



COLLECTING AND DISSEMINATING DATA ON CERTIFICATE AWARDS

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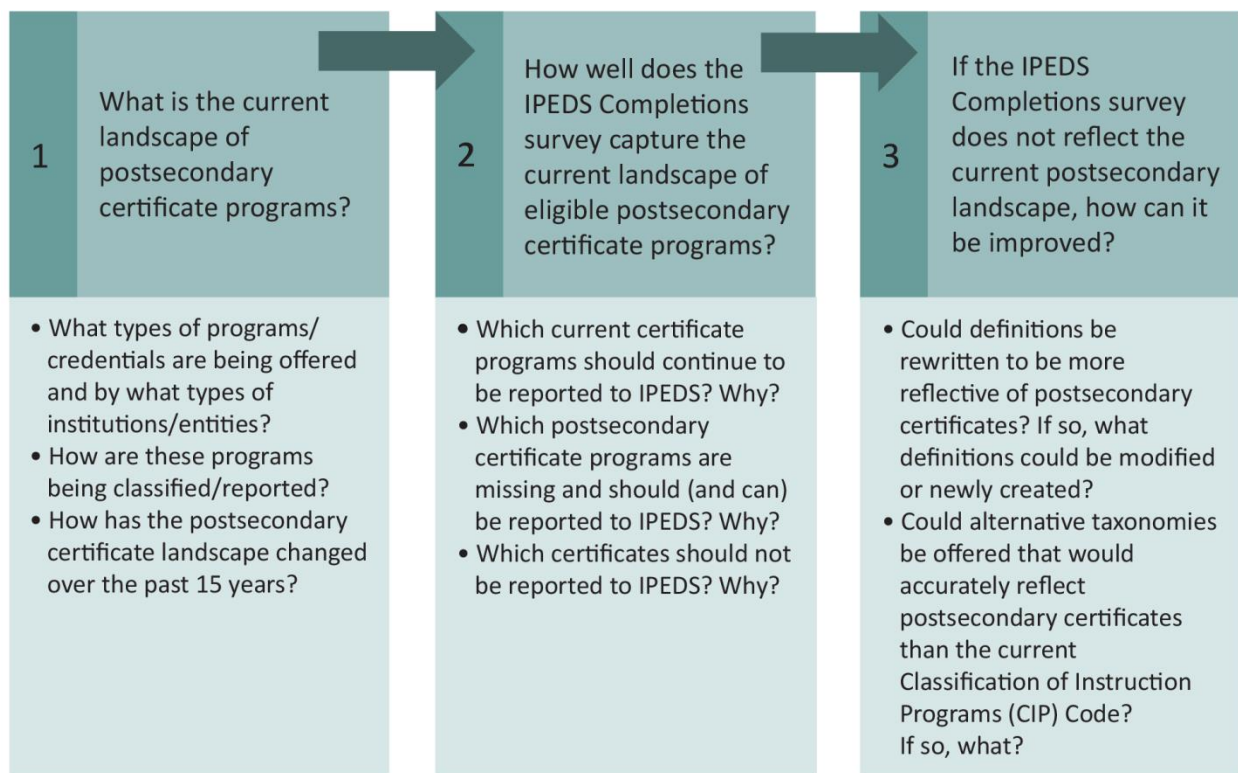
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COLLECTING AND DISSEMINATING DATA ON CERTIFICATE AWARDS

INTRODUCTION

The National Postsecondary Education Cooperative (NPEC) of the Integrated Postsecondary Education Data System (IPEDS) commissioned this research paper to examine the postsecondary certificate program landscape and to extend the 2012 NPEC report, *Defining and Reporting Subbaccalaureate Certificates in IPEDS*, which clearly identified several problems with collecting and reporting data on certificates. This research set out to answer the following research questions:



To answer these questions, the NPEC-IPEDS commissioned Coffey Consulting, LLC (Coffey) to conduct a review of the postsecondary credential literature, analyze relevant IPEDS data elements, and conduct informational interviews with a purposive sample of stakeholders. A detailed description of the methodology can be found in Appendix A. It should be noted that this research, like all NPEC-commissioned research, is exploratory in nature and meant to provide background information for Technical Review Panels, to set the stage for further investigation, and aid in future decisions about changes to survey instruments.

CURRENT CERTIFICATE LANDSCAPE: FINDINGS FROM THE LITERATURE

>> Research Question 1: What is the current landscape of postsecondary certificate programs?

Higher education in the United States has seen a dramatic increase in the number of annual certificate completions over the past several decades (Carnevale, Rose, & Hanson, 2012). Primarily awarded by for-profit institutions and community colleges, certificates “are recognition of completion of a course of study based on a specific field, usually associated with a limited set of occupations” (Carnevale et al., 2012, p. 3). Commonly awarded certificates include those in healthcare, cosmetology, and trades such as auto mechanics, metalworking, and refrigeration. Reports in the past decade calling on U.S. institutions to boost the national college attainment rate have increasingly focused on certificates as a source to help accomplish this goal while also meeting economic demands for job-specific skill-sets (Complete College America, 2010; Lumina Foundation, 2016). The following summary of recent literature reviews emerging alternative pathways, certificate program data collection and related challenges, and emerging certificate datasets.

EMERGING ALTERNATIVE PATHWAYS TO CERTIFICATES

While the IPEDS Completion survey component primarily collects information on “formal awards,”¹ or certificates in an independent field of study awarded by Title IV educational institutions, alternative pathways to certificates and credentials have emerged that accommodate the needs of “non-traditional” college students like working adults (Young, 2015). Among these alternative certificate pathways are “portable” and “stackable” credentials that are both transferable and short-term, and can be built upon throughout a career (Austin, Mellow, Rosin, & Seltzer, 2012). These types of programs require communication and collaboration between institutions and employers to ensure that programs prepare students with in-demand skill sets (Austin et al., 2012).

Other innovations in credentialing are “microdegrees” – online programs where students earn certificates in a specific skill or knowledge set based upon their career of interest (Young, 2015). Some institutions offer “competency badges” in specific skills and abilities, which are recognized by some employers (Blumenstyk, 2015). Coding boot camps are another increasingly common pathway to certificates that have continued to increase in popularity over the past decade (Eggleston, 2015).

In 2017, the U.S. Department of Education will begin offering financial support to students enrolling in a select group of eight pilot partnerships between postsecondary institutions and

¹ [2016-17 IPEDS Completions Component Instructions](https://surveys.nces.ed.gov/ipeds/VisInstructions.aspx?survey=10&id=30080&show=all)
(<https://surveys.nces.ed.gov/ipeds/VisInstructions.aspx?survey=10&id=30080&show=all>)

nontraditional education providers through the Educational Quality through Innovative Partnerships (EQUIP).² The EQUIP experiment enables Title IV institutions to offer financial aid to eligible students participating in these alternative credential programs provided that over half of instruction is provided by the institution, and that partnerships follow a rigorous quality assurance process including accreditation (U.S. Department of Education, 2016).

FEDERAL CERTIFICATE PROGRAM DATA COLLECTION

Certificates data are tracked primarily by three national datasets of certificate and other non-degree credentials – IPEDS, the U.S. Bureau of Labor Statistics’ National Longitudinal Survey of Youth (NLSY), and the U.S. Census Bureau Survey of Income and Program Participation (SIPP). IPEDS contains information on all “formal awards,” including sub-baccalaureate certificates, as self-reported by educational institutions that receive funding under Title IV of the Higher Education Act (Sykes, 2012). However, it should be noted that while the institution may be Title IV eligible, the individual program may not be. The NLSY has been annually tracking, among other things, the educational involvement and attainment of a cohort of youths, beginning in 1997 when they were aged 12-17. These education data include enrollment status, area of study, institution characteristics, credits or hours earned towards certificate, associates and/or bachelor’s degrees, award attained, and transcript performance data. SIPP has collected educational attainment data including professional certification³, state or industry licensure, and educational certificates from a nationally representative sample of U.S. adults every four months since 2008 (Ewert & Kominski, 2014; U.S. Census Bureau, 2016).

IPEDS Completions survey

The IPEDS Completions component includes information about the number of degrees and other awards conferred, from sub-baccalaureate certificates to doctorate’s degrees, from participating institutions during the prior academic year. This survey component is administered each year and reflects the reporting period from July 1 through June 30. Institutions report the number of degrees and other awards by race/ethnicity, gender, and by field of study using the Classification of Instructional Programs (CIP) code system. Recently (since 2012-13), the Completions component has also started collecting information about the number of completers, or students who earn awards, by age, race/ethnicity, and gender, as well as about programs that can be completed entirely through distance education. Since students can earn more than one degree or award in a calendar year, the addition of information about the number of completers allows for an unduplicated count of students who received a degree or award during the reporting period.

² For background and timeline information on the Department’s EQUIP experiment, please see the [October 14, 2015 ED press release](http://www.ed.gov/news/press-releases/fact-sheet-department-education-launches-educational-quality-through-innovative-partnerships-equip-experiment-provide-low-income-students-access-new-models-education-and-training) (<http://www.ed.gov/news/press-releases/fact-sheet-department-education-launches-educational-quality-through-innovative-partnerships-equip-experiment-provide-low-income-students-access-new-models-education-and-training>).

³ Note that professional certifications are similar to industry licenses and distinct from postsecondary education certificates.

CHALLENGES OF CERTIFICATE DATA COLLECTION PRACTICES

The 2012 NPEC report, *Defining and Reporting Subbaccalaureate Certificates in IPEDS*, identified several challenges and differences in institutional practices for reporting certificates to IPEDS. Institutions had different interpretations of terms associated with reporting requirements such as “independent programs of study” and “formal program of study” (Sykes, 2012, p. 8). Some institutions indicated imposing a minimal number of credit hours on programs for reporting to IPEDS, although the IPEDS Completions survey does not specify a minimum. Institutions also said they were unsure how to report noncredit certificates, certificates gained in the process of earning another credential, and certificates acquired through programs ineligible for Title IV funding (Sykes, 2012).

A 2014 study by the National Center for Innovation in Career and Technical Education (NCICTE) study found similar variability within state-level data collection systems in 29 states. NCICTE staff reviewed materials, data, and documentation of state websites and interviewed state officials to investigate the breadth and depth of data collection and availability. Although enrollment data on credit-based certificate and degree courses were readily available, little was known about noncredit programs that led to certificates or industry-recognized certification. For the states that collected such information, the data were inconsistent and unreliable because states took different approaches to defining and categorizing the programs (State of Utah Office of the Legislative Auditor General, 2015; Sykes, Szuplat, & Decker, 2014). Student-level data were also rarely available for noncredit certificate programs (Sykes et al., 2014).

In response to the inconsistencies and misconceptions in certificate data collection, several organizations and researchers have developed tools and processes to strengthen and streamline the process, including guides to help institutions collect data in a more uniform and consistent manner. Complete College America (CCA) and the National Governors Association (NGA) produced the *Common College Completion Metrics Technical Guide* (2014). The *Guide* contains detailed definitions of credential metrics and a set of principles to create greater alignment across state supporting systems and help institutions analyze and utilize the collected data (CCA, 2014). Similarly, the National Research Center for Career and Technical Education (NRCCTE) participated in a collaborative to create a “common data dictionary” with voluntarily-contributed state data used for the Carl D. Perkins Career and Technical Education Act of 2006 reporting requirements (Kotamraju, 2010). In making these data available, the partners hope that states can align their reporting methods and benefit from analyzing other state data.

EMERGING CERTIFICATE DATASETS

In 2012, representatives from the U.S. Census Bureau, U.S. Bureau of Labor Statistics, National Center for Education Statistics (NCES), and several other federal agencies formed the Interagency Working Group on Expanded Measures of Enrollment and Attainment (GEMEnA) (Bielick, Cronen, Stone, Montaquila, & Roth, 2013). From 2010 to 2011, GEMEnA conducted the national Adult Training and Education Survey (ATES) Pilot Study of noninstitutionalized adults in the United States. ATES was an attempt to better understand how to collect more accurate data on educational certificate, professional certifications, and licenses in federal surveys (Bielick et al., 2013; Ewert & Kominski, 2014). The study found that respondents had difficulty distinguishing and/or categorizing different types of credentials. For example, there was confusion over the distinction between certifications and certificates, as well as certifications and licenses (Bielick et al., 2013). The report recommended several alterations to survey question language that clarified question content and intent for participants (Bielick et al., 2013). GEMEnA is currently piloting a national survey to collect information on educational and industry-recognized certificates, occupational licenses, and other professional training programs (NCES).

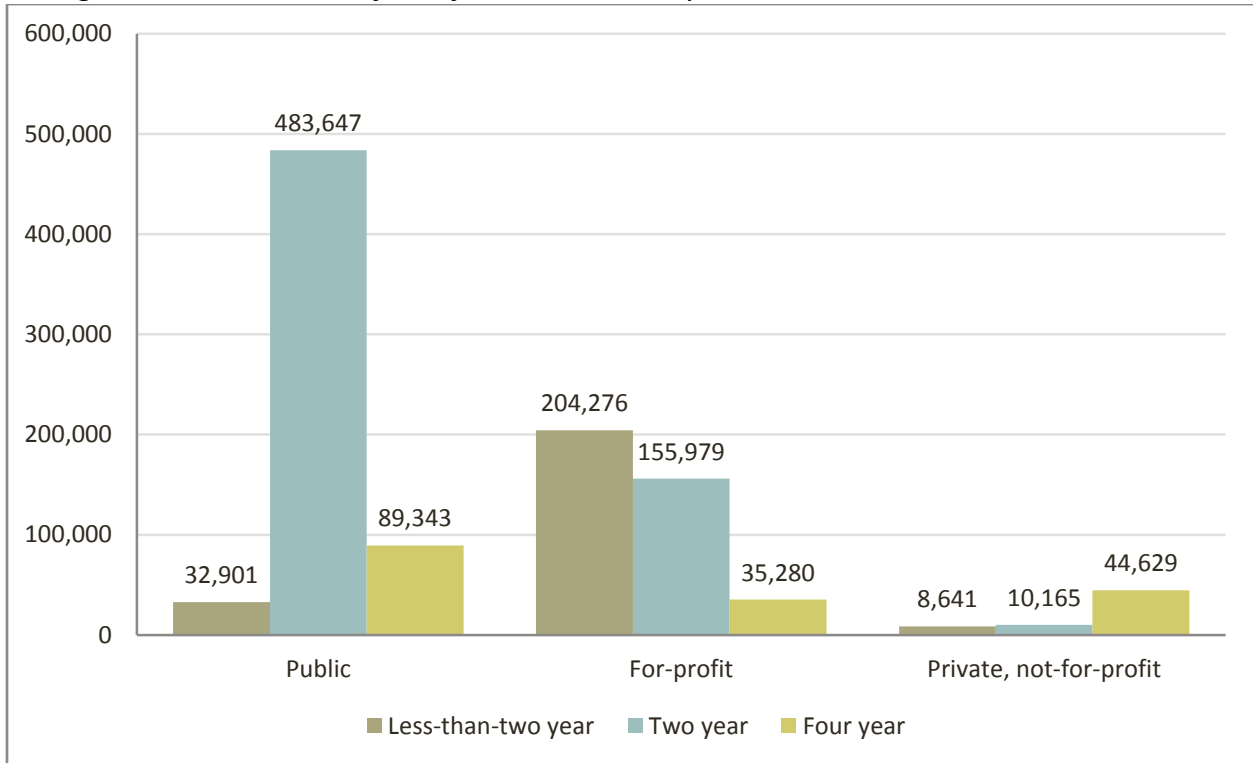
In response to the expanding availability of credentialing options, a team of researchers from the George Washington University's Institute for Public Policy, Southern Illinois University at Carbondale's Center for Workforce Development, and Workcred, a not-for-profit organization focused on improving the credentialing system, formed the Credential Transparency Initiative to develop a credential registry (CTI, n.d.; McIntire, 2015). The registry is being designed to provide interested students and other stakeholders with insight into the range and value of different credentials and how to access them.

CURRENT CERTIFICATE LANDSCAPE: IPEDS DATA ANALYSIS

*>> **Research Question 2:** How well does the IPEDS Completions survey capture the current landscape of eligible postsecondary certificate programs?*

According to the IPEDS Completions survey, approximately 1.1 million postsecondary certificates were awarded at Title IV institutions during the 2013-14 academic year, comprising 22.1 percent of all postsecondary awards. The majority were awarded at either public 2-year (45.4 percent) or for-profit institutions (37.1 percent). Public and private, not-for-profit four-year institutions awarded 8.4 percent and 4.2 percent of certificates, respectively.

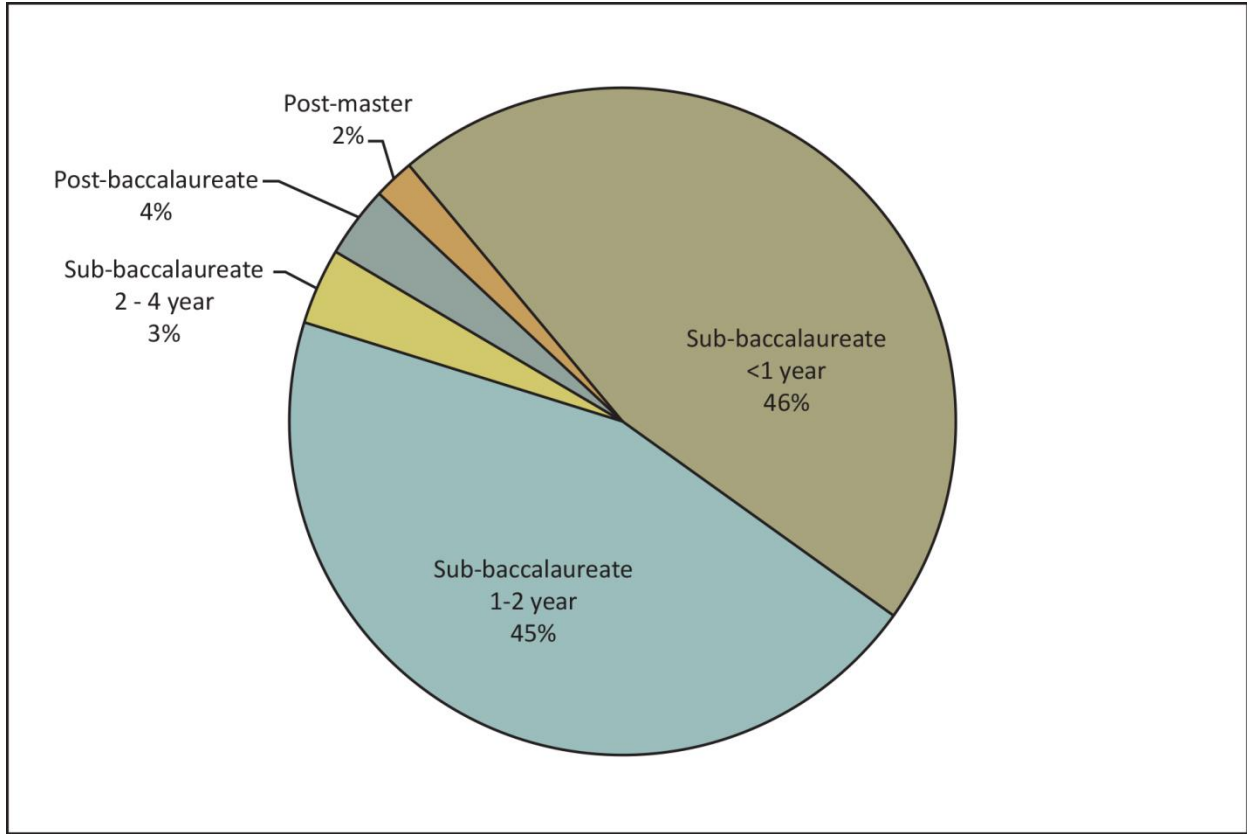
Figure 1. Total Number of Certificates Awarded by Institutional Sector and Level, 2013-14



Source: IPEDS Completions survey component, 2013-14, n = 5,928 institutions

Almost all certificates (94.6 percent) were awarded at the sub-baccalaureate level, with a relatively even split between less-than-one-year and one-to-two-year certificates (46.1 percent and 45.1 percent, respectively). Two-to-four-year sub-baccalaureate certificates comprised only 3.5 percent of all certificates awarded, and nearly all (98.8 percent) were awarded by Title IV-eligible institutions.

Figure 2. Total Number of Certificates Awarded by Certificate Level, 2013-14



Source: IPEDS Completions survey component, 2013-14

Table 1 lists examples of the most commonly awarded programs at each sub-baccalaureate level. There is some overlap between levels, for example Medical/Clinical Assistant certificates are commonly awarded in both less-than-one year and one-to-two year programs, Automobile/Automotive Mechanics Technology/Technician certificates are commonly awarded at both less-than-one-year and two-to-four year levels, and Cosmetology/Cosmetologist, General certificates are awarded at both one-to-two year and two-to-four-year levels.

Table 1. *Top Five Sub-baccalaureate Programs by Program Length*

Program Length	Top Five Sub-baccalaureate Programs
Less-than-one year programs	<ul style="list-style-type: none"> • Nurse/Nursing Assistant/Aide and Patient Care Assistant • Medical/Clinical Assistant • Truck and Bus Driver/Commercial Vehicle Operation • Emergency Medical Technology/Technician (EMT Paramedic) • Automobile/Automotive Mechanics Technology/Technician
One-to-two-year	<ul style="list-style-type: none"> • Cosmetology/Cosmetologist, General • Medical/Clinical Assistant • Licensed Practical/Vocational Nurse Training (LPN, LVN, Cert., Dipl, AAS) • Liberal Arts and Sciences/Liberal Studies • Dental Assisting/Assistant
Two-to-four-year	<ul style="list-style-type: none"> • Cosmetology/Cosmetologist, General • Automobile/Automotive Mechanics Technology/Technician • Nursing/Registered Nurse (RN, ASN, BSN, MSN) • Airframe Mechanics and Aircraft Maintenance Technology/Technician • Motorcycle Maintenance and Repair Technology/Technician

Source: IPEDS Completions survey component, 2013-14

2013-14 CERTIFICATES BY CIP DISCIPLINE

The following analysis examines 2013-14 certificate completion data at the two-, four-, and six-digit levels. At the two-digit CIP level, the broadest categories, Healthcare-related certificates accounted for the largest share of completions (35.6 percent), followed by Personal and Culinary Services (13.8 percent). Taken together, these two certificate categories comprised over half (51.5 percent) of all sub-baccalaureate certificates awarded, while Education certificates comprised the largest share of post-baccalaureate and post-master's level awards (39.4 percent).

At the more-specific four-digit CIP level, certificates were awarded at the highest numbers in Cosmetology, Practical/Vocational Nursing, Allied Health and Medical Assisting Services, Vehicle Maintenance and Repair Technologies, and Health and Medical Administrative Services. At the most-specific six-digit CIP level, certificates were awarded in the highest numbers in General Cosmetology, Medical/Clinical Assistant, Licensed Practical/Vocational Nurse Training, Nursing Assistant/Aide and Patient Care Assistant/Aide, and Automobile/Automotive Mechanics Technology/Technician. Table 2 below displays the top 10 producing programs at each level; additional detail can be found in Appendix D.

What is a CIP Code?

The Classification of Instructional Programs (CIP) is a system that allows individual programs of study at institutions to be classified into standardized, general categories. The National Center for Education Statistics developed the CIP system to help collect, organize, and report information for fields of study, such as the number of students who received awards in a given field of study for a given year. The CIP was introduced 1980 and has been revised four times since, in 1985, 1990, 2000, and most recently in 2010. It is organized in three levels: two-digit, four-digit, and six-digit, with the two-digit codes being the broadest categories, six-digit codes being the most detailed, and four-digit codes as an intermediate level. For example, Engineering programs of study fall under the two-digit code 14, which includes four-digit codes such as 14.09, Computer Engineering, which in turn, includes six-digit codes such as 14.092, Computer Hardware Engineering, and 14.093, Computer Software Engineering.

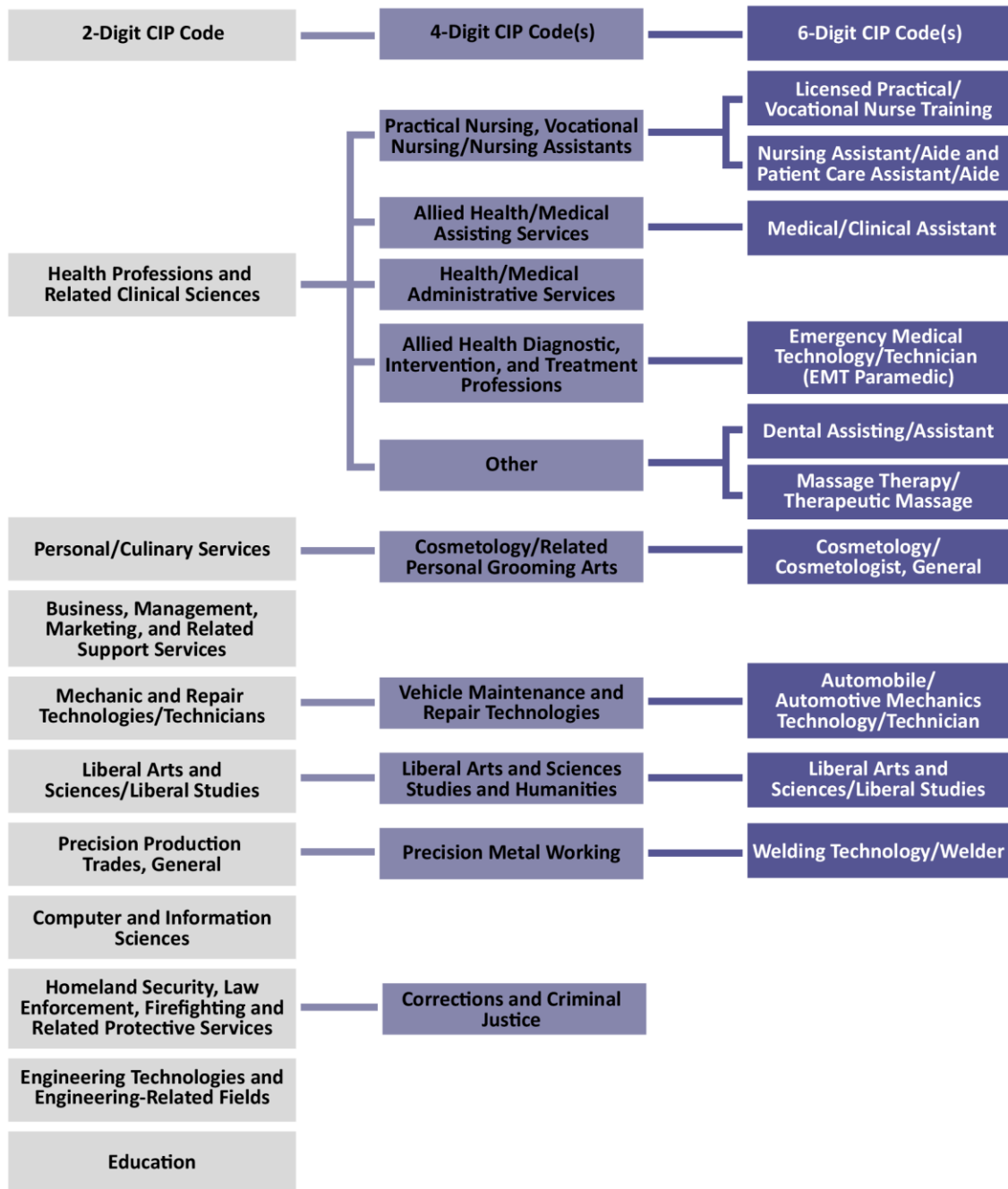
Table 2. *Number and Percentage of Certificates by Top Ten Two-, Four-, and Six-digit CIP Codes, 2013-14*

CIP Code	Certificate Program	Number Awarded	Percent of Total
Two-digit CIP Codes			
51	Health Professions and Related Clinical Sciences	379,343	35.6%
12	Personal and Culinary Services	147,299	13.8%
52	Business, Management, Marketing, and Related Support Services	87,144	8.2%
47	Mechanic and Repair Technologies/Technicians	85,933	8.1%
24	Liberal Arts and Sciences/Liberal Studies	39,996	3.8%
48	Precision Production Trades	38,163	3.6%
11	Computer and Information Sciences	36,552	3.4%
43	Homeland Security, Law Enforcement, Firefighting and Related Protective Services	35,269	3.3%
15	Engineering Technologies and Engineering-Related Fields	34,565	3.2%
13	Education	32,364	3.0%
Four-digit CIP Codes			
12.04	Cosmetology and Related Personal Grooming Arts	121,142	11.4%
51.39	Practical Nursing, Vocational Nursing and Nursing Assistants	106,585	10.0%
51.08	Allied Health and Medical Assisting Services	99,792	9.4%
47.06	Vehicle Maintenance and Repair Technologies	57,091	5.4%
51.07	Health and Medical Administrative Services	49,092	4.6%
24.01	Liberal Arts and Sciences Studies and Humanities	39,996	3.8%
51.09	Allied Health Diagnostic, Intervention, and Treatment Professions	37,559	3.5%
48.05	Precision Metal Working	37,133	3.5%
43.01	Corrections and Criminal Justice	26,871	2.5%
12.05	Culinary Arts and Related Services	25,080	2.4%
Six-digit CIP Codes			
12.0401	Cosmetology/Cosmetologist, General	81,549	7.7%
51.0801	Medical/Clinical Assistant	74,063	7.0%
51.3901	Licensed Practical/Vocational Nurse Training	51,237	4.8%
51.3902	Nursing Assistant/Aide and Patient Care Assistant/Aide	48,633	4.6%
47.0604	Automobile/Automotive Mechanics Technology/Technician	31,919	3.0%
48.0508	Welding Technology/Welder	28,545	2.7%
24.0101	Liberal Arts and Sciences/Liberal Studies	25,746	2.4%
51.0904	Emergency Medical Technology/Technician (EMT Paramedic)	22,632	2.1%
51.0601	Dental Assisting/Assistant	22,039	2.1%
51.3501	Massage Therapy/Therapeutic Massage	21,291	2.0%

Source: IPEDS Completions survey component, 2013-14

Some two-digit CIP codes vary widely in the number of sub-categories at the four- and six-digit levels. For example, Healthcare and Business certificates were awarded in 202 and 93 different six-digit sub-categories, respectively. Liberal Studies, however, comprised only four sub-categories at the six-digit level. Figure 3 demonstrates how the top ten-producing CIP codes at the two-, four-, and six-digit level relate to one another.

Figure 3. Relationship of Top Ten CIP Codes by Two-, Four-, and Six-digit Categories



NATIONAL TRENDS

The following analysis presents trends in certificates over the longest period for which data are available, from 1998-99 to 2013-14, a 15-year period. Data for intermediary years are available in Appendix D. It should also be noted that there were two CIP Code taxonomy updates during this time period (in 2000 and 2010) which in some cases may affect trends, where noted.

The total number of certificates awarded at Title IV institutions has grown from about 566,000 in 1998-99 to about 1.06 million in 2013-14, an 88.2 percent increase. Most of this growth in terms of number of certificates awarded occurred among one-to-two year and less-than-one year certificates (each close to a half-million in 2013-14), while the largest percentage increases occurred in the post-baccalaureate and post-master categories, by 250.6 percent and 132.8 percent, respectively. The increase in the number of three-to-four year certificates, however, lagged the other categories, with only a 22.1 percent increase over the 15-year period.

Table 3. *Total Number of Certificates and Percentage Change, 1998-99 to 2013-14, by Certificate Level*

	1998-99	2013-14	Percent Change
Total	565,860	1,064,861	88.2%
Sub-baccalaureate	546,749	1,007,649	84.3%
<1 year	260,766	490,422	88.1%
1-2 year	255,305	479,758	87.9%
2-4 year	30,678	37,469	22.1%
Post-Baccalaureate	10,795	37,849	250.6%
Post-Master	8,316	19,363	132.8%

Source: IPEDS Completions survey component, 1998-99, 2013-14

There were also noteworthy trends in certificates by institution type. Two-year public institutions accounted for more certificates than institutions in any other sector and level throughout the period, about 484,000 in 2013-14 – a 131.8 percent increase since 1998-99. Four-year public institutions experienced the greatest overall increase, from 23,965 to 89,343, or 272.8 percent. This may be due to the increase in community colleges expanding their offerings and shifting from two-year to four-year institutions, led by the example of Miami Dade College in Florida. It should be noted, however, that some states are not authorized to offer sub-baccalaureate certificates at four-year institutions. The only institutions to show a decrease of completions were less-than-two-year public institutions, at 23.2 percent. Over the last five years, less-than-two-year institutions in each sector saw a decline in certificate completions (see Appendix D).

Table 4. Total Number of Certificates and Percentage Change, 1998-99 to 2013-14, by Institution Type

	1998-99	2013-14	Percent Change
Total	565,860	1,064,861	88.2%
Public	275,482	605,891	119.9%
<2 year	42,863	32,901	-23.2%
2 year	208,654	483,647	131.8%
4 year	23,965	89,343	272.8%
Private, not-for-profit	37,225	63,435	70.4%
<2 year	5,785	8,641	49.4%
2 year	8,567	10,165	18.7%
4 year	22,873	44,629	95.1%
For-profit	171,479	395,535	130.7%
<2 year	94,397	204,276	116.4%
2 year	65,294	155,979	138.9%
4 year	11,788	35,280	199.3%

Source: IPEDS Completions survey component, 1998-99, 2013-14

By two-digit CIP code, Military Technologies and Applied Science showed the largest increase over the 15 year period, from three to 581 awards. This could reflect an increased need for skilled workers in this field, or given the small base, the sharp increase may indicate that institutions were previously reporting these awards to a different category. Noteworthy in Table 5 are the larger programs of study that showed high rates of growth. Liberal Arts and Sciences/Liberal Studies, for example, grew by 2,912 percent to 39,996. See Appendix D for a complete list and additional detail by intermediary year and four-digit CIP code.

Table 5. Percentage Change in Certificates by Two-Digit CIP Code, Top Ten Increases, 1998-99 to 2013-14

Two-Digit CIP Program	1998-99	2013-14	15-Year Percentage Change
TOTAL	565,860	1,064,861	88.2%
Military Technologies and Applied Sciences	3	581	19,266.7%
Liberal Arts and Sciences/Liberal Studies	1,328	39,996	2,911.7%
Architecture	58	523	801.7%
Science Technologies/Technicians	276	1,691	512.7%
Biology/Biological Sciences	339	1,705	402.9%
Parks, Recreation and Leisure Studies	749	3,366	349.4%
Social Sciences	767	3,134	308.6%
Mathematics	128	490	282.8%
Engineering	760	2,814	270.3%
English Language and Literature	687	2,506	264.8%

Source: IPEDS Completions survey component, 1998-99, 2013-14

Drilling down to the most granular CIP code category, the six-digit level, reveals changes at the institutional level by individual program. Table 6 below reports for programs with a minimum of 100 certificates awarded during the base year, 1998-99 (many programs with a large percentage growth over the 15-year period had a small base number of certificates awarded of less than 10). Liberal Arts and Sciences/Liberal Studies experienced the largest percentage increase in number of certificates awarded over the 15 years (a 7,846 percent increase), followed by Cosmetology/Cosmetologist, General (a 5,128 percent increase), Criminal Justice/Safety Studies (a 1,929 percent increase), Marine Science/Merchant Marine Officer (a 1,586 percent increase), and Liberal Arts and Sciences, General Studies and Humanities, Other (a 1,353 percent increase). It should be noted that some categories, such as Cosmetology, changed during the period under consideration, which may have inflated these observed increases. Table 6a displays the program fields with the largest increase in the number of certificates awarded.

Table 6. Number of Certificates Awarded, and Percentage Change in Awards, 25 Programs with Percentage Largest Increase*, by Six-Digit CIP Code: 1998-99 and 2013-14

CIP Code	Program Name	Number of Certificates Awarded		Percentage Change in Number of Certificates Awarded, 1998-99 to 2013-14
		1998-99	2013-14	
24.0101	Liberal Arts and Sciences/Liberal Studies	324	25,746	7,846%
12.0401	Cosmetology/Cosmetologist, General	1,560	81,549	5,128%
43.0104	Criminal Justice/Safety Studies	197	3,997	1,929%
49.0309	Marine Science/Merchant Marine Officer	364	6,136	1,586%
24.0199	Liberal Arts and Sciences, General Studies and Humanities, Other	547	7,947	1,353%
24.0102	General Studies	442	6,221	1,307%
12.0501	Baking and Pastry Arts/Baker/Pastry Chef	495	5,463	1,004%
12.0505	Food Preparation/Professional Cooking/Kitchen Assistant	152	1,546	917%
13.0301	Curriculum and Instruction	217	2,040	840%
49.0202	Construction/Heavy Equipment/Earthmoving Equipment Operation	187	1,575	742%
52.0701	Entrepreneurship/Entrepreneurial Studies	268	1,825	581%
46.0303	Lineworker	182	1,213	566%
12.0504	Restaurant, Culinary, and Catering Management/Manager	152	907	497%
51.0808	Veterinary/Animal Health Technology/Technician and Veterinary Assistant	408	2,419	493%
51.0805	Pharmacy Technician/Assistant	2,577	14,803	474%
23.9999	English Language and Literature/Letters, Other	154	883	473%
13.1299	Teacher Education and Professional Development, Specific Levels and Methods, Other	293	1,664	468%
52.0299	Business Administration, Management and Operations, Other	286	1,473	415%
52.0203	Logistics, Materials, and Supply Chain Management	167	848	408%
52.0201	Business Administration and Management, General	3,445	16,383	376%
15.0499	Electromechanical and Instrumentation and Maintenance Technologies/Technicians	139	642	362%
46.0301	Electrical and Power Transmission Installation/Installer, General	216	953	341%
52.1101	International Business/Trade/Commerce	200	869	335%
13.1001	Special Education and Teaching, General	275	1,181	329%
51.3501	Massage Therapy/Therapeutic Massage	5,009	21,291	325%

*Programs with a minimum of 100 certificates awarded during 1998-99.

Source: IPEDS Completions survey component, 1998-99, 2013-14

Table 6a. Number of Certificates Awarded, and Increase in Awards, 25 Programs with Largest Magnitude of Increase*, by Six-Digit CIP Code: 1998-99 and 2013-14

CIP Code	Program Name	Number of Certificates Awarded		Increase in Number of Certificates
		1998-99	2013-14	Awarded, 1998-99 to 2013-14
12.0401	Cosmetology/Cosmetologist, General	1,560	81,549	79,989
51.0801	Medical/Clinical Assistant	30,921	74,063	43,142
51.3902	Nursing Assistant/Aide and Patient Care Assistant/Aide	14,140	48,633	34,493
24.0101	Liberal Arts and Sciences/Liberal Studies	324	25,746	25,422
51.3901	Licensed Practical/Vocational Nurse Training	27,861	51,237	23,376
48.0508	Welding Technology/Welder	7,017	28,545	21,528
47.0604	Automobile/Automotive Mechanics Technology/Technician	12,279	31,919	19,640
51.3501	Massage Therapy/Therapeutic Massage	5,009	21,291	16,282
51.0601	Dental Assisting/Assistant	8,576	22,039	13,463
52.0201	Business Administration and Management, General	3,445	16,383	12,938
51.0805	Pharmacy Technician/Assistant	2,577	14,803	12,226
51.0904	Emergency Medical Technology/Technician (EMT Paramedic)	11,773	22,632	10,859
43.0107	Criminal Justice/Police Science	6,622	16,529	9,907
47.0201	Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/	7,342	16,863	9,521
19.0709	Child Care Provider/Assistant	3,122	12,568	9,446
46.0302	Electrician	4,044	12,788	8,744
12.0503	Culinary Arts/Chef Training	3,739	12,448	8,709
49.0205	Truck and Bus Driver/Commercial Vehicle Operator and Instructor	10,547	18,356	7,809
52.0302	Accounting Technology/Technician and Bookkeeping	4,691	12,205	7,514
24.0199	Liberal Arts and Sciences, General Studies and Humanities, Other	547	7,947	7,400
24.0102	General Studies	442	6,221	5,779
49.0309	Marine Science/Merchant Marine Officer	364	6,136	5,772
12.0402	Barbering/Barber	2,206	7,601	5,395
50.0701	Art/Art Studies, General	60	5,161	5,101
12.0501	Baking and Pastry Arts/Baker/Pastry Chef	495	5,463	4,968

Source: IPEDS Completions survey component, 1998-99, 2013-14

STATE/INSTITUTION TRENDS

Coffey conducted nine interviews with representatives of state agencies and postsecondary institutions, to learn more about the certificate landscape and how well that landscape is reflected by IPEDS Completions data.

Below are recent trends in certificate programs identified by state and institution representatives, associated policy context, and resulting challenges (related recommendations can be found in the following section):

- **Short-term certificate increases:** According to interviewees, many community colleges have increased the number of certificate programs they offer and report an increase in certificate enrollments over the last ten years, particularly in the shorter-term (less-than-one and one-to-two year) sub-baccalaureate categories. Some just recently began offering less-than-one-year certificates.
 - A representative from one state noted that short-term certificates are a frequent topic of discussion and source of major tension and debate within the community and technical college board. Performance funding states, or those that tie funding to completions and other success measures, have incentives to increase short-term certificate completions, and the reporting of short-term certificates often overinflates the graduation and completion rates.
 - Academic affairs researchers at one state agency found that short-term certificates did not necessarily help students get a job. In some fields, it could take up to 10 micro-level certificates to get a job. The numbers of certificates reported to IPEDS Completions may therefore be misleading.
 - In another state, the board of regents would like to impose a minimum number of credits for reporting, although the two-year colleges are opposed to a minimum.
- **Stacked certificates:** Interviewees also report that many institutions have begun offering, or are currently developing, some version of stacked credentials. There seem to be two emerging types of stacked certificates – those that lead to a higher degree, and those that are broken up into micro-credentials by specific skill set.
 - Several community colleges are breaking up certificate programs into shorter-term, skill-specific certificates, often under 12 credits. Students can receive several in one year.
 - Other institutions offer certificates that “roll up” to associate’s degrees, and consider this to be a stacked credential.
 - At a for-profit college, all certificates are related to degree programs so they can feed into associate’s programs, or master’s programs at the graduate level.

Students complete technical coursework in the certificate program with the option to subsequently enroll in the degree program. In some cases, students are enrolled in a master's program and realize they completed certificate coursework along the way, which they can then complete paperwork to receive.

- **Industry micro-credentials:** Some state community/technical college systems report industry certifications that are as short as one credit hour, or one week to complete. Students can receive multiple certificates in one semester, and these are often counted for IPEDS Completions. The Completions survey instructions state to exclude industry credentials if such an award is provided by an outside entity.
- **Duplications:** Short-term, stacked, and industry credentials can all result in multiple certificates being reported for individual students. One state representative felt these data are misleading, particularly in the way they are used by national reports to boost completion rates. The respondent has noticed a growing difference between the number of awards, and the number of completers. In some cases, a student could get a certificate for each additional class he or she takes in addition to the core coursework in a single program.
- **Transfer certificates:** According to interviewees, it has become increasingly common for colleges to award two-to-four year transfer certificates, typically classified as Liberal Arts or General Education.
 - At one community college with multiple campuses, the 30 credit hour, one-to-two year general education core certificate has become the largest certificate program in the state. The state passed legislation to make it mandatory for transfer, at any public institution in the state. Students do not sign up for the transfer certificate, but rather earn it along the way towards another degree, such as an associate's. Currently, this certificate (which is not Title IV eligible) is grouped together with other one-to-two year certificates as a technical award.
 - One state community college system awards over 7,000 transfer certificates per year. Students can receive it along with an associate's degree.
 - The transfer certificate is categorized at other institutions as a career certificate, but many feel having a separate category would be helpful.
 - It is interesting to note that some states are not authorized to offer academic certificates, including transfer. They can only offer career-specific certificates.
- **Retroactive certificates:** Interviewees report that many states and institutions, are reviewing transcripts to retroactively award certificates and boost completion rates, in many cases resulting from participation in national completion initiatives such as *Achieving the Dream*.
 - North Carolina, an Achieving the Dream state, has seen a large increase in certificate completions due to a statewide *Certificate Completion Campaign*,

whereby institutions analyze transcript data to determine if students accumulated enough credits towards a certificate, which is then awarded retroactively. Colleges go back several years to look at transcript data and report awards to IPEDS for the most recent year. In most cases, students did not enroll in the certificate program for which they are receiving the award. They could have left the institution without any degree or with an associate's in the same program as the certificate. In the latter case, the state considers this to be a stacking credential. This initiative has led to large increases – roughly 12,000 certificates at one college over the last five years since the initiative began. The data are also reported to national postsecondary data collection initiatives such as *Achieving the Dream* and the Bill & Melinda Gates Foundation's *Completion by Design*.

- Often, a community college will look for credits on a transcript to see if a student accumulated enough for a certificate, but the college does not always notify the student of the credential it is reporting to IPEDS. In one state, a representative noted that at least 70 percent of students are unaware they received shorter-term certificates.

PROGRAM-LEVEL ANALYSIS

A follow-up scan of institution program websites was conducted to learn more about individual certificate programs that showed recent increases (see the detailed methodology in Appendix A for additional information about the website scans).

Transfer Certificates

One program that continually emerged across various CIP-code level analyses is Liberal Arts. A closer investigation at a sample of academic program websites of institutions reporting Liberal Arts certificate completions reveals that many of these programs are in fact two-to-four-year transfer certificates of General Studies, not Liberal Arts programs of study. This agrees with the trend identified through state and institutional informational interviews. This topic merits additional exploration and, potentially, the addition of a transfer-specific CIP code or an additional certificate “type” classification (see Recommendations).

General/Other Certificates

One overarching trend in certificates by CIP code is the emerging prevalence of academically-oriented (rather than career-specific) certificate programs, often categorized in “other” or “general” six-digit categories, for example Biology/Biological Sciences, General. A scan of institutions' program websites, however, revealed that the majority of these certificates being

reported as general biology are in fact bio-technology and should be reported to the six-digit code Biology Technician/Biotechnology Laboratory Technician.

Another six-digit CIP code investigated at the institution level, “English Language and Literature/Letters, Other,” revealed that this category is primarily being used to report English as a Second Language (ESL) certificate completions. The number of certificates reported in this category, 1,018, is not significant; however, the use of IPEDS to report ESL certificates should be further investigated. While the institutional website descriptions of these programs stress the career-oriented nature of ESL and the skills foreign-language speakers will gain to help them excel in the workplace, the IPEDS fall enrollment survey specifically instructs institutions to exclude students enrolled exclusively in ESL coursework.⁴ The Completions survey instructions do not mention ESL specifically, but do list “basic skills” programs unrelated to academic or occupational/vocational programs as exclusions. As with Liberal Arts, should NCES wish to include ESL certificates in IPEDS, an additional CIP code or overarching certificate category may need to be considered (see Recommendations).

RECOMMENDATIONS

>> Research Question 3: If the IPEDS Completions survey does not reflect the current postsecondary landscape, how can it be improved?

The IPEDS Completions survey component generally seems to be effective at capturing traditionally structured career-oriented certificate programs, which serve as a reflection of economic demands. However, as seen through the informational interviews and program-level analysis, institutions seem to face challenges when attempting to categorize emerging types of certificates, such as stacked credentials and transfer certificates. Many of these emerging certificate programs fall under the less-than-one-year certificate program classification on the Completions survey, which may lead to inaccurate reporting of data. Not only do the short-term certificate Completions data represent different types of certificates, many also are duplications for students who can receive several sub-awards in a single certificate program.

Suggestions to address the above mentioned inconsistencies and improve the reflection of the current landscape can be found below. Given the exploratory nature of this report, further research should be conducted to consider the options presented below. It is not recommended that all the changes be made; in fact, where noted, some restrictions such as limiting certificate reporting to Title IV programs would make other categorical recommendations inapplicable.

⁴ [2016-17 IPEDS Fall Enrollment Full Instructions \(https://surveys.nces.ed.gov/ipeds/VisInstructions.aspx?survey=6&id=30074&show=all\)](https://surveys.nces.ed.gov/ipeds/VisInstructions.aspx?survey=6&id=30074&show=all)

These suggestions should be considered within the context, limitations, and implications of institutional, state, and federal-level policy and programming.

CERTIFICATE DEFINITION

The current certificate definition established by NCES is “A formal award certifying the satisfactory completion of a postsecondary education program.”⁵ The current NCES definition does not specify the length of certificates, nor does it state that certificate programs must be career-oriented. NCES may want to consider the adoption of elements used by external definitions of certificates, for example:

- GEMEnA: “A credential awarded by an 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., 1 day) are not in the definitional scope for educational certificates.”
- CEW: “Recognition of completion of a course of study based on a specific field, usually associated with a limited set of occupations.”

The Completions survey instructions set forth additional parameters to being a formal award. For example, honorary awards and certificates of merit, and nonacademic or vocational awards are to be excluded. Given the increasingly common practice of awarding certificates retroactively, NCES may also wish to specify that students be enrolled in a program to receive the award, or at least be informed of the award, if it is awarded retroactively. A certificate cannot be beneficial to a student if he or she is unaware of the award.

TITLE IV ELIGIBILITY

The completions survey does not specify that programs need to be Title IV eligible. The majority of state and institution representatives we interviewed suggested that only Title IV-eligible programs be reported to the Completions survey. An institution is Title IV eligible if it offers programs that are “at least one academic year in duration that...prepares students for gainful employment in a recognized occupation.”⁶ Additional guidelines are below:

⁵ [2016-17 IPEDS Glossary \(https://surveys.nces.ed.gov/ipeds/VisGlossaryAll.aspx\)](https://surveys.nces.ed.gov/ipeds/VisGlossaryAll.aspx)

⁶ [Information for Financial Aid Professionals \(IFAP\) 2004-05 Federal Student Aid Handbook, Volume 2, Chapter 4 – Program Eligibility \(https://ifap.ed.gov/sfahandbooks/attachments/0405Vol2Ch4ProgramEligibility.pdf\)](https://ifap.ed.gov/sfahandbooks/attachments/0405Vol2Ch4ProgramEligibility.pdf)

Table 7. Title IV Eligibility Guidelines

Program Type	Minimum Clock/Semester/Quarter Hours	Minimum Length	Entrance Requirements	Types of Financial Aid Eligible	Qualitative Requirements
Undergraduate	600 / 16 / 24	15 weeks	No associate's degree	Any	N/A
Graduate	300 / 8 / 12	10 weeks	At least associate's degree	Any	N/A
Short-term program	300-600	10 weeks	No associate's degree	FFEL/Direct Loans only	See below*

* Short-term programs must: Meet minimum completion and placement rates; Have been in existence at least one year; Not be more than 50 percent longer than the minimum training period required by the state or federal agency for the occupation (if any).

Introducing this program-level Title IV requirement to the Completions survey would limit data to career-oriented certificate programs of a minimum length. It may be worth further restricting the Title IV definition by only allowing Pell-eligible programs to be reported, depending on the types of programs that NCES would like to include. This will require making decisions about the relative value of certificates based on student outcomes, program quality measures, or other factors. It should be noted that ESL and teacher preparation programs, both commonly awarded certificates, are exceptions to the guidelines above, provided other requirements are met. For example, students enrolled in an ESL program are eligible for Pell Grants only, if the program leads to a degree or other credential.⁷

CERTIFICATE TYPOLOGY

IPEDS may also want to consider adopting a typology of certificates to enhance analysis of data users. Based on the collective findings of the literature review, data analysis, program-level analysis, and informational interviews, IPEDS may wish to consider the following elements in a certificate typology. *Note:* the categories below are suggestions to be considered in conjunction with other suggested changes. Some program types, as noted, will not be included should NCES decide to limit certificate completions to Title IV eligible programs.

- Certificate type or structure:
 - Traditional Certificate – Current definition of certificate (or updated, per suggestions above).

⁷ Ibid

- Stacked Certificate* – Sub-certificate that provides a specific skill-set in a sequence of a broader certificate program.
 - Industry Credential* – Certificate provided by outside entity, sometimes referred to as “certification” or “license” as opposed to “certificate”; currently excluded by IPEDS Completions survey but often reported and considered important by many community colleges to local economies.⁸
 - Diploma – One community college indicated offering a Diploma, which is in between a certificate and associate’s degree in length.
 - Noncredit* – One institution suggested that noncredit certificates be permissible under a separate category.
- Certificate content, function or purpose:
 - Career – the most traditional form of certificate, preparing students with occupational-specific skill-sets (health, cosmetology, automotive, business, etc.). Career-oriented certificates make up the majority of completions.
 - Academic* – general/broad subject-matter, not specific to job skills, currently classified under “general” and “other” categories (i.e., social studies, mathematics).
 - Transfer* – certificates granted by two-year institutions to indicate readiness for four-year study; currently excluded by Completions survey instructions but typically classified by reporting entities as liberal arts or general studies.
 - Basic Skills (including ESL) – certificates awarded to prepare students for basic skills, including English for non-native speakers; currently excluded but commonly reported.

** This category will be excluded should IPEDS limit certificate completions to Title IV eligible programs.*

It should be noted that several of the categories above currently fall under the types of awards to exclude as specified in the Completions survey instructions; however, institutions are still reporting them. Since institutions consider these types of awards to be important, and since

⁸ GEMEnA defines a professional certification or license as one that demonstrates “you are qualified to perform a specific job and includes things like Licensed Realtor, Certified Medical Assistant, Certified Teacher, or an IT certification.” This does “not include business licenses, such as a liquor license or vending license.”

they are difficult to restrict from being reported, having a separate category in which to report these types of certificates would be recommended.

NCES may wish to explore current state classifications used to categorize certificate programs. For example, one state offers three different categories of certificates within those that are credit-bearing: credit certificate programs, advance technical, and career technical programs.

CIP CODE CHANGES

Alternative to a typology, and given that academic programs do not represent a large share of certificates but rather are often misclassified career programs, IPEDS may wish to consider revising CIP codes to better categorize certificate programs.

The institution and state representatives interviewed expressed satisfaction with the current CIP codes; however, some institutions seem to misclassify their programs into “general” or “other” categories as noted above. This could be due to a lack of understanding of CIP codes by faculty, or a lack of understanding of programs by data reviewers. In some cases, institutions approve state data submissions, and in other cases, state systems approve data submitted by institutions. One institution noted that its Institutional Research (IR) staff work with faculty to explain the CIP code system.

Below are recommended CIP code changes based on the findings of this research:

- Create Transfer and ESL CIP codes to correctly classify these programs.
- Eliminate six-digit “other” and four-digit “general” CIP code categories, as institutions often use these as the catch-all default for programs such as bio-technology and digital arts, which should be classified under specific designations.
- Review other sub-categories that cause confusion and inconsistencies and consider condensing (i.e., “graphic art,” “digital art”).

It is recommended that IPEDS conduct a more comprehensive review of certificate completions reported falling under “general” and “other” categories for misclassifications, or potentially, the need for additional, more specific CIP codes.

CERTIFICATE PROGRAM LENGTH

IPEDS currently classifies certificate programs based on award level (sub-baccalaureate, post-baccalaureate, post-master’s), length of program at the sub-baccalaureate level (less-than-one academic year, more-than-one but less-than-two years, and two-to-four years). The

Completions survey instructions provide the following guidance to help institutions classify certificate program length:

Table 8. IPEDS Completions Survey Definitions for Certificate Program Length⁹

Length	Contact/Clock Hours	Semester/Trimester Hours	Quarter Hours
<1 year	<900	<30	<45
1-2 years	900-1,800	30-60	45-90
2-4 years	1,800+	60+	90+

It should be noted that IPEDS does not currently impose a minimum credit or hour requirement for less-than-one-year certificates. The 2012 NPEC report found that this lack of a minimum requirement led to some confusion among institution representatives, some of whom did not report certificates with less than 12 credit hours, and others that did – some with as few as three credits per certificate program (Sykes, 2012).

Classifying Less-than-one-year Programs

Currently, the less-than-one-year programs seem to be a catch-all for stackable and micro industry credentials. IPEDS may want to consider the adoption of a minimum credit hour requirement to report certificate programs, and/or the recognition of emerging alternative credentialing awards such as micro-badging and stackable credentials, within the “less-than-one-year” length category. IPEDS may wish to collaborate with EQIP and/or GEMEnA to develop these new classifications of emerging programs. As an alternative, IPEDS could continue to allow short-term certificates but place different weights on “micro” credentials, or those that are part of a stacked program.

Below are several alternatives to the current classification system for less-than-one year certificates, some recommended by state and institutional representatives:

- **Impose Credit Minimum:** One state imposed a minimum of 20 credit hours for reporting of certificate programs to the state completion reporting and the IPEDS Graduation Rate survey, based on a differential in wage outcomes of students graduating from programs under that threshold. This change resulted in a 40 percent decrease in the number of certificates reported. The state still reports certificates in the shortest category (0-19 credits) to the IPEDS Completions survey. Another state defines short-term certificates as at least 15 credit hours, or three classes.

⁹ [2016-17 Instructions for the IPEDS Completions Component](https://surveys.nces.ed.gov/ipeds/VisInstructions.aspx?survey=10&id=30080&show=all)
<https://surveys.nces.ed.gov/ipeds/VisInstructions.aspx?survey=10&id=30080&show=all>

- **Eliminate Year Parameters:** One institution representative suggested moving away from year as the length parameter, to only using credit or contact hours to define length. The length category is fairly arbitrary, since the amount of time that it takes a student to complete a program varies widely based on enrollment intensity, particularly with certificate programs where a large number of students may be working adults.
- **Add Short-term Categories:** Rather than impose a minimum, IPEDS could keep the shortest programs but add categories within less-than-one-year programs which currently represent a wide range of lengths, including micro and stacked credentials.
 - A research-based theory should be used to justify where the splits are made; one state representative recommended identifying thresholds based on research into labor market outcomes of students with credentials of varying lengths.
 - Others cautioned this may be difficult to do given that outcomes vary by field; 15 credits in a technical field such as computer programming can produce greater outcomes than in a less specialized field.
 - A state agency representative also expressed concern for using economic indicators to classify less-than-one year certificates, since these credentials may benefit students personally, beyond financial indicators.
- **Exclude Specific Programs:** One institution representative noted that while Certificate definitions and instructions have improved over the last few years, they could still be more specific about what programs should or should not be included. For example, the current instructions specify to exclude “informal awards such as certificates of merit completion, attendance, or transfer.” However, it does not define these terms or mention certificates of proficiency or achievement, which should also be defined to alleviate some confusion faced by institutions about which types of certificates to include.
- **Weight Short-Term Programs:** If institutions have a way to classify short-term programs as micro or stacked credentials, IPEDS may want to consider weighting these differently than longer-term certificates in calculating the total count of certificates. In particular, programs cited by interviewees that are as few as one course or three credits should not be counted the same as those that are 24 credits. Further examination of program requirements at the institution level can help determine thresholds for weight categories. For example, NCES may find that programs under 12 credits do not hold the same value as those that are 12 credits or higher.

- **Only Report Completed Certificate Sequence:** Some suggested only reporting the stacked certificate once all components are completed, rather than reporting each individual sub-certificate, particularly when the entire sequence is less than one year in duration.

In weighing the various options presented above for defining and categorizing certificate completions, NCES will also need to consider future data reporting needs, particularly for making longitudinal comparisons. Restricting certificates to Title IV programs, imposing a minimum credit hour, or introducing a weight for short programs will greatly reduce the total number of certificates reported each year. Data users will need to use caution in making comparisons to previous years' data, when certification completions were less restricted.

CONCLUSIONS

This research set out to identify trends in the postsecondary certificate landscape and assess the extent to which the IPEDS Completions survey data accurately reflect those trends. Information gathered and analyzed through a literature review, data analysis, informational interviews, and program scans reveals a complex and changing picture of the certificate landscape. While certificates may be thought of as occupational/vocational in nature, and often are, many new types of certificates are emerging that are more academic in nature. Most notably, the transfer certificates, reported as Liberal Arts or General Education, should encourage discussion among stakeholders about the purpose and classification of postsecondary certificate programs. In addition, the emergence and varying definitions of stacked credentials should be taken into account in discussions around any proposed typology or length definition changes to certificate programs in IPEDS. Finally, the duplication of micro-credentials and retroactive awarding of certificates without students' knowledge should be further examined and addressed through updated definitions and survey instructions. Due to the way data are used to report on national completion goals, further revisions to the survey component should be made taking into careful consideration programmatic trends and ultimately, the relative student gains realized by each reported completion.

APPENDIX A. METHODOLOGY

This report uses both qualitative and quantitative data sources to determine whether existing IPEDS definitions and classification system are appropriate or would benefit from any changes.

- **Review of the literature:** U.S. Department of Education librarians provided Coffey with an extensive list of research publications relevant to postsecondary certificates, which provide information about the current landscape of certificates, trends in certificates over recent years, and developments in data collection systems pertaining to certificates.
- **Data analysis:** Coffey analyzed data from the IPEDS Completions survey: 1) for the most recent academic year available (2013-14) by Classification of Instructional Program (CIP code), institution type (level and sector), and award level; and, 2) longitudinally, to identify trends over time overall and by CIP code, institution type, and award level.
- **Informational interviews:** To further examine the certificate program landscape, Coffey conducted nine informational interviews with: 1) representatives of higher education organizations (including state agencies) and experts in the field of postsecondary certificate programs; and, 2) representatives of IPEDS institutions awarding large numbers of certificates. The purpose of these interviews was to gain a richer understanding of the trends in the certificate landscape, provide local context for the IPEDS data, and to learn more about the content, objectives, and data reporting of certificate programs at the institutional level.
- **Program Scan:** Coffey conducted a follow-up program scan through institutional websites to learn more about certificate programs commonly and increasingly reported through IPEDS. Information collected through the scan included credit hours, program name, course content, and objective. To perform the website scans, Coffey ran data from IPEDS listing specific institutions that reported completions for a particular CIP code. Coffey then visited the program offerings corresponding to the CIP code reported, where it was able to obtain specific information about the program reported.

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APPENDIX C. INTERVIEW PROTOCOLS

NPEC Certificates Informational Interview Protocol – Associations/Experts

Prepared by Coffey Consulting; last updated 07.06.2016

Introduction

Thank you for taking the time to speak with us today. Coffey Consulting is conducting this research on behalf of the U.S. Department of Education's National Postsecondary Education Cooperative, or NPEC, to assess the current landscape of certificates and how well this landscape is reflected in IPEDS. We would like to learn more about today's certificate programs based on your knowledge and expertise in the field. We will not name any individual respondents without permission in the final report.

Name:

Position:

Organization:

- Can you describe your work/your organization's work with certificate programs?
- What do you feel is the primary purpose of certificate programs?
 - Do certificate offerings serve multiple purposes? Please describe.
 - What do you think *should* be the primary purpose of certificate programs?
- What trends have you seen with certificate offerings over the last (5, 10, 15) years?
 - In your sector, have you seen an increase or decrease in certificate offerings? Please describe.
 - If yes: In which specific fields?
 - Have you seen certificate programs change in other ways, such as length, quality, or cost?
 - Do you think these trends are reflective of broader shifts in the higher education landscape? Please describe.
- To the best of your knowledge, is IPEDS accurately capturing/representing Certificate programs?
 - If not, what could IPEDS do differently?

- Are there any certificate programs that you know of that IPEDS is currently excluding?
 - If yes, which programs would you add?
- Are there any certificate programs that IPEDS is currently collecting information on that you feel do not belong in IPEDS?
 - If yes, why?
- In your opinion, what should be the minimum requirements of a certificate program to be included in IPEDS – for example, number of credits/hours? Other?
- Do you think the current categorization of certificate programs (<1 year, 1-3 year, 4 year, post-baccalaureate) is adequate?
- Do you think this classification could be improved upon to better reflect the current certificate program landscape?
 - If yes, how?

Thank you for taking the time to share your insights and knowledge; your responses will help inform this important work. May we contact you with follow-up questions if needed? We will keep you posted about our progress on the report. In the meantime please contact me with any questions or additional information you wish to share.

Certificates Informational Interview Protocol – IPEDS Institutions

Prepared by Coffey Consulting; last updated 07.06.2016

Introduction

Thank you for taking the time to speak with us today. Coffey Consulting is conducting this research on behalf of the U.S. Department of Education's National Postsecondary Education Cooperative, or NPEC, to assess the current landscape of postsecondary certificate programs, and how well this landscape is reflected in the NCES postsecondary data collection system, The Integrated Postsecondary Education Data System (IPEDS). We would like to learn more about your institution's largest certificate program, any changes you have seen over recent years, and how you collect and report information about the program. We will not name any individual respondents without permission in the final report.

Name:

Position:

Institution:

Program Overview

- Please describe your largest certificate program.
- How long has the program been in place?
- What is the primary purpose of this program?
 - Does it prepare students for a specific career field?
 - Are students expected to pursue additional certificates/degrees to be prepared for this field? (If so, what)?
 - Does this program serve another purpose other than career preparation (i.e., transfer)?
- What would you consider to be comparable/competitive certificate programs at other institutions?

Program Reporting

- IPEDS institutions:
 - Do you report on certificate programs internally using the same classification as IPEDS (<1 year, 1-2 year, 4 year, post-bac, etc.)?
 - If not, what categories do you use? How is a certificate program defined internally for data collection purposes?

- Do you report on certificate programs to any entities outside IPEDS (state agencies, foundation initiatives, etc.)?

If yes: Do you use the same classification scheme or a different one? If other, please describe.

Program components (if unavailable through IPEDS or institution website)

- [if program description unavailable online, request description and ask the following:]
 - What are the program objectives?
 - Can you provide a listing of the courses required? (if unavailable online)
- What are the prerequisites, if any?
- What are the requirements to complete this program? (GPA, other)

Program Outcomes

- Do you know approximately what percentage of completers pursue a career in this field?
- Do you know approximately what percentage of completers are hired in this field after graduation?
- Are completers restricted to using their certificate in your state/a certain geographical area?

Program Changes

- Has the program changed at all since its initial offering? If so, how?
- Has the program become more/less popular in the last (few/xx) years?
 - If yes: To what do you attribute this increase/decrease?

Thank you for taking the time to share your insights and knowledge; your responses will help inform this important work. May we contact you with follow-up questions if needed? In the meantime please contact me with any questions or additional information you wish to share.

APPENDIX D. DETAILED TABLES

Table A1. *Certificate Completions by Two-Digit CIP Code and Institutional Sector, 2013-14*

CIP Code Value	CIP Code Name	TOTAL	Institutional Sector								
			Public			Private, not-for-profit			For-profit		
			<2 year	2 year	4 year	<2 year	2 year	4 year	<2 year	2 year	4 year
		1,064,861	32,901	483,647	89,343	8,641	10,165	44,629	204,276	155,979	35,280
51	Health Professions and Related Clinical Sciences	379,343	16,863	141,226	19,204	3,626	5,981	9,713	74,394	87,455	20,881
12	Personal and Culinary Services	147,299	2,661	20,037	1,468	485	789	499	90,509	28,185	2,666
52	Business, Management, Marketing, and Related Support Services	87,144	1,268	51,004	16,925	572	323	8,319	2,925	2,281	3,527
47	Mechanic and Repair Technologies/Technicians	85,933	2,728	47,034	2,922	323	519	917	8,017	23,144	329
24	Liberal Arts and Sciences/Liberal Studies	39,996	.	38,451	1,292	.	4	249	.	.	0
48	Precision Production Trades	38,163	1,750	27,525	1,938	1,215	133	220	3,310	1,982	90
11	Computer and Information Sciences	36,552	643	23,060	5,121	153	152	854	2,877	2,361	1,331
43	Homeland Security, Law Enforcement, Firefighting and Related Protective Services	35,269	1,219	26,949	5,001	.	176	742	350	527	305
15	Engineering Technologies and Engineering-Related Fields	34,565	1,213	20,472	3,283	103	249	554	3,383	3,631	1,677
13	Education	32,364	52	5,406	13,095	298	85	11,456	81	556	1,335
49	Transportation and Materials Moving	29,932	845	17,198	888	271	324	229	8,941	1,206	30
46	Construction Trades	26,453	2,373	16,146	906	755	395	123	3,145	2,241	369
19	Family and Consumer Sciences/Human Sciences	18,849	616	15,591	1,620	49	53	376	258	195	91
50	Visual and Performing Arts	16,530	199	10,763	896	534	167	1,520	802	571	1,078
22	Legal Professions and Studies	6,984	47	3,579	740	4	33	1,324	404	439	414
10	Communications Technology/Technician	5,749	175	2,904	214	2	7	97	1,808	272	270
1	Agriculture	5,012	87	4,112	428	.	43	79	63	184	16

CIP Code Value	CIP Code Name	TOTAL	Institutional Sector								
			Public			Private, not-for-profit			For-profit		
			<2 year	2 year	4 year	<2 year	2 year	4 year	<2 year	2 year	4 year
30	Multi-/Interdisciplinary Studies	4,323	0	1,443	1,869	.	0	586	.	6	419
9	Communication	4,109	47	1,171	1,107	33	.	334	1,215	192	10
44	Public Administration and Social Service Professions	3,516	.	1,829	1,189	14	35	361	.	.	88
31	Parks, Recreation and Leisure Studies	3,366	4	1,722	307	.	.	127	872	282	52
45	Social Sciences	3,134	8	604	1,909	.	.	613	.	.	.
14	Engineering	2,814	22	489	1,355	.	13	816	115	.	4
39	Theology and Religious Vocations	2,522	.	1	2	12	447	2,060	.	0	0
23	English Language and Literature	2,506	.	421	522	192	236	90	769	268	8
16	Foreign Languages, Literatures, and Linguistics	2,053	47	1,256	451	.	1	291	.	.	7
42	Psychology	2,015	.	109	934	.	.	783	.	.	189
26	Biology/Biological Sciences	1,705	34	182	1004	.	.	446	38	1	.
41	Science Technologies/Technicians	1,691	.	1,489	202	.	.	.	.	0	.
5	Ethnic, Cultural Minority, Gender, and Group Studies	1,098	.	69	918	.	.	111	.	.	.
3	Natural Resources/Conservation	904	.	520	304	.	.	35	.	.	45
25	Library Science	585	.	279	183	.	.	123	.	.	.
29	Military Technologies and Applied Sciences	581	.	45	518	.	.	0	.	.	18
4	Architecture	523	.	253	107	.	.	162	.	.	1
27	Mathematics	490	.	124	253	.	.	113	.	.	.
40	Physical Sciences	390	.	171	87	.	.	132	.	.	.
38	Philosophy and Religious Studies	210	.	2	86	.	.	114	.	.	8
54	History	189	.	11	95	.	.	61	.	.	22

Table A2. Certificate Completions by Certificate Level and Two-Digit CIP Code, 2013-14

CIP Code Value	CIP Code Name	TOTAL	Certificate Level				
			Sub-baccalaureate			Post-Baccalaureate	Post-Master
			<1 year	1-2 year	2-4 year		
		1,064,861	490,422	479,758	37,469	37,849	19,363
51	Health Professions and Related Clinical Sciences	379,343	178,481	186,252	6,876	4,558	3,176
12	Personal and Culinary Services	147,299	40,466	96,971	9,862	0	.
52	Business, Management, Marketing, and Related Support Services	87,144	54,894	24,137	675	6,906	532
47	Mechanic and Repair Technologies/Technicians	85,933	32,847	38,559	14,527	0	.
24	Liberal Arts and Sciences/Liberal Studies	39,996	3,224	36,239	27	502	.
48	Precision Production Trades	38,163	21,802	15,759	602	.	.
11	Computer and Information Sciences	36,552	24,158	9,887	678	1,740	89
43	Homeland Security, Law Enforcement, Firefighting and Related Protective Services	35,269	27,265	7,398	66	516	24
15	Engineering Technologies and Engineering-Related Fields	34,565	18,133	15,272	707	442	11
13	Education	32,364	5,929	3,709	189	11,124	11,413
49	Transportation and Materials Moving	29,932	28,922	893	88	28	1
46	Construction Trades	26,453	12,729	13,079	645	0	.
19	Family and Consumer Sciences/Human Sciences	18,849	14,300	4,144	130	268	7
50	Visual and Performing Arts	16,530	5,043	9,504	944	775	264
22	Legal Professions and Studies	6,984	2,006	3,121	426	1,195	236
10	Communications Technology/Technician	5,749	2,353	3,276	51	62	7
1	Agriculture	5,012	2,735	1,950	301	23	3
30	Multi-/Interdisciplinary Studies	4,323	1,525	1,160	43	1,384	211
9	Communication	4,109	1,993	1,730	130	227	29
44	Public Administration and Social Service Professions	3,516	1,176	1,177	2	992	169
31	Parks, Recreation and Leisure Studies	3,366	2,456	814	25	62	9
45	Social Sciences	3,134	1,064	335	26	1,425	284
14	Engineering	2,814	595	323	13	1,641	242

CIP Code Value	CIP Code Name	TOTAL	Certificate Level				
			Sub-baccalaureate			Post-Baccalaureate	Post-Master
			<1 year	1-2 year	2-4 year		
39	Theology and Religious Vocations	2,522	453	736	144	484	705
23	English Language and Literature	2,506	1,006	1,190	67	177	66
16	Foreign Languages, Literatures, and Linguistics	2,053	1,244	472	126	142	69
42	Psychology	2,015	209	61	3	669	1,073
26	Biology/Biological Sciences	1,705	732	194	0	501	278
41	Science Technologies/Technicians	1,691	689	953	28	21	.
5	Ethnic, Cultural Minority, Gender, and Group Studies	1,098	442	83	68	428	77
3	Natural Resources/Conservation	904	611	123	.	158	12
25	Library Science	585	224	60	.	203	98
29	Military Technologies and Applied Sciences	581	25	36	.	520	.
4	Architecture	523	243	109	.	154	17
27	Mathematics	490	166	17	.	277	30
40	Physical Sciences	390	197	17	.	63	113
38	Philosophy and Religious Studies	210	60	11	0	100	39
54	History	189	25	7	.	82	75

Table A3. Certificate Completions by Two-Digit CIP Code and Title IV Indicator and First or Second Major, 2013-14

CIP Code Value	CIP Code Name	TOTAL	Postsecondary and Title IV Institution Indicator					First Major	Second Major
			Postsecondary		Not primarily postsecondary		Not open to the public		
			Title IV	Non-Title IV	Title IV	Non-Title IV			
		1,064,861	1,046,930	10,881	5,324	3	1,723	1,064,797	64
51	Health Professions and Related Clinical Sciences	379,343	373,325	3,255	2,763	.	.	379,343	.
12	Personal and Culinary Services	147,299	146,132	873	209	.	85	147,299	.
52	Business, Management, Marketing, and Related Support Services	87,144	82,702	4,183	161	.	98	87,144	.
47	Mechanic and Repair Technologies/Technicians	85,933	85,383	60	348	3	139	85,933	.
24	Liberal Arts and Sciences/Liberal Studies	39,996	39,996	.	.	.	.	39,996	.
48	Precision Production Trades	38,163	37,802	87	138	.	136	38,163	.
11	Computer and Information Sciences	36,552	35,730	621	102	.	99	36,552	.
43	Homeland Security, Law Enforcement, Firefighting and Related Protective Services	35,269	35,001	1	267	.	.	35,267	2
15	Engineering Technologies and Engineering-Related Fields	34,565	34,370	34	155	.	6	34,565	.
13	Education	32,364	32,359	4	1	.	.	32,304	60
49	Transportation and Materials Moving	29,932	28,761	1,119	52	.	.	29,932	.
46	Construction Trades	26,453	26,172	9	133	.	139	26,453	.
19	Family and Consumer Sciences/Human Sciences	18,849	18,837	11	1	.	.	18,849	.
50	Visual and Performing Arts	16,530	16,325	132	73	.	.	16,529	1
22	Legal Professions and Studies	6,984	6,828	8	148	.	.	6,984	.
10	Communications Technology/Technician	5,749	5,630	43	76	.	.	5,749	.
1	Agriculture	5,012	5,005	.	.	.	7	5,012	.
30	Multi-/Interdisciplinary Studies	4,323	4,322	.	.	.	1	4,323	.
9	Communication	4,109	4,084	.	25	.	.	4,109	.
44	Public Administration and Social Service Professions	3,516	3,516	.	.	.	.	3,516	.

CIP Code Value	CIP Code Name	TOTAL	Postsecondary and Title IV Institution Indicator					First Major	Second Major
			Postsecondary		Not primarily postsecondary		Not open to the public		
			Title IV	Non-Title IV	Title IV	Non-Title IV			
31	Parks, Recreation and Leisure Studies	3,366	3,354	12	.	.	.	3,366	.
45	Social Sciences	3,134	3,032	.	.	.	102	3,134	.
14	Engineering	2,814	2,432	.	.	.	382	2,814	.
39	Theology and Religious Vocations	2,522	2,283	239	.	.	.	2,522	.
23	English Language and Literature	2,506	1,692	142	672	.	.	2,506	.
16	Foreign Languages, Literatures, and Linguistics	2,053	2,006	47	.	.	.	2,053	.
42	Psychology	2,015	2,015	.	.	.	.	2,014	1
26	Biology/Biological Sciences	1,705	1,705	.	.	.	.	1,705	.
41	Science Technologies/Technicians	1,691	1,691	.	.	.	.	1,691	.
5	Ethnic, Cultural Minority, Gender, and Group Studies	1,098	1,098	.	.	.	.	1,098	.
3	Natural Resources/Conservation	904	904	.	.	.	.	904	.
25	Library Science	585	585	.	.	.	.	585	.
29	Military Technologies and Applied Sciences	581	64	.	.	.	517	581	.
4	Architecture	523	523	.	.	.	.	523	.
27	Mathematics	490	478	.	.	.	12	490	.
40	Physical Sciences	390	390	.	.	.	.	390	.
38	Philosophy and Religious Studies	210	209	1	.	.	.	210	.
54	History	189	189	.	.	.	.	189	.

Table A4. Certificate Completion Trends by Certificate Level and Institutional Characteristics, 1998-99 to 2013-14

		1998-99	2003-04	2008-09	2011-12	2013-14	5-Year Percentage Change	10-Year Percentage Change	15-Year Percentage Change
TOTAL		565,860	753,775	886,978	1,084,949	1,064,861	20.1%	41.3%	88.2%
Certificate Level	Sub-baccalaureate								
	<1 yr	260,766	363,669	437,863	474,644	490,422	12.0%	34.9%	88.1%
	1-2 yr	255,305	327,688	363,821	511,136	479,758	31.9%	46.4%	87.9%
	<4 yr	30,678	29,523	38,390	44,246	37,469	-2.4%	26.9%	22.1%
	Post-baccalaureate	10,795	20,126	28,954	36,548	37,849	30.7%	88.1%	250.6%
	Post-Master	8,316	12,769	17,950	18,375	19,363	7.9%	51.6%	132.8%
Sector	Public								
	<2 yr	42,863	43,972	35,833	33,579	32,901	-8.2%	-25.2%	-23.2%
	2 yr	208,654	314,043	373,682	448,872	483,647	29.4%	54.0%	131.8%
	4 yr	23,965	24,586	44,048	69,900	89,343	102.8%	263.4%	272.8%
	Private, not-for -profit								
	<2 yr	5,785	16,592	10,932	10,021	8,641	-21.0%	-47.9%	49.4%
	2 yr	8,567	15,324	10,258	14,843	10,165	-0.9%	-33.7%	18.7%
	4 yr	22,873	29,651	41,298	38,259	44,629	8.1%	50.5%	95.1%
	For-profit								
	<2 yr	94,397	207,240	211,650	234,118	204,276	-3.5%	-1.4%	116.4%
2 yr	65,294	85,378	126,871	196,052	155,979	22.9%	82.7%	138.9%	
4 yr	11,788	8,555	19,801	31,619	35,280	78.2%	312.4%	199.3%	

Table A5. Certificate Completion Trends by Two-Digit CIP Code, 1998-99 to 2013-14

CIP Code Value	CIP Code Name	1998-99	2003-04	2008-09	2011-12	2013-14	5-Year Percentage Change	10-Year Percentage Change	15-Year Percentage Change
	TOTAL	565,860	753,775	886,978	1,084,949	1,064,861	20.1%	41.3%	88.2%
29	Military Technologies and Applied Sciences, Other	3	76	502	917	581	15.7%	664.5%	19266.7%
24	Liberal Arts and Sciences/Liberal Studies	1,328	3,633	11,587	34,089	39,996	245.2%	1000.9%	2911.7%
4	Architecture	58	404	438	473	523	19.4%	29.5%	801.7%
41	Science Technologies/Technicians, General	276	407	807	1,025	1,691	109.5%	315.5%	512.7%
26	Biology/Biological Sciences, General	339	399	1,030	806	1,705	65.5%	327.3%	402.9%
31	Parks, Recreation and Leisure Studies	749	447	897	1,956	3,366	275.3%	653.0%	349.4%
45	Social Sciences, Other	767	945	1,391	2,530	3,134	125.3%	231.6%	308.6%
27	Mathematics, General	128	205	201	329	490	143.8%	139.0%	282.8%
14	Engineering, General	760	910	1,741	2,023	2,814	61.6%	209.2%	270.3%
23	English Language and Literature, General	687	1,778	2,644	2,134	2,506	-5.2%	40.9%	264.8%
44	Public Administration and Social Service Professions, Other	1,008	1,616	2,241	2,854	3,516	56.9%	117.6%	248.8%
30	Multi-/Interdisciplinary Studies, Other	1,318	1,300	3,095	4,100	4,323	39.7%	232.5%	228.0%
25	Library Science, Other	201	394	445	669	585	31.5%	48.5%	191.0%
42	Psychology, General	741	1,340	1,687	1,953	2,015	19.4%	50.4%	171.9%
16	Foreign Languages, Literatures, and Linguistics, Other	760	3,666	1,617	1,852	2,053	27.0%	-44.0%	170.1%
10	Communications Technology/Technician	2,167	3,520	4,428	5,837	5,749	29.8%	63.3%	165.3%
51	Health Professions and Related Clinical Sciences, Other	149,893	284,257	371,137	439,262	379,343	2.2%	33.5%	153.1%
5	Ethnic, Cultural Minority, Gender, and Group Studies, Other	445	616	841	935	1,098	30.6%	78.2%	146.7%
13	Education, General	13,349	27,988	34,020	33,030	32,364	-4.9%	15.6%	142.4%

CIP Code Value	CIP Code Name	1998-99	2003-04	2008-09	2011-12	2013-14	5-Year Percentage Change	10-Year Percentage Change	15-Year Percentage Change
9	Communication, General	1,784	2,274	2,487	3,329	4,109	65.2%	80.7%	130.3%
12	Personal and Culinary Services, Other	69,912	92,163	109,967	151,322	147,299	33.9%	59.8%	110.7%
3	Natural Resources/Conservation, General	452	833	732	1,211	904	23.5%	8.5%	100.0%
46	Construction Trades, Other	13,347	19,465	25,447	26,320	26,453	4.0%	35.9%	98.2%
22	Legal Professions and Studies, Other	3,862	7,836	5,979	7,023	6,984	16.8%	-10.9%	80.8%
43	Homeland Security, Law Enforcement, Firefighting and Related Protective Services, Other	19,684	28,274	28,607	30,384	35,269	23.3%	24.7%	79.2%
47	Mechanic and Repair Technologies/Technicians, Other	48,293	60,628	71,131	90,643	85,933	20.8%	41.7%	77.9%
48	Precision Production Trades, General	24,767	14,061	23,194	29,106	38,163	64.5%	171.4%	54.1%
49	Transportation and Materials Moving, Other	19,824	22,711	24,776	24,992	29,932	20.8%	31.8%	51.0%
15	Engineering Technologies and Engineering-Related Fields, Other	24,009	25,231	25,402	35,758	34,565	36.1%	37.0%	44.0%
50	Visual and Performing Arts, Other	12,536	12,262	14,851	18,080	16,530	11.3%	34.8%	31.9%
19	Family and Consumer Sciences/Human Sciences, Other	15,568	16,798	17,391	18,124	18,849	8.4%	12.2%	21.1%
11	Computer and Information Sciences, General	31,782	37,624	23,210	28,370	36,552	57.5%	-2.8%	15.0%
38	Philosophy and Religious Studies, General	187	147	244	235	210	-13.9%	42.9%	12.3%
1	Agriculture, General	4,607	4,836	5,122	4,803	5,012	-2.1%	3.6%	8.8%
39	Theology and Religious Vocations, Other	2,687	1,781	2,315	2,635	2,522	8.9%	41.6%	-6.1%
52	Business, Management, Marketing, and Related Support Services, Other	96,974	72,182	64,937	75,402	87,144	34.2%	20.7%	-10.1%
40	Physical Sciences	608	576	244	235	390	59.8%	-32.3%	-35.9%

CIP Code Value	CIP Code Name	1998-99	2003-04	2008-09	2011-12	2013-14	5-Year Percentage Change	10-Year Percentage Change	15-Year Percentage Change
54	History, General		192	193	203	189	-2.1%	-1.6%	

Table A6. *Two-Digit CIP Code Crosswalk, 1998-99 to 2013-14*

CIP Code Name, 1998-99	CIP Code, 1998-99	CIP Code Name, 2013-14	CIP Code, 2013-14
Agriculture	1	Agriculture, Agriculture Operations and Related Sciences	1
Agriculture	2	Agriculture, Agriculture Operations and Related Sciences	1
Natural Resources and Conservation	3	Natural Resources and Conservation	3
Architecture and Related Services	4	Architecture and Related Services	4
Area Studies	5	Area Studies	5
Business	8	Business, Management, Marketing, and Related Support Services	52
Communication, Journalism, and Related Programs	9	Communication, Journalism, and Related Programs	9
Communications Technologies/Technicians and Support Services	10	Communications Technologies/Technicians and Support Services	10
Computer and Information Sciences and Support Services	11	Computer and Information Sciences and Support Services	11
Personal and Culinary Services	12	Personal and Culinary Services	12
Education	13	Education	13
Engineering	14	Engineering	14
Engineering Technologies and Engineering-Related Fields	15	Engineering Technologies and Engineering-Related Fields	15
Foreign Languages, Literatures, and Linguistics	16	Foreign Languages, Literatures, and Linguistics	16
Family and Consumer Sciences/Human Sciences	19	Family and Consumer Sciences/Human Sciences	19
Family and Consumer Sciences/Human Sciences	20	Family and Consumer Sciences/Human Sciences	19
Legal Professions and Studies	22	Legal Professions and Studies	22
English Language and Literature/Letters	23	English Language and Literature/Letters	23
Liberal Arts and Sciences, General Studies and Humanities	24	Liberal Arts and Sciences, General Studies and Humanities	24
Library Science	25	Library Science	25
Biological and Biomedical Sciences	26	Biological and Biomedical Sciences	26
Mathematics and Statistics	27	Mathematics and Statistics	27
Military Technologies and Applied Sciences	29	Military Technologies and Applied Sciences	29
Multi-/Interdisciplinary Studies,	30	Multi-/Interdisciplinary Studies,	30
Parks, Recreation, Leisure, and Fitness Studies	31	Parks, Recreation, Leisure, and Fitness Studies	31
Philosophy and Religious Studies	38	Philosophy and Religious Studies	38

CIP Code Name, 1998-99	CIP Code, 1998-99	CIP Code Name, 2013-14	CIP Code, 2013-14
Theology and Religious Vocations	39	Theology and Religious Vocations	39
Physical Sciences	40	Physical Sciences	40
Science Technologies/Technicians	41	Science Technologies/Technicians	41
Psychology	42	Psychology	42
Homeland Security, Law Enforcement, Firefighting and Related Protective Services	43	Homeland Security, Law Enforcement, Firefighting and Related Protective Services	43
Public Administration and Social Service Professions	44	Public Administration and Social Service Professions	44
Social Sciences	45	Social Sciences	45
Construction Trades	46	Construction Trades	46
Mechanic and Repair Technologies/Technicians	47	Mechanic and Repair Technologies/Technicians	47
Precision Production	48	Precision Production	48
Transportation and Materials Moving	49	Transportation and Materials Moving	49
Visual and Performing Arts	50	Visual and Performing Arts	50
Health Professions and Related Clinical Sciences	51	Health Professions and Related Clinical Sciences	51
Business, Management, Marketing, and Related Support Services	52	Business, Management, Marketing, and Related Support Services	52
Social Sciences	45	History	54