those institutions, certificate programs were described as having a defined group or sequence of courses that focus on an area of specialized knowledge and have a career or occupational focus. With certificates, there is commonly an emphasis on gaining specific skills and knowledge that can be readily transferred to the workforce.

Credit status. Certificate programs' courses can be offered for credit or noncredit, depending on the institution. For-profit institutions do not offer for-credit programs. However, one for-profit school told PRI staff that in the case of student transfers, the receiving schools determine if the courses are credit worthy.

Various reasons have been offered as to why a college or university might offer a certificate program for credit or not. Advantages of for-credit programs include the ability of the student to obtain federal financial aid, have a pathway to an associate's or bachelor's degree, and potentially transfer course credits to other institutions. Disadvantages of for-credit programs are that they can take more time to develop than noncredit programs, must meet certain accreditation requirements, and often require the student to take general education courses that may not be directly related to the occupation of interest.

Length. Certificate programs' length differs. A student enrolled in a full-time certificate program can take a few months to complete the program or four years depending on the certificate. The majority of certificate programs offered in Connecticut take two years or less to complete for students enrolled full-time.

Purposes. Knowing the reason why a prospective student would enroll in a certificate program, can help to inform the definition and purpose of the program. Studies of certificate programs and staff interviews with those in the postsecondary education field suggest that the reasons individuals enroll in certificate programs can vary tremendously. The programs can serve as occupational training for high school graduates trying to enter a particular field or industry, or for a worker looking to change fields. In addition, certificates can be used to prepare for an industry certification, state licensure, or as a way to begin a path to a college degree. Further, experienced workers with college degrees may also use certificate programs to learn a new skill.⁴

U.S. Census Bureau definition. The U.S. Census Bureau has been part of a federal interagency work group that recently developed a "working definition" of educational certificates. The definition is used by the bureau to guide its research about the prevalence of certificate holders throughout the country. Until recently, there has not been much federal interest in collecting specific data on this type of educational award. However, there is an

³ Charter Oak State College does provides a description in its course catalogue of certificates programs as "both credit and non-credit, (these programs) are designed for adults who are interested in learning a specific set of skills and gaining knowledge in a certain area, but who may not want to earn, or have already earned, a degree."

⁴ Carnevale, A. P., Rose, S. J., & Hanson, A. R. 2012

increasing recognition that certificates play an important role assisting job seekers in obtaining employment and in helping other individuals advance in their careers.

Unlike well-recognized traditional academic degrees, such as associate's, bachelor's, and advanced degrees, certificates fall into the category of "alternative educational credentials," along with *professional certifications* and *licenses*. Although there is some variation and often confusion over definitions, there are acknowledged differences between these three credentials. The U.S. Census Bureau uses the following three definitions of alternative educational credentials:

- ***Educational certificate:*** A credential awarded by a training provider or educational institution based on completion of all requirements for a program of study, including coursework and test or other performance evaluations. Certificates are typically awarded for life (like a degree). Certificates of attendance or participation in a short-term training (e.g., one day) are not in the definitional scope for educational certificates;
- ***Professional certification:*** A credential awarded by a certification body based on an individual demonstrating through an examination process that he or she has acquired the designated knowledge, skills, and abilities to perform a specific job. The examination can be written, oral, or performance-based. Certification is a time-limited credential that is renewed through a recertification process; and
- ***License:*** A credential awarded by a licensing agency (typically state government) based on pre-determined criteria. The criteria may include some combination of degree attainment, certifications, certificates, assessment, apprenticeship programs, or work experience. Licenses are time-limited and must be renewed periodically.

Postsecondary institutions included in this study. Educational certificates are offered by many types of organizations, including community colleges, technical and business schools, trade unions, businesses, professional organizations, and government agencies. However, most certificates are awarded by for-profit private occupational schools (also referred to as "career" or "technical" colleges), community colleges, and private nonprofit colleges. The focus of this study is on for-credit and noncredit, sub-baccalaureate certificate programs offered by the Board of Regents for Higher Education, private occupational schools, and private nonprofit colleges and universities.⁵ Combined, these institutions account for most of the certificates awarded in Connecticut based on the best available information.

The methodological approach used in the next phase of this study will be to analyze all programs that these institutions label as educational certificates. Included will be certificate

⁵ Due to concerns with data quality and time constraints, other certificate awarding institutions such as hospital-based schools, schools of hairdressing/cosmetology, for-profit higher education institutions, certain religious-based institutions, and technical high schools have been excluded from the study.

programs that may ultimately lead to a professional certification or a license but the study will not include trades, such as plumbing and electrical. Typically the trade occupations require some form of longer-term apprenticeship, which is a clearly different training path than that of most certificates.

What are the Benefits of Postsecondary Sub-Baccalaureate Certificates?

Educational certificates can be very beneficial to both students and employers. For employers, certificates are often viewed as a recognized credential, and for students, the benefits are a savings in time and money, increased earnings potential, and job stability. Individual outcomes, of course, can vary considerably.

Recognizable credential. For employers, educational certificate programs typically signify that a student has reached a certain standard of knowledge about a given vocational or professional subject. It can be viewed as a recognized credential that can indicate to employers a job applicant's type of training and competency. In most circumstances, having an educational certificate gives job seekers an advantage over only having a high school diploma when starting an occupation. In addition, certain educational certificates qualify graduates to sit for industry certifications, which further strengthen the recognition and portability of the credential. Finally, educational certificate programs, especially noncredit ones, can be designed and implemented in a short period of time, which may make them more responsive to employers' shifting workplace training demands and changing technology compared to traditional credentials.

Less time, more flexible, reduced requirements. An advantage for students seeking a certificate is that it can typically be obtained more quickly than certain other educational credentials like an associate's degree. Certificate programs are usually designed to take under two years to complete. For example, an associate's degree at a Connecticut community college requires a student to earn 60 credits (usually 20 courses) over two years as a full-time student. Most community college for-credit certificates, on the other hand, require less than 59 credits and can be completed on a full-time basis in less than 24 months; many within 12 months.

Certificate programs, especially noncredit offerings, are often viewed as being more flexible. They can be offered at different times of the year as the programs do not have to adhere to the typical academic calendar year. Further, noncredit programs and most of the certificate programs in private occupational schools do not have any general education requirements, such as college-level math and English courses. These requirements can be an entry barrier to many students.

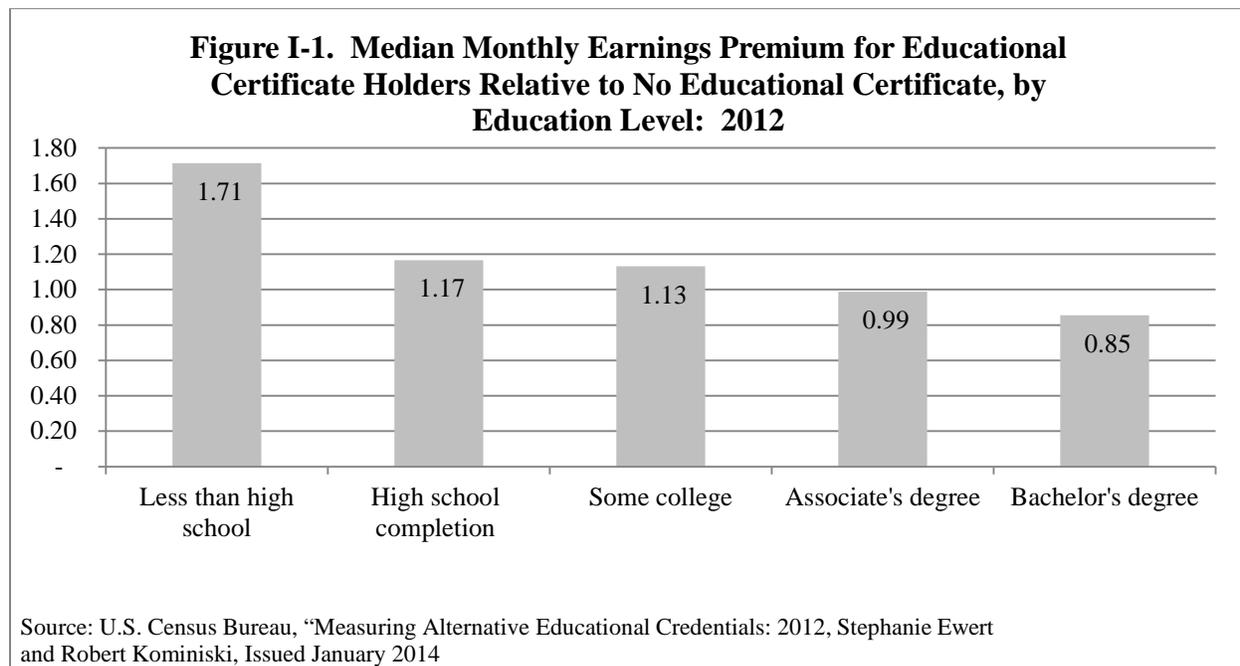
Less costly. Less time and fewer course requirements usually means lower costs to the student, compared to obtaining a college degree. Prices, though, can vary substantially depending on the institution that offers the certificate program, the type of certificate being sought, and its credit status. Private for-profit schools and nonprofit colleges tend to charge more than public community colleges, and even on the public side, for-credit programs are often more costly than noncredit programs.

Some questions arise as to why potential students would select high cost certificate programs over relatively lower cost community college programs. It has been suggested to

program review staff (and supported in the literature) that, in some cases, for-profits can be more agile in responding to market needs, may provide better student support and retention systems, and can be more flexible in scheduling classes at times that meet students' needs. In addition, for-profit institutions tend to rely more heavily on advertising and are adept at arranging federal and private loans for their students.⁶ Therefore, these institutions' offerings may be more familiar to potential students and appear more accommodating in helping students arrange financing.

Concerns about some certificate programs leaving many students with high student debt levels have prompted the federal government to develop "Gainful Employment" requirements. These mandate that certain schools report program completion rates as well as wage and employment outcomes. More detail is provided in Chapter II.

Greater earnings potential. Educational certificates can provide a path to greater earnings, especially for those with limited educational attainment. Figure I-1 shows the ratio of earnings of those with an educational certificate compared to earnings of those without an educational certificate.



The earnings of those with an educational certificate were significantly higher compared to those at the same educational level below an associate's degree. For example, individuals who had less than a high school degree earned 71 percent more with an educational certificate compared to other individuals with less than high school education and no certificate.

People who completed high school experienced a 17 percent earnings premium with a certificate compared to those individuals with only a high school degree. On the other end of the spectrum, those with a bachelor's degree and an educational certificate earned less (85 cents for

⁶ See for example, Carnevale, A. P., Rose, S. J., & Hanson, A. R. 2012

every dollar) than those with just a bachelor’s degree. One possible explanation for this decline in wages could be that these workers may be in the process of changing occupations.

As a consequence of this earnings premium for those with limited educational attainment, there is a societal benefit as well. Those with an educational certificate tend to pay about 17 percent more, on average, in federal, state, and local taxes than those with a high school degree.⁷

Similar to other educational credentials, not all certificates have the same financial return. Different certificates have different salary expectations. Table I-1 shows the average salary of jobs available for the selected certificate areas. Technology and some health-related certificates tend to be associated with better paying occupations.

<i>Certificate Area</i>	<i>Average Salary (2013)</i>
Computer Technology A+ certification	\$73,885
AutoCAD	\$57,324
Medical Coding and Billing	\$50,475
Massage Therapy	\$45,726
Machinist/Precision Machining	\$44,430
Dental Assistant	\$41,172
Patient Care Technician	\$35,000
Home Health Aide	\$24,606
Institutional Food Worker	\$24,472
Source: BOR, DOL	

Employment stability. Greater educational attainment is linked to employment stability. As shown in Table I-2, individuals with some college but no degree (a category that includes certificate holders) are less likely to be unemployed than those with only a high school diploma or less.

<i>Education Attained</i>	<i>Unemployment Rate (Percent)</i>
Doctoral degree	2.2
Professional degree	2.3
Master's degree	3.4
Bachelor's degree	4.0
Associate's degree	5.4
<i>Some college, no degree</i>	7.0
High school diploma	7.5
Less than a high school diploma	11.0
Note: Data are for persons age 25 and over. Earnings are for full-time wage and salary workers. Source: Current Population Survey, U.S. Department of Labor, U.S. Bureau of Labor Statistics	

⁷ Baum, Sandy, Jennifer Ma, and Kathleen Payea. 2013. *Education Pays 2013: The Benefits of Higher Education for Individuals and Society. Trends in Higher Education*. New York, NY: College Board.

Other potential benefits unknown. Several studies have shown that higher education accrues various other benefits to the individual and society as a whole. Bachelor degree graduates, for example, are less likely to need social services, experience greater job satisfaction, and tend to have healthier lifestyles compared to those with a high school education or less. Although some of these benefits may also attach to certificate awardees, it is unknown whether and to what extent these benefits vary with other levels of higher education.

What are the Limitations to Obtaining Information about Certificate Awards?

All postsecondary educational institutions authorized to operate in Connecticut have the potential to award certificates. The best source of data to begin to understand the number of certificate completions (also known as awards) is maintained by the federal National Center for Education Statistic's Integrated Postsecondary Education Data System (IPEDS). The completion of all IPEDS survey information is mandatory for institutions that participate in any federal student financial aid program authorized by Title IV of the Higher Education Act of 1965 (such as Pell grants and federal student loans). (See Chapter II for further explanation of federal financial aid programs.) However, IPEDS data are limited because a significant number of certificate programs do not report data as they do not receive federal student aid funding. As described below, the most significant omissions from the data set are noncredit certificates offered by community colleges and the certificates awarded by the majority of private occupational schools.

Missing schools. Table I-3 compares the number of schools, colleges, and universities that are authorized to operate in Connecticut to the number that report to IPEDS and to the number that are examined in this study. Some data reporting deficiencies can be noted.

For example, in Connecticut only 25 of the 80 (31 percent) private occupational schools (including branch locations) report their certificate completion data to IPEDS because they participate in federal student aid programs.⁸ Private occupational schools award a significant proportion of certificates (as noted below) in Connecticut and this study will attempt to obtain more data from all the private occupational schools.

Similarly, 34 nonprofit colleges and universities are authorized to operate in Connecticut. Twenty-three are domiciled in the state, of which 16 are included in this study.⁹ Eleven out-of-state nonprofit colleges and universities are licensed to operate in the state and report data to IPEDS but do not track degree or certificate completions that they award by state. It should be noted that these out-of-state institutions may not necessarily (and most likely do not) offer any certificate programs.

⁸ Twenty-two private occupational schools are the actual number of schools that report to IPEDS but because OHE and IPEDS count the schools' branches differently the numbers do not match.

⁹ Six of the nonprofit colleges domiciled in the state, and excluded from the study, offer religious-based instruction. The other exclusion is an institute that only offers graduate degrees.

Table I-3. Institutions that are Licensed in CT, in IPEDS, and in Study with Sub-baccalaureate Certificate Count						
<i>School Type</i>	<i>Number of Schools Authorized</i>	<i>Number In IPEDS</i>	<i>Number in Study</i>	<i>Total Sub-Baccalaureate Certificates Awards Reported to IPEDS - 2013</i>	<i>Preliminary Estimate of Total Number of Certificates Awarded (including those <u>not</u> in IPEDS)</i>	<i>Estimated % of Awards Captured by IPEDS</i>
Community Colleges and Charter Oak	13	13	13	2,091	5,225+	< 40%
Nonprofit Colleges and Universities	34	34	16	304	304	100%
Private Occupational Schools (plus Branches) ¹	80	25	80	7,063	15,853 ²	45%
Sub-Total	127	72	109	9,458	21,382+	< 44%
Hairdressing/Cosmetology ³	96	13	0	993	993+	< 100%
Other	20	16	0	583	583+	< 100%
Total ⁴	243	101	109	11,034	22,913+	< 48%

¹OHE reports that there are 25 private occupational schools and branches that are Title IV eligible and, therefore, report to IPEDS. The manner in which institutions report to IPEDS (total 22) is different than how they report to OHE (total 25). One school, for example, has multiple branches that report as one school to IPEDS.

²Data for 2011-2012 used for comparative purposes. The 2012-2013 data is forthcoming.

³Excluded from study due to concerns with data collection and quality.

⁴Excludes technical high schools that report to IPEDS.

+ represents that additional certificates are known to exist in this category but have not been quantified.

Source: NCES IPEDS, OHE

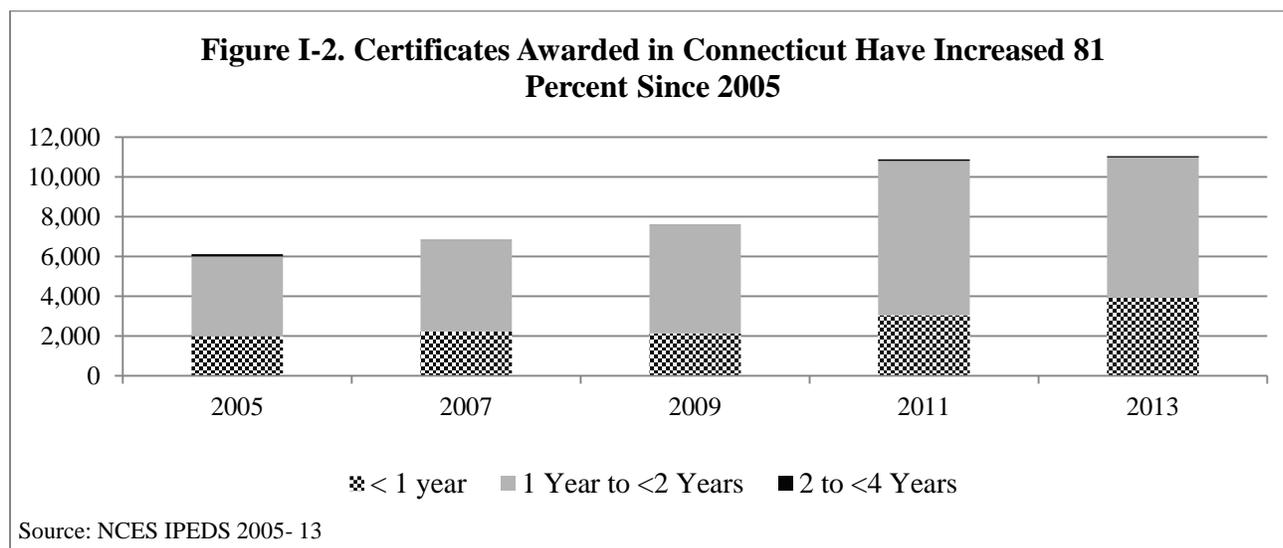
Missing data. The table also gives a preliminary indication of the quantity of certificate completion data that are missing from IPEDS. Program review staff have begun to analyze information regarding certificate completions for students attending private occupational schools. IPEDS reported 7,063 completions for the 25 schools that report data, compared to the 15,853 completions that have been reported to the state’s Office of Higher Education from all the private occupational schools. This is a considerable difference.

In addition, none of the noncredit certificates awarded by the community colleges are reported to IPEDS because these certificate programs do not meet federal student aid requirements. Program review staff have obtained a partial count of the community college noncredit certificate completions for 2013 from BOR. When added to the IPEDS (for-credit) number the total certificate completions jump from about 2,000 to over 5,000.¹⁰ Thus, for the postsecondary institutions in this study, at least 52 percent of the certificates awarded in Connecticut are not reported to IPEDS.

Aside from the data problems cited above, state-to-state comparisons using IPEDS data are questionable because some public certificate programs that are noncredit in one state (and not counted in IPEDS) may be for-credit in another (and counted in IPEDS).

Only data source for comparisons. Although the data are incomplete, IPEDS is still the most comprehensive source by which to compare certificate completions among states. IPEDS data has been used recently in an interim report being used to develop a postsecondary education strategic master plan for Connecticut.¹¹ At best, the IPEDS data below regarding completions may be regarded as a minimum number of sub-baccalaureate certificates that have been awarded in Connecticut.

What Is Known About Connecticut’s Certificate Completion Rate?



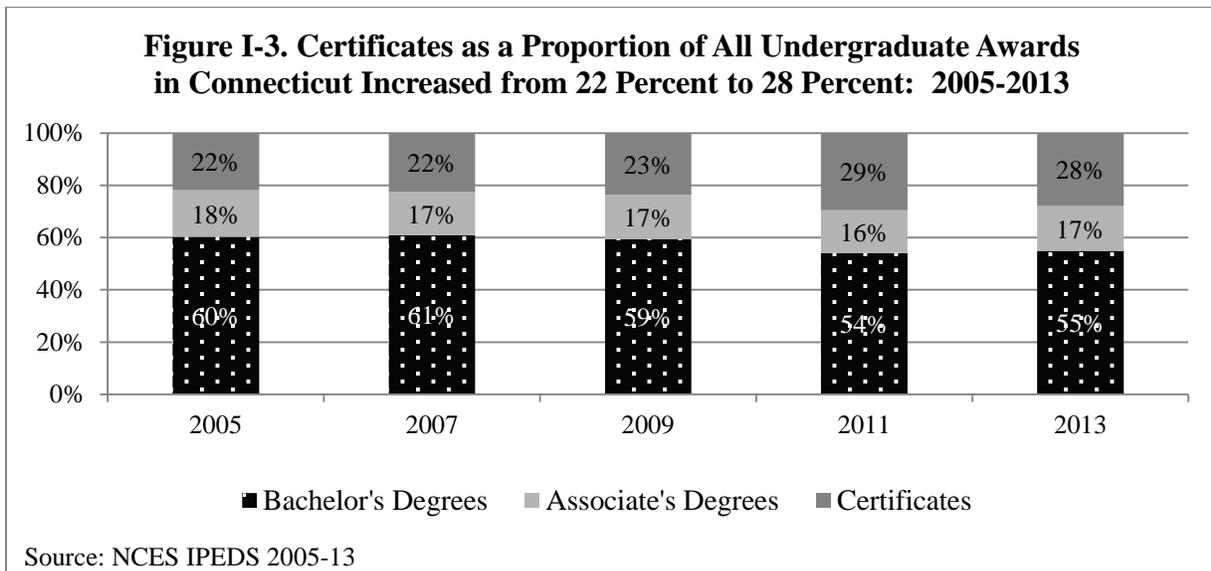
Certificate awards have increased. Figure I-2 shows the number of certificates awarded between 2005 and 2013 divided into three categories based on the length of the program: less than one academic year; at least one but less than two academic years; and at least

¹⁰ BOR’s administrative systems do not provide a reliable count of noncredit certificates. The numbers included here are verifiable but undercount the true number. See Chapter II for further explanation.

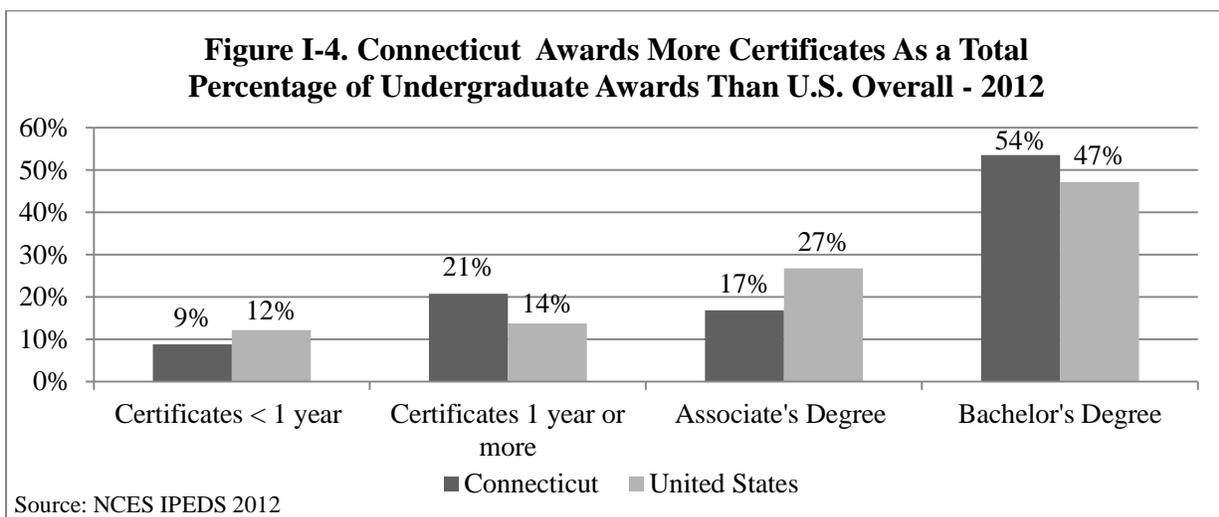
¹¹ National Center for Higher Education Management Systems (NCHEMS), *A Strategic Master Plan for Connecticut Postsecondary Education*, Interim Report, submitted to Planning Commission for Higher Education, January 21, 2014. Note – PRI staff developed certificate completion numbers differ from NCHEMS because NCHEMS only included degree-granting institutions.

two but less than four academic years. It shows that the total number of certificates awarded has increased 81 percent and the majority of awards (64 percent in 2013) are in the mid-term category.

The total number of postsecondary undergraduate awards (bachelors, associates, and certificates) has increased 41 percent since 2005. As shown in Figure I-3, however, the proportion of certificates awarded has increased at a faster rate than other undergraduate awards, as the relative percentage of associate's and bachelor's degrees has declined. Certificates represent 28 percent of all undergraduate awards in 2013; associate's degrees were 17 percent and bachelor's, 55 percent.



Connecticut confers more certificates as a percentage of all undergraduate awards compared to the U.S. overall, as shown in Figure I-4. Connecticut produces more certificates that are earned in one year or more compared to the proportion in the nation and fewer certificates that are earned in less than one year.



Almost all of the public institutions that award sub-baccalaureate certificates, both nationally and in Connecticut, are community colleges. Nationally, community colleges award the most certificates but in Connecticut most certificates are awarded by for-profit private occupational schools. The nonprofit colleges award less than 5 percent of all certificates both nationally and in Connecticut.¹²

There are also regional differences. For-profit institutions tend to be the main provider of certificates in certain parts of the U.S. Tables I-4 and I-5 show, respectively, the states where for-profit institutions award the largest share of certificates and where public community colleges award the highest share of certificates. Most (seven of 10) of the states where for-profit providers predominate, including Connecticut, are located in the Northeast. Most (six of 10) of the states where community colleges award more certificates are located in the southern part of the U.S.

Table I-4. For-Profit Institutions Award a Larger Share of Certificates in the Northeastern U.S.		Table I-5. Public Community Colleges Award a Larger Share of Certificates in the Southern U.S.	
<i>State</i>	<i>For-Profits Share of Certificate Awards</i>	<i>State</i>	<i>Public Community College Share of Certificate Awards</i>
New Jersey	87.0%	Wisconsin	84.2%
Nevada	86.8%	Arkansas	82.5%
Rhode Island	82.4%	Kentucky	82.3%
Connecticut	75.3%	North Carolina	81.9%
Massachusetts	67.9%	Georgia	78.7%
Maryland	67.7%	South Dakota	78.5%
Missouri	66.4%	South Carolina	77.4%
New York	65.9%	Minnesota	76.3%
Pennsylvania	65.5%	Louisiana	73.9%
Texas	65.2%	Washington	72.3%

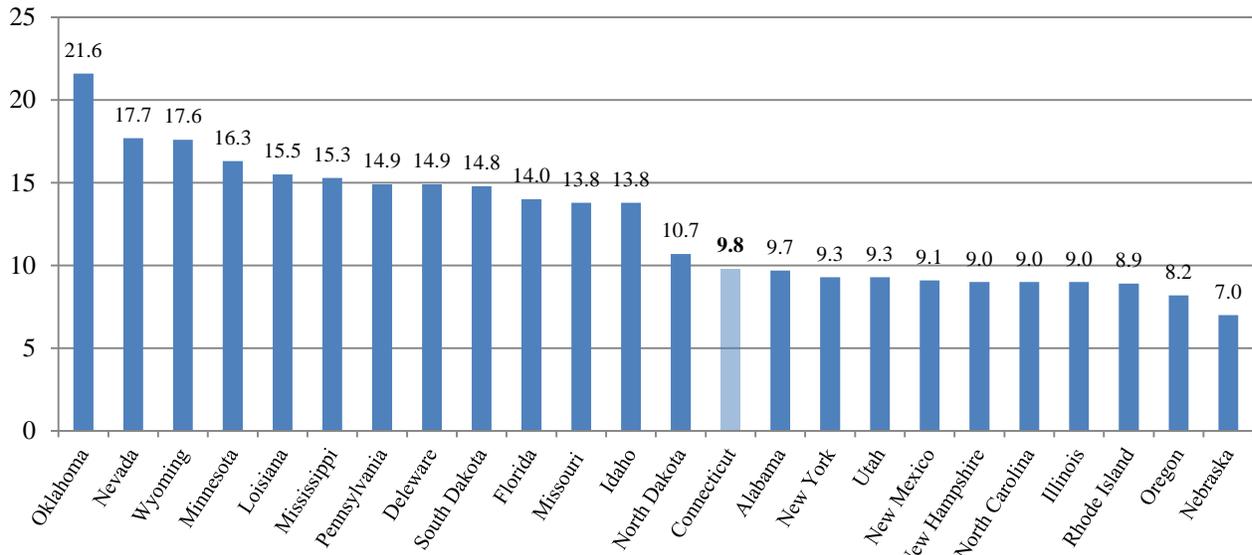
Source: Carnevale, A. P., Rose, S. J., & Hanson, A. R. 2012 *Certificates: Gateway to Gainful Employment and College Degrees*, Washington, DC: Georgetown University Center on Education and the Workforce. Based on IPEDS 2010 data.

What Percentage of Connecticut’s Population has Educational Certificates as the Highest Level of Educational Attainment and How Does that Compare to Other States?

Federal data sources on the prevalence of sub-baccalaureate certificates in the population on a state-by-state level are somewhat dated. The most recent data that could be found was for 2008, as shown in Figure I-5. The chart illustrates that 9.8 percent of Connecticut’s population has a certificate as their highest degree attained. This was lower than the national average (12 percent) and placed Connecticut 11th from the bottom.

¹² The national figures for each type of institutions’ share of certificate awards are: Community colleges 51 percent; private for-profit 45 percent, and private nonprofit 4 percent. Source: NCES IPEDS 2010

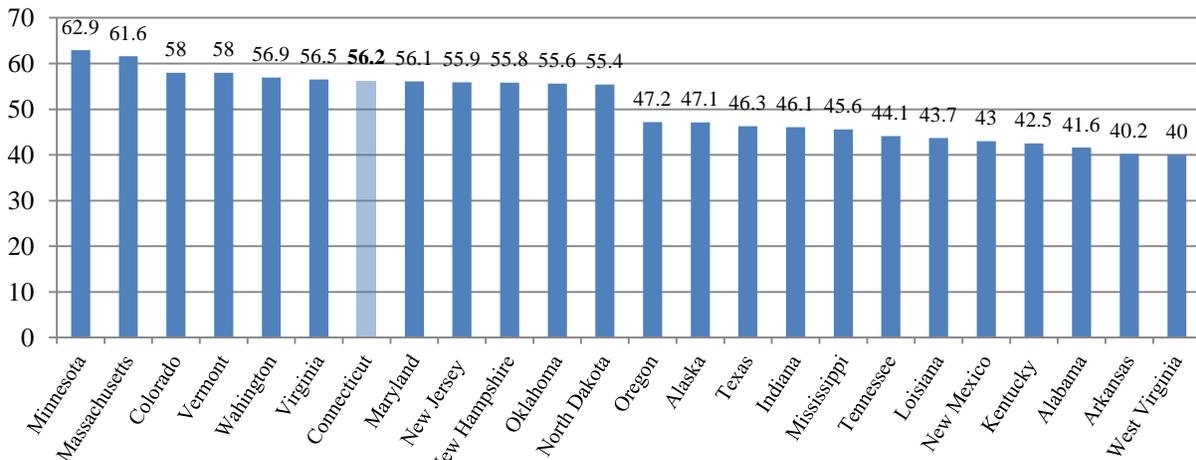
Figure I-5. Percent of 25-64 Year Olds with Certificates, Top and Bottom 12 States, 2008



Source: NECHMS., *A Strategic Master Plan for Connecticut Postsecondary Education, Interim Report*, Slide 65 based on U.S. Census Bureau 2008 SIPP survey

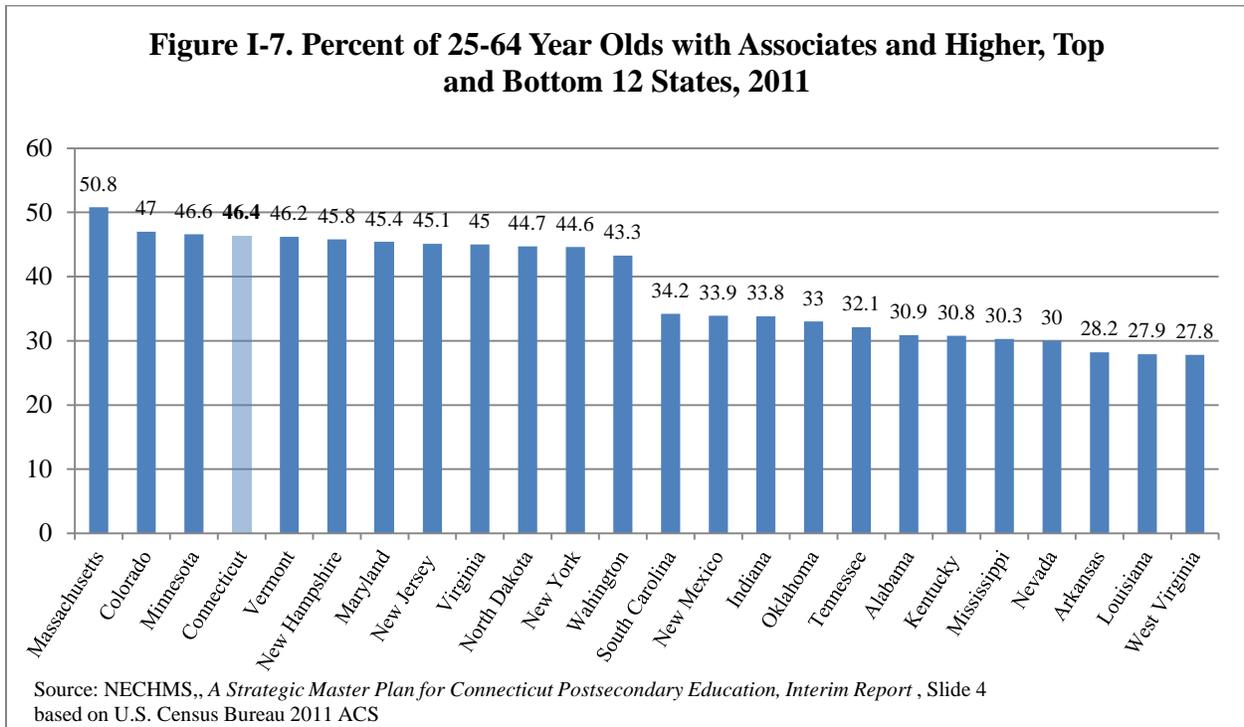
If the goal of the state is to ensure that a large number of its citizens have a postsecondary educational credential, it should be noted that Connecticut has relatively high postsecondary educational attainment as a whole. This tends to mitigate the lower certificate attainment ranking. As illustrated in Figure I-6, Connecticut has a high percentage of postsecondary awards (56 percent), when associate’s and bachelor’s degree holders are added to those with certificates. Based on 2008 data, Connecticut ranked seventh in the nation in educational attainment when all postsecondary credentials are considered.

Figure I-6. Percent of 25-64 Year Olds with Certificates and Higher, Top and Bottom 12 States, 2008



Source: NECHMS., *A Strategic Master Plan for Connecticut Postsecondary Education, Interim Report*, Slide 66 based on U.S. Census Bureau 2008 SIPP survey

Figure I-7 presents more recent data on educational attainment excluding certificates. It shows that just over 46 percent of Connecticut citizens aged 25 to 64 have an associate's degree or higher. On this measure, Connecticut ranks 4th in the nation.



Concerns about the rising amount of student debt coupled with low completion rates have prompted the federal government to enact a series of measures that are intended to strengthen federal oversight of certain certificate providers. These concerns are examined in the next chapter on federal oversight and accountability.

Federal Oversight and Accountability

There are three main elements of federal oversight that concern this study. They include: 1) the criteria set by the U.S. Department of Education for an institution to become eligible to participate in the Federal Student Aid (FSA) program;¹ 2) the FSA requirement that eligible institutions report certain demographic and student debt data to a federal database (known as IPEDs); and 3) the mandate that schools participating in the FSA program disclose student cost and completion rates to students and potential students. Each of these requirements is discussed in more detail in this chapter. It is important to note, federal oversight in these three areas only applies to institutions that participate in FSA and only for those programs meeting certain criteria within those institutions. Schools that forego FSA are not bound by the program's rules.

What Postsecondary Schools in Connecticut are Eligible to Participate in the Federal Student Aid Program?

The federal government plays a very large role in providing financial aid, which gives millions of students the opportunity to acquire a postsecondary education. In order for a postsecondary institution to qualify for the FSA program, a school must establish its eligibility under Title IV of the Higher Education Act (HEA) of 1965, as amended, and enter into a Program Participation Agreement (PPA) with the United States Department of Education. Establishing eligibility also includes a mandate for an institution to be accredited by a federally approved accrediting body; be authorized to by the state to operate; and *admit as a regular student* only individuals with a high school diploma or its recognized equivalent, or individuals beyond the age of compulsory school attendance in the state where the institution is located. An institution loses eligibility to receive Title IV funds under the program if it fails to maintain its academic accreditation.

It is important for schools to be able to offer student financial aid because a student who qualifies for financial aid can potentially enroll with very few of their own personal resources. It also provides a revenue stream for schools, with program rules allowing for-profit schools, otherwise known as proprietary schools, to receive up to 90 percent of their revenue from the FSA program. However, not all institutions, even those that would qualify, seek to participate in FSA. Reasons for not participating include accreditation requirements and federal reporting requirements, both being costly and time consuming for institutions.

Under federal regulation, three types of postsecondary institutions are eligible:

- institutions of higher education;

¹ Federal student aid programs Title IV are: Federal Family Education Loan Program i.e., (Federal Stafford Student Loan (subsidized and un-subsidized)), Federal Perkins Student Loan, Federal Parent Loan for Undergraduate Students, and Federal Supplemental Loan for Students) Federal Campus-Based Grants (Federal Supplemental Education Opportunity Grant and the Federal Pell Grant).

- proprietary institutions of higher education; and
- postsecondary vocational institutions.

By law, an institution of higher education or a postsecondary vocational institution can be either public or private but must be nonprofit. A proprietary institution of higher education must always be private and for profit. In addition, a school can participate in all the FSA programs provided the school offers the appropriate type of eligible program (see Table II-1). The table lists those institutions participating in the FSA program in Connecticut in parenthesis.

Table II-1. Postsecondary Institutions Eligible to Apply for Title IV funding and Participate in the Federal Student Aid Program	
<i>Type</i>	<i>Must Offer These Programs</i>
Institution of Higher Education (CT Public Colleges and nonprofit Colleges and Universities)	<ul style="list-style-type: none"> • Associate’s, Bachelor’s, graduate or professional degree; <i>or</i> • At least a two-year degree that is acceptable for full credit toward a bachelor’s degree; <i>or</i> • At least a one academic year training program that leads to a certificate or other nondegree recognized credential and prepares students for gainful employment in a recognized occupation.
Proprietary Institution of Higher Education (10 Private Occupational Schools in Connecticut)	<ul style="list-style-type: none"> • Cannot receive more than 90% of its revenues from Title IV funds. • Must provide training for gainful employment in a recognized occupation; or • Have provided a program leading to a baccalaureate degree in liberal arts continuously since Jan. 1, 2009 (with continuous accreditation since Oct. 1, 2007 or earlier). • Programs must meet criteria in at least one category: <ul style="list-style-type: none"> ○ Provide at least a 15-week undergraduate program of 600 clock hours, 16 semester or trimester hours, or 24 quarter hours. May admit students without an associate degree or equivalent. ○ Provide at least a 10-week program of 300 clock hours, 8 semester or trimester hours, or 12 quarter hours. Must be a graduate/professional program, or admit only students with an associate degree or equivalent. ○ Provide at least a 10-week program of 300-599 clock hours, must admit at least some students who do not have an associate degree or equivalent, and must meet specific qualitative standards (eligible only for Direct Loan participation)
Postsecondary Vocational Institution	<ul style="list-style-type: none"> • Must provide training for gainful employment in a recognized occupation. • Programs must meet criteria in at least once category: <ul style="list-style-type: none"> ○ Provide at least a 15-week undergraduate program of 600 clock hours, 16 semester or trimester hours, or 24 quarter hours. May admit students without an associate degree or equivalent. ○ Provide at least a 10-week program of 300 clock hours, 8 semester or trimester hours, or 12 quarter hours. Must be a graduate/professional program, or admit only students with an associate degree or equivalent. ○ Provide at least a 10-week program of 300-599 clock hours, must admit at least some students who do not have an associate degree or equivalent, and must meet specific qualitative standards (eligible only for Direct Loan participation)

Source: School Eligibility and Operations, FSA HB June 2013, pages 2-4.

What Certificate Programs in Connecticut’s Public Colleges Meet the Title IV Funding Criteria?

Since Connecticut’s community colleges play a significant role in offering for-credit and noncredit certificate programs, in terms of the public higher education system, PRI staff focused on them. While all community colleges participate in the FSA program, only students enrolled in community college for-credit certificate programs are eligible to receive it. Financial aid is unavailable to students enrolled in noncredit certificate programs offered by community colleges since these programs do not meet the criteria summarized earlier in this section. Thus, gainful employment data must be reported only for students enrolled in for-credit programs because those programs are FSA eligible.

How Many Proprietary Schools in Connecticut Meet the Title IV Funding Criteria?

There are 57 private occupational schools in Connecticut, of which only 10 schools (18 percent) are eligible to receive Title IV-funds and eight schools operate 15 branches. All of the 10 schools that are Title IV eligible are considered for profit (i.e., proprietary schools). Six schools that are not eligible for Title IV Funds operate nine branches. A complete list of private occupational schools, including those eligible to receive Title IV funds, can be found in Appendix A.

What Information Do Title IV Eligible Schools have to Report to the U.S. Department of Education?

Integrated Postsecondary Education Data System (IPEDS). This is the core postsecondary education data collection program for the U.S. Department of Education. It contains nine interrelated survey components that are collected over three seasonal periods each year. The completion of all IPEDS surveys is mandatory for all institutions participating in the FSA program, but only for those programs that are Title IV eligible. Data collection efforts began in 1993.

The data system contains a number of measures that provide a more comprehensive picture of an institution, and allows comparisons across Title IV-eligible institutions. Some of the data that must be reported include: institutional characteristics; student enrollment and completion data; student costs to attend; and amounts of financial aid granted. However, the system does not capture information on students enrolled in noncredit community college programs because they are not eligible for Title IV funding, or from proprietary schools that do not participate in Title IV funding. In Connecticut, this includes more than half the students that are receiving certificates. Therefore, information on a major portion of students enrolled in, and completing, sub-baccalaureate certificate programs is not reported to IPEDS, and is not reported anywhere else on a national basis.

Student Right-to-Know and Campus Security Act. In compliance with the Student Right to Know Act (P.L. 101-542) adopted in 1990, all colleges and universities receiving Title IV funds are required by the U.S. Department of Education to report certain information to students, employees and prospective students. This act requires disclosure of information about graduation or completion rates for certificate- or degree-seeking full-time students to current and

prospective students. Completion of the Graduation Rate Survey (part of IPEDS reporting for Title IV institutions) meets the reporting requirements of the law.

What Does the Term “Gainful Employment in a Recognized Occupation” Mean?

Growing concerns by the U.S. Department of Education led to the development of regulations beginning in 2009 to better measure the value of certificates earned by students who had received federal financial aid because they were enrolled in a program that led to “gainful employment in a recognized occupation” (a term used since 1965, but never defined). The need for regulations was prompted by a belief that a number of students were receiving financial aid for gainful employment programs that:

- were not training students in the skills they need to obtain and maintain jobs in the occupation for which the program purports to provide training;
- were providing training for an occupation for which low wages do not justify program costs;
- had a high student withdraw rate because relatively large numbers of students enroll but few complete the program, which often leads to students defaulting on their loans; and
- leave students with high levels of loan debt in relation to their earnings.

In Connecticut, the gainful employment regulations would apply only to for-credit certificate programs offered by community colleges, independent nonprofit colleges and universities, and ten of the 57 postsecondary schools that participate in Title IV funds.

As a result of these concerns, the U.S. Department of Education took steps to strengthen student disclosure requirements and impose penalties on schools that have poor student debt-to-earnings and FSA student loan default rates. Final regulations were published in October 2010 (effective July 1, 2011).

The purpose of the regulations was to define the term “gainful employment in a recognized occupation” by establishing three fiscal measures for determining whether certain postsecondary educational programs prepare students for gainful employment in a recognized occupation. The U.S. Department of Education planned to track program graduates and dropouts each year to determine of each program offered by a school had:

1. an annual loan repayment rate of 35 percent;
2. a ratio that measures debt in relation to annual earnings of 30 percent or less.
3. a ratio that measures debt in relation to discretionary income of 12 percent or less; and

Under the regulation, institutions would be required to report, for each award year, information about each student receiving Title IV funds who is enrolled in a gainful employment program.

Certain postsecondary schools would have to meet these standards in order for their educational programs to remain eligible for the FSA program. Graduated sanctions would be imposed over a three-year period. These standards are useful for assessing whether certificates lead to employment with high wages.

After a court challenge and a June 2012 court ruling that struck down one of the financial aid metrics (the 35 percent annual loan repayment rate, which the judge called arbitrary) that institutions must meet in order to maintain eligibility for Title IV funds, the department requested certain gainful employment provisions be reinstated, which the court denied in March 2013. The department indicated it would drop efforts to revive the old rule and would instead develop a new one. The court decision only impacted the financial metrics used that would make an institution lose Title IV eligibility if they were not met. It did not affect the gainful employment student disclosure requirements for institutions, which became effective July 2011.

A website link to the disclosure information is required on every college or university web page referring to the gainful employment program. The regulations also require institutions to notify the department if they planned to add an additional gainful employment program to its list of Title IV eligible programs. Since July 2011, each institution must disclose for each of its gainful employment programs:

- name and U.S. Department of Labor's Standard Occupational Classification (SOC) code of the occupations that the program prepares students to enter, along with links to occupational profiles on the U.S. Department of Labor's Occupational Information Network (O*NET) web site;
- on-time graduation rate for students completing the program;
- tuition and fees charged to a student for completing the program within normal time;
- typical costs for books and supplies (unless those costs are included as part of tuition and fees), and the cost of room and board, if applicable;
- job placement rate for students completing the program; and
- median loan debt incurred by students who completed the program (separately by Title IV loans and by other educational debt to include both private educational loans and institutional financing) as provided by the education secretary.

Currently, if a certificate program has fewer than 30 students enrolled, the institution does not have to report some of the information for the program in order to preserve student confidentiality.

The department issued a new proposed rule in March 2014 and it is expected to be finalized in October. The rule lays out two primary metrics for judging program eligibility for Title IV funds. Under the proposed rule, gainful employment programs with high debt-to-earnings ratios or high program-level cohort default rates would lose Title IV eligibility for three years. The rule requires, in general:

- under the debt-to-earning metric, students who complete a gainful employment program would need to spend, on average, no more than 8 percent of their annual income, or 20 percent of their discretionary income, on their student loan payments.

- under the program cohort default metric, no more than 30 percent of the students who enrolled or completed a particular gainful employment program could default on their student loans.

In addition, the proposed rule provides some protections for gainful employment programs with a low percentage of student borrowers. For example, gainful employment programs where less than 50 percent of students took out federal student loans would be able to appeal a negative determination under the debt-to-earning metric.

Data on various program measures for Connecticut postsecondary schools that participate in FSA were collected by the U.S. Department of Education and used to provide information to schools to see where they stand in relation to the metrics. The data are available on the department's Gainful Employment website. Key measures in the Gainful Employment data set included information on 12 private postsecondary occupational schools in Connecticut (reported for 2011) and showed:

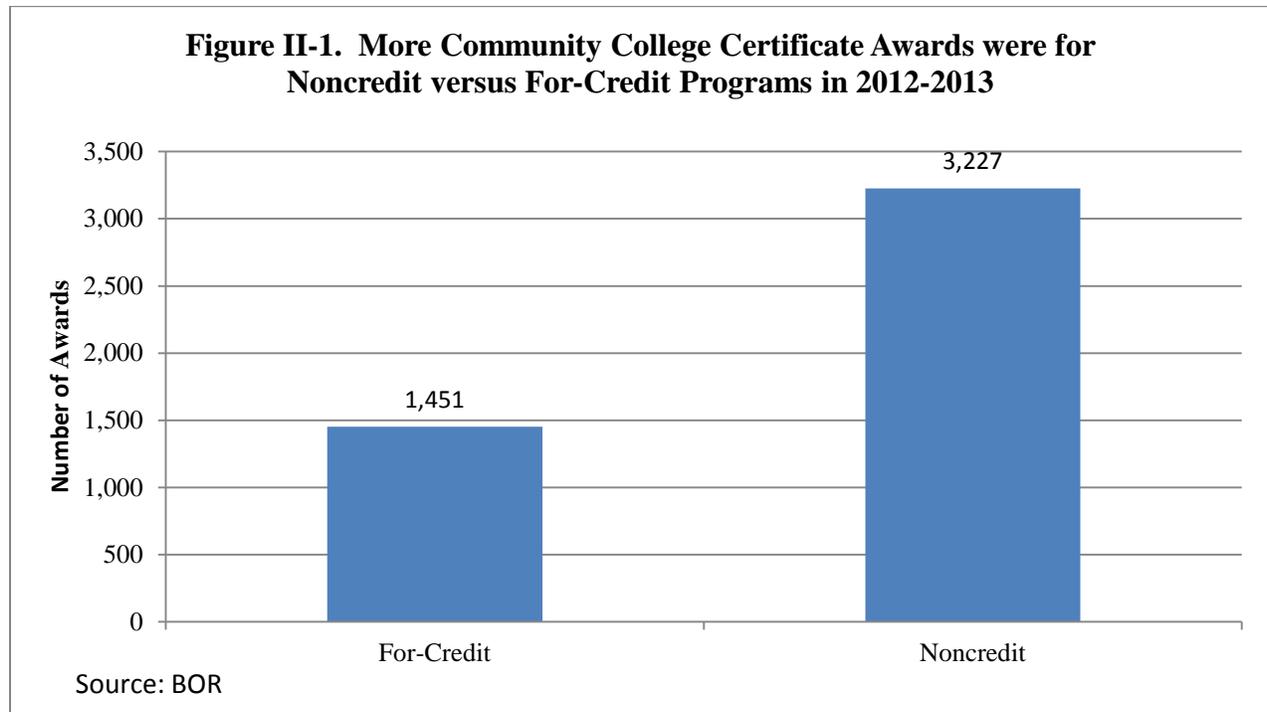
- repayment rate, which measures the percent of gainful employment program's former students who are repaying their federal student loans, regardless of whether the former students completed the program. This ranged from about 12 percent for a program in culinary arts to 75 percent for graduates of a massage therapy certificate program; no data was reported for 36 programs;
- debt-to-earnings annual rate, which ranged from 8.23 percent for a certificate program in motorcycle maintenance and repair to 1.43 to a massage therapy; and
- median Title IV loan amounts, which ranged from a low of \$700 to a high of \$16,535 for a certificate in licensed practical nursing.

How Many Certificate Awards have Been Granted Recently by Community Colleges and Private Occupational Schools?

Community colleges. The board of regents provided PRI staff with community college certificate student completion data for both for-credit and noncredit programs. Figure II-1 compares for-credit and noncredit completion data for community college certificate programs for the 2012-2013 academic year. It is important to note, the data shows the number of certificates awarded, not the number of students that completed a program (i.e., a student may have completed more than one certificate and that is not reflected in the data). As the figure shows, more than double the number of certificates completed were offered through noncredit programs – data that would not be reflected in either IPEDS or Gainful Employment disclosures discussed earlier in this chapter.

Although BOR was confident of the data provided on the number of awards granted for for-credit certificate programs, the board urged caution in interpreting the noncredit certificate completion data in the figure. While conducting analysis for PRI staff, the board found that many noncredit student enrollments were not accounted for in its data system, nor for the total number of noncredit awards granted. As a result, the board indicated that the numbers reported to PRI staff underrepresent the noncredit certificate program activity that actually occurred at any given

community college and may only be interpreted as the *minimum* number of noncredit completions. The board indicated to PRI staff that they are working to correct this flaw in the system and expect to have more complete data by next year.



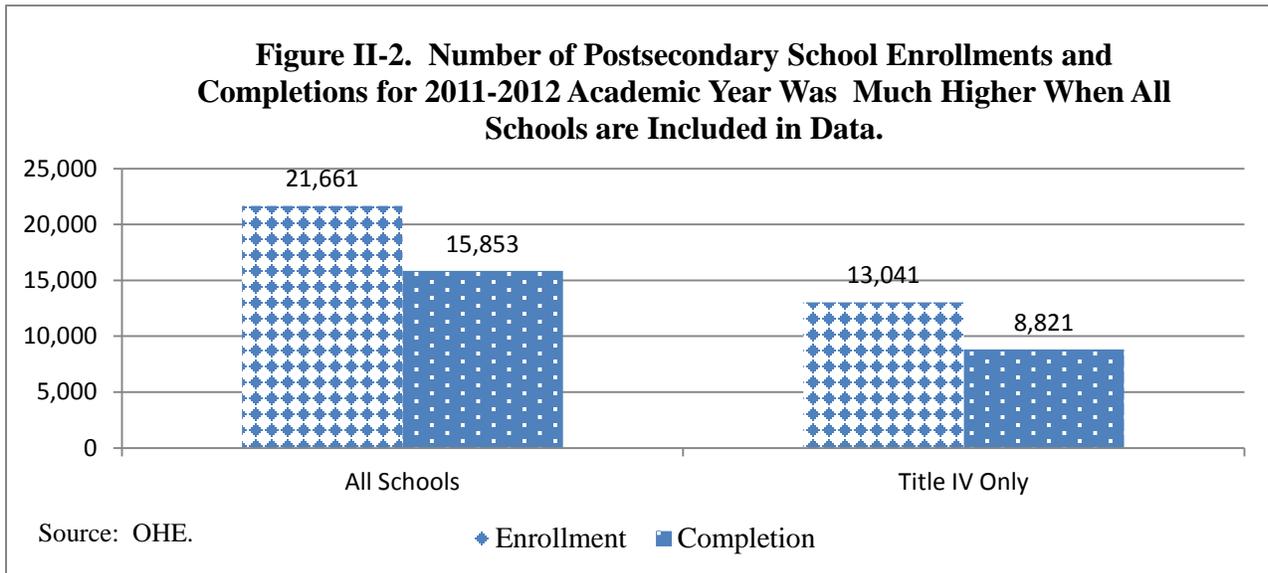
The board also noted an additional caveat when interpreting the noncredit certificate completion data. The completion rate may also be undercounted because some students move from noncredit to for-credit programs of study before completing the noncredit program. These students should be measured as successful, but instead are counted as non-completers, which skews noncredit certificate completion statistics.

Postsecondary occupational schools. Connecticut’s Office of Higher Education collected graduation and placement data on a cohort of students enrolled in private occupational certificate programs at the beginning of fall 2011, completion rates by June 30, 2012, and whether the school was Title IV-eligible. Figure II-2 shows:

- total student enrollment in private occupational schools was 21,661 students
 - (13,041 students or 60 percent attend Title IV eligible schools);
- completion rate was 15,853 students (73 percent);
 - the completion rate for students enrolled in Title IV eligible schools was 8,821 students (68 percent); and
- completion rates for all certificate programs offered ranged from 7.8 percent to 100 percent.

The survey responses are not audited by OHE and contain self-reported data submitted by each private occupational school.

PRI staff is attempting to obtain similar cohort data from BOR on the number of community college students who enrolled and completed versus withdrew from a certificate program. However, it is unknown whether these students can be tracked in a similar manner.



State Oversight

This chapter describes the state organizational structure that offers for-credit and noncredit certificate programs to students, identifies who is responsible for overseeing and approving certificate programs, and measures employer demand for program graduates. Figure III-1 identifies the major responsibilities of each entity as it relates to certificate programs.

What State Entities Oversee the Postsecondary Education System in Connecticut, Measure Workforce Demand and Develop Alignment Strategies?

The **Board of Regents for Higher Education (BOR)** governs seventeen Connecticut state colleges and universities: four state universities, 12 community colleges, and Charter Oak State College, Connecticut's only public, online, degree-granting institution.

A particular focus of this study, in the public higher education system, is on the state's community colleges, since they are the primary place that sub-baccalaureate certificate programs are offered in the public arena. Connecticut's 12 two-year public colleges are shown in the map in Figure III-1.

Figure III-1. Names and Locations of Connecticut's Community Colleges.



Source: BOR

Community colleges provide two types of educational programs: for-credit and noncredit. Credit programs can lead to certificates or associate degrees and require a high school diploma or GED for admission. Certificate programs that are credit-bearing require formal approval by the board of regents before being offered by a community college. Noncredit courses are typically classified as either workforce or personal development and do not require either notification from the college to the board of regents, or the board's approval. The focus of this study is on for-credit and noncredit workforce development certificate programs.

The Office of Higher Education (OHE) was established in July 2012 to provide consumer protection and administer programs supporting Connecticut's higher education system. Those programs include:

- institutional and academic program review and approval for independent institutions, as well as private occupational, hospital-based schools, and hairdressing/cosmetology schools;
- student financial aid programs for Connecticut undergraduates, in addition to aid programs for potential teachers; and
- programs for students through the Minority Advancement Program, the Alternate Route to Certification, the Commission on Community Service, the Connecticut - Germany Student Exchange, and Teacher Quality Partnership Grants.

For this study, PRI staff concentrated on certificate programs offered by the nonprofit colleges and universities and the 57 private occupational schools and OHE's oversight responsibilities. OHE is responsible for initial and ongoing approval of the schools' operations and programs.

The Connecticut Department of Labor (DOL) is the state's lead agency for producing information and statistics on the economy, workforce and occupation demand, and growth in industry sectors. It also is responsible for administering a variety of federal and state employment service programs, as well as regulating and enforcing working conditions, wage standards, and labor relations.

In terms of this study, DOL is currently analyzing data from the P20 WIN system that will provide information, in aggregate, on certificate completers and their earnings before and after certificate completion.¹

¹ The Preschool through 20 and Workforce Information Network (P20 WIN) allows for inter-agency data sharing of longitudinal student data to assess how individuals successfully navigate educational pathways into the workforce. Participating agencies are the Connecticut Board of Regents for Higher Education, Connecticut Department of Labor, and State Department of Education.

The Office of Workforce Competitiveness (OWC), located within DOL, serves as the governor's principal workforce development policy advisor. OWC collaborates with multiple partners to: align resources; coordinate employment, education and training programs; and promote strategies that meet Connecticut industry's projected job growth needs. OWC staffs and provides technical assistance to the Connecticut Employment and Training Commission (CETC).

The Connecticut and Employment Training Commission (CETC) was created in 1989 with a statutory mandate to plan, coordinate, and evaluate training programs. CETC is the State Workforce Investment Board under the federal Workforce Investment Act (WIA) and state statute. Commission members represent Connecticut businesses, key state agencies, regional/local public entities, organized labor, community-based organizations, and other key stakeholders.

In August 2011, CETC was restructured administratively, requiring members to have a lead role in proposing policy and strategy to coordinate workforce efforts. Currently, the commission provides workforce-related policy and planning guidance to the governor and General Assembly. It also promotes coordination of the state's workforce-related activities, and provides some funding, through regional Workforce Investment Boards, for individuals seeking to obtain a workforce development certificate.

Next Steps

PRI staff focus for the remainder of the study will be on: 1) developing a profile of certificate programs offered by the community colleges, private occupational schools, and the nonprofit universities and colleges in Connecticut; 2) analyzing the outcomes of community college certificate completers; 3) examining the overall supply of certificates, comparing completions to demand by specific occupations; and 4) developing study findings and recommendations.

There are multiple sources of data to analyze, which are described below.

- The Board of Regents for Higher Education has provided a wealth of information to PRI staff about for-credit and noncredit certificate programs and students enrolled in the community college system. PRI staff will be analyzing this data to produce a more comprehensive profile of those programs/students during the study's next phase.
- The nonprofit college and university system, through the Connecticut Conference of Independent Colleges, is also going to provide similar certificate production data to PRI staff.
- The Office of Higher Education, in its annual survey to postsecondary occupations schools, included PRI staff questions to assist in gathering better information about students and the types of programs offered by postsecondary occupational schools that do not grant degrees but offer workforce development certificates that make graduates job ready.
- Department of Labor and BOR staff are analyzing data from Connecticut's Preschool through 20 and Workforce Information Network (P20 WIN). This information will allow examination of community college certificate completers' outcomes in terms of placement rates, employment relevancy, and earnings.
- The Department of Labor projections for both certificate completers and occupations that are related to certificates will be analyzed in terms of the alignment between graduates and jobs.

Appendix A

Postsecondary Institutions Included in This Study

Table A-1. Public Community Colleges and Online College

	<i>College</i>	<i>Location</i>
1	Asnuntuck Community College	Enfield
2	Capital Community College	Hartford
3	Gateway Community College	New Haven
4	Housatonic Community College	Bridgeport
5	Manchester Community College	Manchester
6	Middlesex Community College	Middletown
7	Naugatuck Valley Community College	Waterbury
8	Northwestern Connecticut Community College	Winsted
9	Norwalk Community College	Norwalk
10	Quinebaug Valley Community College	Danielson
11	Three Rivers Community College	Norwich
12	Tunxis Community College	Farmington
13	Charter Oak State College	New Britain

Source: OHE

Table A-2. In-State, Nonprofit Institutions

	<i>College/University</i>	<i>Location</i>
1	Albertus Magnus College	New Haven
2	Connecticut College	New London
3	Fairfield University	Fairfield
4	Goodwin College	East Hartford
5	Lyme Academy College of Fine Arts	Old Lyme
6	Mitchell College	New London
7	Quinnipiac University	Hamden
8	Sacred Heart University	Fairfield
9	St. Vincent's College	Bridgeport
10	Trinity College	Hartford
11	University of Bridgeport	Bridgeport
12	University of Hartford	West Hartford
13	University of New Haven	West Haven
14	University of Saint Joseph	West Hartford
15	Wesleyan University	Middletown
16	Yale University	New Haven

Source: OHE

Table A-3. Private Occupational Schools

	<i>School</i>	<i>Location</i>	<i>Title IV Eligible</i>
1	A. B. Training Center, LLC	Waterford	
2	Academy of Medical Training, LLC	Waterbury	
3	Academy of Medical Training, LLC (Branch)	Hamden	
4	Affordable CDL Training School	Colchester	
5	Allstate Commercial Driver Training School	Seymour	
6	American Institute of Healthcare & Technology, LLC	Stratford	
7	American Professional Educational Services, Inc.	Norwich	
8	American Red Cross Vocational School	New Haven	
9	- American Red Cross Vocational School (Branch)	Bethel	
10	- American Red Cross Vocational School (Branch)	Bridgeport	
11	- American Red Cross Vocational School (Branch)	East Hartford	
12	- American Red Cross Vocational School (Branch)	Waterbury	
13	Bartenders Academy LLC	Waterbury	
14	- Bartenders Academy LLC (Branch)	Fairfield	
15	Boston Bartenders School of America	Hamden	
16	Boston Bartenders School of America	Wethersfield	
17	Branford Hall Career Institute	Branford	Y
18	- Branford Hall Career Institute (Branch)	Southington	Y
19	- Branford Hall Career Institute (Branch)	Windsor	Y
20	CFA Floral Design School	Monroe	
21	Connecticut Center For Arts and Technology	New Haven	
22	Connecticut Center for Massage Therapy, Inc.	Newington	Y
23	- Connecticut Center for Massage Therapy, Inc. (Branch)	Groton	Y
24	- Connecticut Center for Massage Therapy, Inc. (Branch)	Westport	Y
25	Connecticut Computer Service, Inc.	Plantsville	
26	Connecticut Computer Service, Inc. (Branch)	East Hartford	
27	Connecticut K-9 Education Center	Newington	
28	Connecticut Public Broadcasting, Inc. Institute for Advanced Media	Hartford	
29	Connecticut School of Bartending, Inc.	Norwich	
30	Connecticut School of Broadcasting - Farmington	Farmington	
31	Connecticut School of Broadcasting Stratford	Stratford	
32	Connecticut School of Integrative Manual Therapy, Inc.	West Hartford	
33	Construction Education Center, Inc	Rocky Hill	
34	Cook's Nurse Aide Training Program	Plymouth	
35	Danae's Training Center	New Haven	
36	Dent-Temp Careers, LLC	Stratford	
37	Dorsey Training Direct, LLC	Bridgeport	
38	Eastern Connecticut Radio Academy Broadcasting School	Willimantic	

Table A-3. Private Occupational Schools			
	<i>School</i>	<i>Location</i>	<i>Title IV Eligible</i>
39	Educational Training of Wethersfield	Wethersfield	
40	- Educational Training of Wethersfield at New London (Branch)	New London	
41	Fox Institute of Business, Inc. d/b/a American Institute	West Hartford	Y
42	Greater Hartford Orthodontic Assistant Training Academy	Wethersfield	
43	Harris School of Business	Danbury	
44	ICES, Inc dba Advantage Career Training	Naugatuck	
45	Independent Connecticut Petroleum Association Ed Found., Inc., d/b/a ENTECH Advanced Energy Training	Cromwell	
46	Industrial Management & Training Institute	Waterbury	Y
47	Institute of Aesthetic Arts and Sciences	Southbury	
48	Institute of Allied Medical Professions	Stamford	
49	Institute of Children's Literature	West Redding	
50	Institute of Environmental Management and Technology, Inc.	Shelton	
51	Jewelry & Watch Repair School of New England	Manchester	
52	John Casablancas Modeling & Career Center	Rocky Hill	
53	Labco School of Dental Assisting, Plus	Derby	
54	Lincoln Technical Institute - Hartford (Lincoln Culinary Institute)	Hartford	Y
55	Lincoln Technical Institute	New Britain	Y
56	- Lincoln Technical Institute (Branch)	East Windsor	Y
57	- Lincoln Technical Institute (Branch)	Hamden	Y
58	- Lincoln Technical Institute (Lincoln Culinary Institute) (Branch)	Shelton	Y
59	Long Ridge Writers Group	West Redding	
60	Med-Care Training	Brookfield	
61	Medical Coding Academy, LLC	New Haven	
62	National Personal Training Institute, Inc.	Norwalk	
63	New England Tractor Trailer Training School of CT	Somers	Y
64	- New England Tractor Trailer Training School (Branch)	Bridgeport	Y
65	Porter & Chester Institute	Stratford	Y
66	- Porter & Chester Institute (Branch)	Enfield	Y
67	- Porter & Chester Institute (Branch)	Rocky Hill	Y
68	- Porter & Chester Institute (Branch)	Watertown	Y
69	Porter and Chester Institute of Branford	Branford	Y
70	Professional Dental Assistant School	Norwalk	
71	Ridley-Lowell	New London	Y
72	- Ridley-Lowell (Branch)	Danbury	Y

Table A-3. Private Occupational Schools

	<i>School</i>	<i>Location</i>	<i>Title IV Eligible</i>
73	School of Interior Redesign LLC	Beacon Falls	
74	Stone Academy	West Haven	Y
75	- Stone Academy (Branch)	East Hartford	Y
76	- Stone Academy (Branch)	Waterbury	Y
77	Stormwater One, LLC	Meriden	
78	The C.N.A. Preparatory School	West Haven	
79	Valley Medical Institute	Bridgeport	

Source: OHE, As of May 2014