

Measuring Alternative Educational Credentials: 2012

Household Economic Studies

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INTRODUCTION

The strong relationship between education and personal achievement is a basic tenet of our society, as well as an often-examined topic of social science research.¹ Much of this research relies on traditional measures of educational attainment based on academic degrees, including high school diplomas, associate's degrees, bachelor's degrees, and advanced degrees. However, in recent years, attention has been called to the variety of educational credentials other than academic degrees that have labor market value.² Policy makers and researchers have begun to consider the role of these "alternative educational credentials" in job placement, earnings, and career advancement.³

However, there is a dearth of relevant data on alternative educational credentials. This report uses new data from the Survey of Income and Program Participation (SIPP), based on questionnaire items researched and developed by a federal interagency research team. These new questions, administered to a nationally

¹ See, for example, Michael Hout, "Social and Economic Returns to College Education in the United States," *Annual Review of Sociology*, 38:379-400, 2012.

² See, for example, Anthony Carnevale, Stephen Rose, and Andrew Hanson, *Certificates: Gateway to Gainful Employment and College Degrees*, Georgetown Center on Education and the Workforce, 2012.

Morris Kleiner and Alan Krueger, "The Prevalence and Effects of Occupational Licensing," *British Journal of Industrial Relations*, 48:676-687, 2010.

³ President Obama recognized their value in his 2009 State of the Union address when he asked "every American to commit to at least one year or more of higher education or career training...[including] community college or a 4-year school; vocational training or an apprenticeship." The President's challenge is rooted in a desire to have a more skilled workforce and population.

President Barack Obama, Address to Joint Session of Congress, February 24, 2009, accessed online on 4/4/2013 at <www.whitehouse.gov/the_press_office/Remarks-of-President-Barack-Obama-Address-to-Joint-Session-of-Congress>.

representative sample for the first time in the Wave 13 (fall 2012) collection of the 2008 SIPP Panel, allow us to provide estimates of the number and characteristics of people in the U.S. adult population who hold some of these alternative educational credentials.

One main focus of the report is to see how these credentials are distributed in the population, independent of, and in supplement to, existing levels of educational attainment, i.e., "traditional" academic degrees. A part of this line of inquiry is to identify the extent to which different demographic subgroups utilize these alternative educational pathways. A second part of this report turns attention to the association between these alternative educational credentials and various labor market outcomes, such as employment and earnings.

OVERVIEW OF EDUCATION DATA

Many surveys routinely collect valid and reliable measures of educational attainment that result from regular school attendance and subsequently awarded degrees, including items such as high school diplomas, associate's degrees, bachelor's degrees, and advanced degrees. However, attending regular school is not the only avenue through which people receive training and develop skills that pay off in the labor market. In addition to, or instead of, regular schooling, some people earn educational certificates, professional certifications, or licenses or participate in noncredit courses, on-the-job training, or apprenticeships. Thus far, federal surveys have not generally collected data on these alternative education and training mechanisms in a systematic, ongoing fashion, although across various federal surveys over time, some attempts have been

made to assess education outside of the conventional degree scope.⁴

In 2009, a federal, interagency research team, now known formally as the Federal Interagency Working Group on Expanded Measures of Enrollment and Attainment (GEMEnA), was formed to address the issue of shortfalls in educational attainment measurement and to research and develop measures of alternative credentials.⁵ Through an extensive process of literature review and interviews with a variety of academic and policy staff, followed by the development of focus groups and cognitive interviews, the team developed a set of survey questions, which were first fielded by the National Center for Education Statistics (NCES) in the Adult Training and Education Survey (ATES) Pilot Study. After careful analysis of the ATES data, the group recommended a small set of measures about educational certificates, professional certifications, and licenses for possible inclusion in federal surveys.⁶

The “Working Definitions” box defines these terms. Appendix A provides the actual survey

⁴ S. Bielick, S. Cronen, C. Stone, J. Montaquila, and S. Roth, *The Adult Training and Education Survey (ATES) Pilot Study: Technical Report (NCES 2013-190)*, U.S. Department of Education, Washington, DC: National Center for Education Statistics, 2013, retrieved July 1, 2013 from <<http://nces.ed.gov/pubsearch>>.

⁵ For more information on the Federal Interagency Working Group on Expanded Measures of Enrollment and Attainment (GEMEnA), please visit <<http://nces.ed.gov/surveys/gemena/>>.

⁶ S. Bielick, S. Cronen, C. Stone, J. Montaquila, and S. Roth, *The Adult Training and Education Survey (ATES) Pilot Study: Technical Report (NCES 2013-190)*, pp. vii–viii, U.S. Department of Education, Washington, DC: National Center for Education Statistics, 2013, retrieved July 1, 2013, from <<http://nces.ed.gov/pubsearch>>.

WORKING DEFINITIONS OF ALTERNATIVE CREDENTIALS¹

Definitions Developed by GEMEnA

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 either written, oral, or performance-based. Certification is a time-limited credential that is renewed through a recertification process.

License: A credential awarded by a licensing agency 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.

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., 1 day) are not in the definitional scope for educational certificates.

¹ S. Bielick, S. Cronen, C. Stone, J. Montaquila, and S. Roth, *The Adult Training and Education Survey (ATES) Pilot Study: Technical Report (NCES 2013-190)*, p. 4, U.S. Department of Education, Washington, DC: National Center for Education Statistics, 2013, retrieved July 1, 2013, from <<http://nces.ed.gov/pubsearch>>.

questions designed to capture these concepts.

These recommended items constitute the questionnaire content administered in the Wave 13, 2008 SIPP Panel on Professional Certifications, Licenses, and Educational Certificates and are used as the basis of the estimates that are provided in this report. The estimates presented in this report are the first based on these new items collected in a large scale, nationally representative survey and provide valuable baseline information for future work.

While this report represents one initial milestone in expanding our knowledge and implementation of an expanded definition of educational attainment, it is just

the beginning of what is hoped to be a continued examination of educational attainment, enrollment, and participation concepts and measures. The GEMEnA group continues to research these questions and other aspects of educational attainment that lie outside of the traditional college degree spectrum. This includes continuing investigation of items such as certificates, apprenticeships, work training, and other forms of human capital enhancement, much of which translate into valuable labor force skills and worker productivity.

ABOUT THE SIPP

The 2008 SIPP is a nationally representative longitudinal survey of the United States that began in early 2008, with follow-up interviews

every 4 months. The SIPP includes a measure of regular education level, demographic characteristics, and a variety of economic outcomes. The thirteenth interview (“wave”) of the SIPP 2008 Panel, collected between September and December 2012, contains the Professional Certifications, Licenses, and Educational Certificates topical module (see Appendix A). This topical module asks respondents if they have ever received an educational certificate, professional certification, or license, and it includes detailed follow-up questions regarding the credentials they report.

In addition to these items of particular focus in this report, the SIPP contains a sizable array of information on the economic activities of the respondents. This includes not only data about their labor force behavior, but their earnings and assets, as well as their engagement in a variety of federal income transfer and support programs. This report does not provide information on every aspect of individuals associated with alternative educational credentials, but focuses on some of the key relationships with regard to regular education level, employment, and earnings.

CREDENTIALS HELD BY ADULTS

The SIPP data produce the first national estimates using the questions developed by the GEMEnA group. The data show that a sizable proportion of the population holds alternative educational credentials independent

Table 1.

Percentage With Alternative Credentials by Regular Education Level for the Population Aged 18 and Older: 2012

(Weighted, numbers in thousands)

Regular education level	No alternative credential		Professional certification, license		Educational certificate	
	Number	Percent	Number	Percent	Number	Percent
Total	161,557	75.2	46,326	21.6	19,113	8.9
Less than high school	22,240	93.6	1,315	5.5	411	1.7
High school completion	59,056	83.1	9,891	13.9	4,482	6.4
Some college	32,134	76.5	8,064	19.3	4,243	10.2
Associate’s degree	11,457	63.8	5,409	30.2	3,059	17.1
Bachelor’s degree	26,196	67.3	11,447	29.5	4,027	10.4
Master’s degree	8,291	52.5	7,018	44.6	2,180	13.9
Professional degree	1,015	31.6	2,178	67.7	436	13.7
Doctorate degree	1,531	58.8	1,004	38.7	274	10.6

Note: Nonrespondents are not included in estimates of alternative credentials.

Source: U.S. Census Bureau, Survey of Income and Program Participation, 2008 Panel, Wave 13.

of traditional college degrees. In 2012, 46.3 million adults (aged 18 and over) held a professional certification or license, and 19.1 million held an educational certificate (Table 1).⁷ In percentage terms, 22 percent of adults held a professional certification or license, and 9 percent held an educational certificate. Although some adults held both types of credentials, 75 percent did not hold either.

As Figure 1 shows, professional certifications and licenses were more common among the population with an associate’s degree or higher, and they are particularly concentrated at the master’s and professional degree levels. In

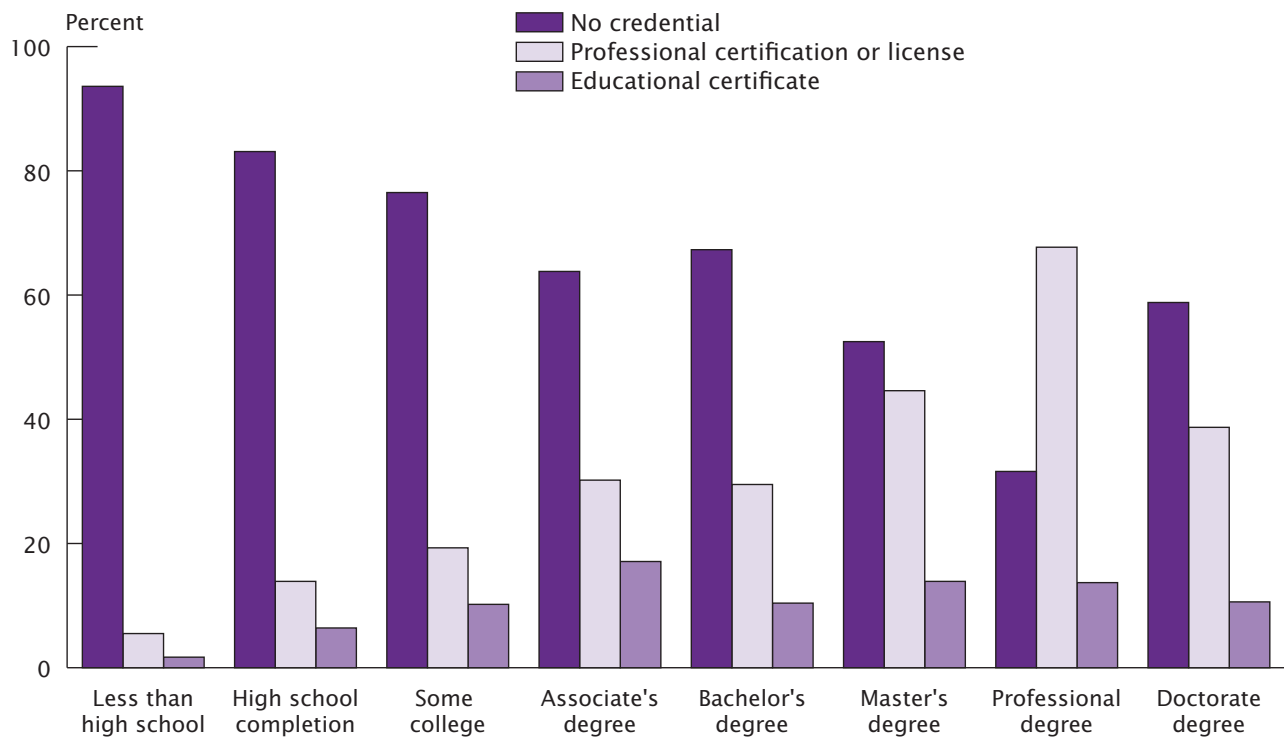
contrast, educational certificates were most prevalent at the associate’s degree level. Adults with a high school degree or less were the least likely to hold any type of alternative credential.

At a time when there is a growing emphasis on the need to obtain postsecondary educational experience, Table 1 shows that in 2012, 11.2 million adults with a high school degree or less held a professional certification or license. If this alternative credential were incorporated into an expanded measure of education, these 11.2 million people might be recategorized into the “more than high school” category, representing a shift of almost 5 percent of the adult population.⁸

⁷ While total population estimates in tables represent the entire U.S. civilian non-institutionalized population, nonresponse to the topical module and specific data items has not been accounted for with imputation. About 9 percent of respondents did not provide answers to the topical module, representing approximately 21 million persons. Thus, these estimates of alternative credentials are conservative numeric estimates, reflecting only those sample cases providing data.

⁸ The number of professional certifications and licenses is based on cases without missing data in the topical module, while the number in the total population is based on the entire sample. Therefore, this estimate of 5 percent is conservative, since some of the respondents with missing data likely hold a professional certification or license but are not counted here.

Figure 1.
Alternative Credential Status by Regular Education Level: 2012



Note: Nonrespondents are not included in estimates of alternative credentials.
 Source: U.S. Census Bureau, Survey of Income and Program Participation, 2008 Panel, Wave 13.

DEMOGRAPHIC CHARACTERISTICS OF ALTERNATIVE CREDENTIAL HOLDERS

The prevalence of alternative credentials varies across demographic groups. Although men and women held alternative credentials at similar rates, there were significant differences by race and ethnicity (Table 2).⁹ Non-Hispanic Whites were more likely than other groups to hold professional certifications, licenses, and educational certificates, and Hispanics were least likely.¹⁰ For example, 24 percent of

⁹ There were no significant differences between men and women in rates of no alternative credentials or professional certifications and licenses, but more women than men held educational certificates.

¹⁰ The percentage of non-Hispanic Whites and Asians with educational certificates did not differ.

non-Hispanic Whites held professional certifications or licenses, compared with 13 percent of Hispanics. Although Asians and Blacks held alternative credentials at similar rates, both groups were less likely than Whites to hold professional certifications and licenses, and Blacks were less likely than Whites to hold educational certificates. More native-born adults held alternative credentials than foreign-born adults. Alternative credentials were most commonly held by people in the mid-career age group (30–49 years) as opposed to younger or older people.

While 28 percent of employed adults held professional certifications or licenses, 13 percent of unemployed adults and 10 percent of adults not in the labor force held

them. People working in technical occupations were the most likely to hold an alternative credential, and only 29 percent did not. Seventy percent of adults working in technical occupations held a professional certification or license, and 25 percent held an educational certificate. However, in most occupational categories, fewer than half of all workers held any kind of alternative credential. Across industry types, people working in the educational services, health care, or social assistance industries were the most likely to hold an alternative credential.

Patterns across demographic characteristics were not always the same at different levels of regular education (Table 3). Women had higher rates of alternative

Table 2.

Percentage With Alternative Credentials by Select Characteristics for the Population Aged 18 and Older: 2012

(Weighted, numbers in thousands)

Characteristic	Total	No alternative credential	Professional certification, license	Educational certificate
Total	235,455	75.2	21.6	8.9
Sex				
Male	113,352	75.2	21.7	8.3
Female	122,103	75.3	21.4	9.5
Race and Hispanic Origin				
White alone	187,330	74.4	22.4	9.1
Black alone	28,728	79.0	18.2	8.2
Asian alone	10,680	78.2	19.4	8.8
White, non-Hispanic	155,530	72.1	24.3	9.7
Hispanic (of any race)	35,080	85.3	12.7	5.7
Age				
18 to 29 years	50,867	84.3	13.9	6.0
30 to 49 years	81,373	70.5	26.5	10.3
50 years and older	103,213	74.8	21.3	9.2
Nativity				
Native born	198,609	73.7	22.8	9.5
Foreign born	36,846	83.5	14.9	5.9
Employment Status¹				
Employed	148,776	68.8	28.1	10.5
Unemployed	9,045	84.2	12.6	7.2
Not in the labor force	77,634	86.5	10.1	6.2
Occupation				
Managerial	20,933	69.1	27.3	9.6
Professional	25,596	57.8	39.3	12.1
Technical	11,410	28.5	69.6	24.7
Service	23,856	75.4	22.2	9.1
Sales	16,061	79.3	17.8	7.2
Clerical	19,215	81.8	13.9	8.3
Farming	1,428	90.0	8.2	3.8
Craft	12,681	67.8	28.6	11.7
Production	17,543	77.9	19.2	6.7
Industry				
Agriculture, forestry, fishing, hunting, mining	3,036	83.3	13.0	7.7
Construction	9,368	69.1	28.4	9.3
Manufacturing	14,752	81.4	13.9	7.9
Wholesale trade	3,995	80.4	16.3	6.0
Retail trade	16,792	82.8	14.2	7.1
Transportation, warehousing, utilities	6,977	68.8	28.7	8.4
Information	3,102	82.6	14.3	6.2
Finance, insurance, real estate	9,400	61.7	35.6	11.3
Professional, scientific, management, administration, and waste management services	17,666	71.7	25.2	8.4
Education services, health care, social assistance	34,175	49.6	47.6	16.6
Arts, entertainment, recreation, accommodation, food services	13,612	83.9	13.6	5.4
Other services, except public administration	7,512	63.1	33.5	14.4
Public administration	7,407	63.0	33.4	12.9
Military	930	75.9	22.6	8.3

¹ The employed worked during at least 1 month of the reference period, the unemployed did not work but looked for work during at least 1 month, and those not in the labor force did not work or look for work during any of the months.

Notes: Totals for industry and occupation do not equal total for the employed population because it excludes some contingent workers due to data limitations.

Nonrespondents are not included in estimates of alternative credentials.

Source: U.S. Census Bureau, Survey of Income and Program Participation, 2008 Panel, Wave 13.

Table 3.

Percentage With Alternative Credentials by Regular Education Level and Select Characteristics for the Population Aged 18 and Older: 2012

(Weighted, numbers in thousands)

Characteristic	High school or less			Some college, less than bachelor's			Bachelor's degree			Advanced degree		
	Total	No alternative credential	Professional certification, license	Total	No alternative credential	Professional certification, license	Total	No alternative credential	Professional certification, license	Total	No alternative credential	Professional certification, license
Sex												
Male	52,516	83.2	14.6	29,703	72.8	22.5	19,865	70.3	26.5	11,269	54.7	43.0
Female	52,637	88.3	9.1	35,539	72.7	22.5	22,215	64.8	32.2	11,712	45.9	51.5
Race and Hispanic Origin												
White alone	82,266	85.3	12.2	51,679	72.1	23.0	34,487	66.7	30.3	18,898	48.5	49.0
Black alone	15,085	87.8	10.5	8,711	74.7	20.7	3,243	66.5	29.7	1,691	49.6	48.6
Asian alone	3,405	88.5	9.6	2,182	75.0	21.7	3,192	76.8	20.9	1,901	66.6	31.1
White, non-Hispanic	61,250	83.3	13.8	44,599	71.3	23.7	31,734	65.9	31.0	17,948	48.3	49.2
Hispanic (any race)	23,254	91.1	7.7	7,730	77.1	18.5	3,019	75.9	22.7	1,078	49.0	47.6
Age												
18 to 29 years	23,816	90.3	8.2	17,942	82.8	15.1	7,590	75.6	22.1	1,520	56.2	41.1
30 to 49 years	31,926	82.0	15.7	22,450	66.2	29.0	17,522	66.7	31.0	9,475	50.0	47.7
50 years and older	49,409	86.1	11.0	24,850	71.8	21.8	16,969	64.6	31.3	11,986	49.6	47.8
Employment Status¹												
Employed	55,518	79.8	17.7	43,959	67.9	27.8	31,704	63.9	33.2	17,595	46.8	51.1
Unemployed	5,042	89.1	8.5	2,558	78.7	16.5	1,148	80.4	17.0	297	63.7	30.8
Not in the labor force	44,593	92.7	5.1	18,725	83.3	11.0	9,228	77.9	18.4	5,088	61.4	35.3
Nativity												
Native born	84,487	84.4	12.8	58,582	72.1	22.9	36,002	66.1	30.7	19,539	47.8	49.7
Foreign born	20,666	91.1	7.8	6,660	78.0	19.1	6,078	75.1	22.8	3,442	64.0	33.9

¹The employed worked during at least 1 month of the reference period, the unemployed did not work but looked for work during at least 1 month, and those not in the labor force did not work or look for work during any of the months.

Notes: Totals for industry and occupation do not equal total for the employed population because it excludes some contingent workers due to data limitations. Nonrespondents are not included in estimates of alternative credentials.

Source: U.S. Census Bureau, Survey of Income and Program Participation, 2008 Panel, Wave 13.

Table 4.

Percentage With Alternative Credentials by Detailed Employment Status for the Population Aged 18 and Older: 2012

(Weighted, numbers in thousands)

Detailed employment	Total	No alternative credential	With professional certification, license	With educational certificate
All persons	235,455	75.2	21.6	8.9
Employed full-time all 4 months	92,716	67.7	29.4	10.4
Employed all 4 months part-time or a combination of part- and full-time . . .	36,229	70.2	26.4	10.3
Employed sometime during 4 months	19,832	71.9	24.9	10.8
Unemployed	9,045	84.2	12.6	7.2
Not in the labor force	77,634	86.5	10.1	6.2

Note: Nonrespondents are not included in estimates of alternative credentials.

Source: U.S. Census Bureau, Survey of Income and Program Participation, 2008 Panel, Wave 13.

credentials than men at the bachelor's degree and advanced degree levels. At the advanced degree level, 15 percent of women held educational certificates, compared with 12 percent of men, and 51 percent of women held professional certifications or licenses compared with 43 percent of men. Among adults with a high school degree or less, more men than women held alternative credentials. For example, 15 percent of men and 9 percent of women held professional certifications or licenses.

Among advanced degree holders, there were similar rates of professional certifications across racial and ethnic groups except for Asians, who had significantly lower rates than all other groups. While 48 to 49 percent of all other groups of advanced degree holders also held professional certifications or licenses, only 31 percent of Asians did so. Among bachelor's degree holders, 77 percent of Asians and 76 percent of Hispanics did not hold any alternative credentials, a higher rate than for Blacks and Whites. Hispanics had particularly low rates of alternative credentials at most levels except the advanced

degree level.¹¹ The patterns by nativity status and employment status found in Table 2 held across education levels.

LABOR MARKET RETURNS TO ALTERNATIVE CREDENTIALS

While Tables 2 and 3 show that the level of alternative credentials varied by broad categories of employment status, Table 4 examines this relationship using a more detailed measure of employment status. Among adults working full-time during each of the previous 4 months (prior to the interview date), 32 percent held an alternative credential, compared with 30 percent of those working all 4 months (either part-time or a combination of part- and full-time) and 28 percent of those working for some part of the 4 months. In contrast, just 16 percent of the unemployed and 13 percent of those not in the labor force held an alternative credential of some kind. Similarly, people employed full-time during the entire 4 months

¹¹ The percentage of Hispanics with no alternative credential did not differ from the percentage of Blacks or Asians at the some college but less than bachelor's degree level, Asians at the bachelor's degree level, or Whites, Blacks, and non-Hispanic Whites at the advanced degree level.

had higher levels of professional certification or licensure than either of the other two employed groups.

Just as employment status varied by regular education level and alternative credentials, so did earnings (Table 5). Overall, people working full-time with alternative credentials earned more than those without any alternative credentials, and people with professional certifications and licenses earned the most. The median monthly earnings for someone with a professional certification or license only was \$4,167 compared to \$3,433 for someone with an educational certificate only, \$3,920 for someone with both types of credentials, and \$3,110 for someone without any alternative credential. Of course, factors such as education level, occupation, and industry also shape the relationship between earnings and alternative credentials.

Below the bachelor's degree level, alternative credentials were often associated with an earnings advantage. Professional certification or license holders earned more than those without an alternative credential at each level of education below the bachelor's degree.

Table 5.

Median Monthly Earnings by Regular Education Level and Alternative Credentials for the Population Aged 18 and Older: 2012

(Weighted, numbers in thousands. Earnings in dollars. Earners employed full-time for the 4 months before the survey)

Regular education level	Total	Neither		Professional certification, license only		Educational certificate only		Both	
		Median earnings	Standard error ¹	Median earnings	Standard error ¹	Median earnings	Standard error ¹	Median earnings	Standard error ¹
Total	90,490	3,110	34	*4,167	54	*3,433	104	*3,920	105
Less than high school . . .	5,665	1,920	40	*2,419	181	*3,291	701	*4,088	1,020
High school completion . .	26,343	2,500	17	*3,053	72	*2,917	146	*3,200	165
Some college.	16,667	2,947	65	*3,333	57	*3,333	211	3,200	169
Associate's degree	8,890	3,240	96	*3,810	146	3,200	146	3,533	189
Bachelor's degree	20,941	4,417	117	4,583	89	*3,775	152	4,320	201
Master's degree.	8,460	6,000	229	5,600	136	5,500	362	*4,752	251
Professional degree.	1,983	6,250	666	*8,750	1,022	X	X	6,500	1,650
Doctorate degree.	1,540	7,083	316	7,083	707	6,250	870	*5,400	903

*Denotes significant difference from having neither alternative credential at the .10 level.

X No respondents had a professional degree and an educational certificate only.

¹ Data are based on a sample and are subject to sampling variability. The standard error is a measure of an estimate's variability. It is a measure of the deviation of a sample estimate from the average of all possible samples.

Notes: Earnings analyses only include workers with positive earnings in the 4-month reference period. Nonrespondents are not included in estimates of alternative credentials.

Source: U.S. Census Bureau, Survey of Income and Program Participation, 2008 Panel, Wave 13.

Among people with some college but no degree or less, educational certificate holders also earned more than people without an alternative credential. These findings suggest that at low levels of regular education, there is routinely an earnings premium for a professional certification or license or an educational certificate.

At the bachelor's degree level or higher, there were few significant differences in earnings between people with either type of alternative credential and people with no alternative credential. Only professional degree holders earned significantly more per month with a professional certification or license than without an alternative credential.

Figure 2 shows that the ratio of earnings of those with a professional certification or license to

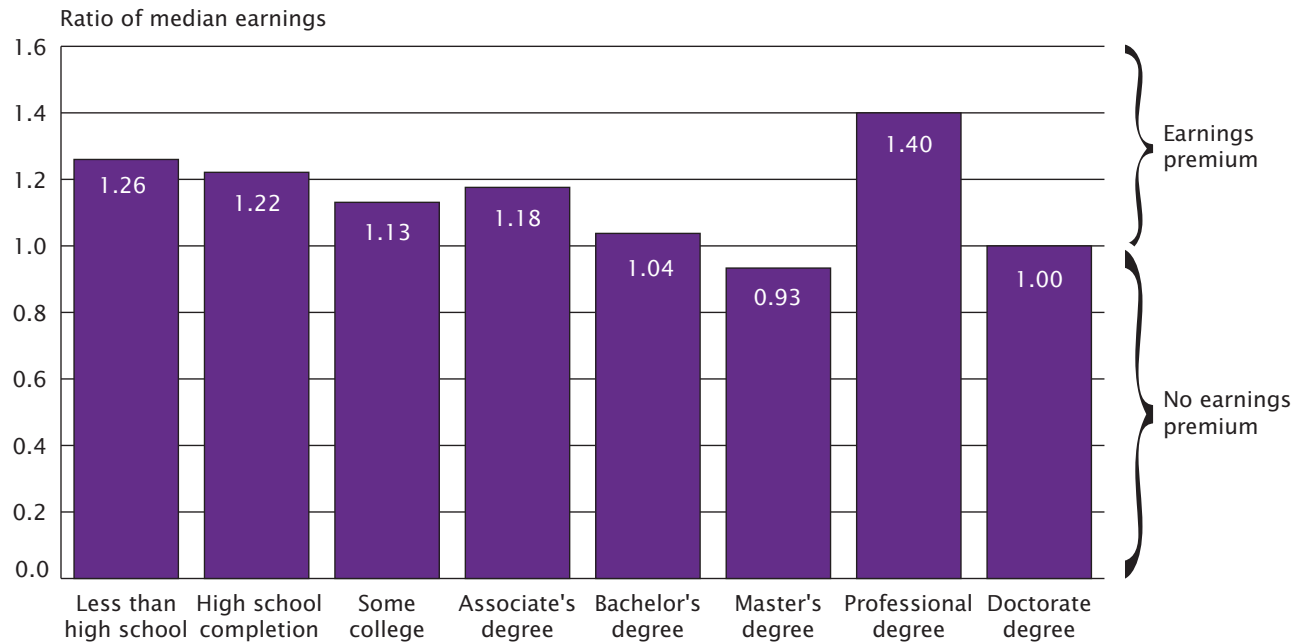
earnings of those without any alternative credential was significantly greater than one for people with less than high school completion, high school completion, some college but no degree, associate's degrees, and professional degrees (ranging from 1.13 to 1.40). For two groups—those completing less than high school and professional degree holders—earnings returns were significantly enhanced when the individual also held a professional certification or license. However, Table 6 shows that these two groups worked in very different types of jobs. Professional certification or license holders with less than a high school degree were most concentrated in production, service, and craft occupations. These include jobs such as bus drivers, carpenters, electricians, cooks, and hairdressers. In contrast, professional certification or

license holders with a professional degree were more concentrated in professional and technical occupations, including jobs such as lawyers and physicians.

CHARACTERISTICS OF ALTERNATIVE CREDENTIALS

In addition to information on who holds alternative credentials, SIPP also collected additional data about some of the characteristics of the alternative credentials. Table 7 shows various characteristics of the professional certifications and licenses. The majority (71 percent) were awarded by the government, suggesting they are licenses rather than certifications. Ninety-six percent of adults with a professional certification or license got it for work-related reasons, and the same proportion reported that it can be used to get a job with

Figure 2.
Median Monthly Earnings for Professional Certification or License Relative to No Alternative Credential by Education Level: 2012



Note: Nonrespondents are not included in estimates of alternative credentials. Only people employed full-time for the 4 months before the survey with positive earnings are included in these analyses.
 Source: U.S. Census Bureau, Survey of Income and Program Participation, 2008 Panel, Wave 13.

any employer in the field. About three-quarters of these credentials were required for the current or most recent job. Besides the “other” category, the most common fields of certification were education (17 percent), nursing and nurse assisting (13 percent), and other medical or health care fields (12 percent). Over 90 percent of professional certification and license holders took courses or training and had to demonstrate skills on the job or pass a test or exam in order to earn them. About two-thirds of adults who held a professional certification or license had to take periodic tests or continuing education credits in order to maintain it.

Table 6.
Percentage With Professional Certification or License by Occupation and Select Education Levels for the Population Aged 18 and Older Who Worked During the Last 4 Months: 2012

(Weighted)

Occupation	Less than high school	Professional degree
Managerial	6.1	8.6
Professional	1.5	47.7
Technical	11.3	37.4
Service	24.6	1.1
Sales	3.3	2.0
Clerical	2.6	2.2
Farming	0.8	0.0
Craft	23.9	0.4
Production	26.1	0.7

Note: Nonrespondents are not included in estimates of alternative credentials.
 Source: U.S. Census Bureau, Survey of Income and Program Participation, 2008 Panel, Wave 13.

Table 7.

Characteristics of Professional Certifications and Licenses

(Weighted, numbers in thousands)

Characteristic	Total	Percent
Who Awarded		
Government (federal, state, local)	32,638	71.4
Industry	4,691	10.3
Business, company, nonprofit	2,409	5.3
Professional association	4,797	10.5
Other	1,154	2.5
Main Reason for Getting It		
Work-related	44,431	96.2
Personal interest	1,760	3.8
Can Be Used to Get Job With Any Employer in the Field		
Yes	44,316	96.3
No	1,683	3.7
Required for Current/Most Recent Job		
Yes	35,085	76.2
No	10,346	22.5
Not applicable (never worked)	639	1.4
Took Courses or Training to Earn		
Yes	42,795	93.0
No	3,202	7.0
Had to Demonstrate Skills On the Job or Pass a Test or Exam to Earn		
Yes	41,914	91.6
No	3,830	8.4
Has to Take Periodic Tests or CEUs to Maintain		
Yes	29,754	66.0
No	15,316	34.0
Field of Certification		
Architecture and engineering	1,099	2.4
Computer networking and administration	577	1.3
Computer applications and design	519	1.1
Business/finance management	2,719	5.9
Administrative support	419	0.9
Nursing/nurse assisting	6,005	13.1
Other medical/health care	5,450	11.8
Cosmetology	1,668	3.6
Culinary arts	681	1.5
Protective services	1,035	2.3
Legal and social services	2,093	4.6
Education	7,691	16.7
Construction and manufacturing trades	3,222	7.0
Transportation and material moving	2,799	6.1
Public utilities	481	1.0
Other	9,565	20.8

Note: Nonrespondents are not included in estimates of alternative credentials.

Source: U.S. Census Bureau, Survey of Income and Program Participation, 2008 Panel, Wave 13.

Among people reporting an educational certificate, the majority (82 percent) reported that some type of educational institution awarded their credential (Table 8). At least 90 percent of certificate holders reported that it took longer than a month to earn the credential and that getting it mainly involved training from an instructor rather than self-study. Besides the “other” category, the most common fields of study were education (12 percent), nursing (10 percent), and health professions other than nursing (9 percent), showing there are similar common fields for educational certificates and professional certifications and licenses. While these data provide an interesting first glance at the characteristics of educational certificates, the developmental nature of the survey questions means these counts of educational certificates may include some credentials with little labor market value (such as those awarded by a nonprofit organization or that took less than 1 week to earn).

DISCUSSION AND CONCLUSION

People continually look for ways to improve their skill sets and abilities in order to make progress in the labor market and earn a living. While traditional educational attainment provides one route to a productive career, it is not the only path. Millions of people use alternative educational vehicles to obtain learning and skills that have real labor market value and

Table 8.

Characteristics of Educational Certificates

(Weighted, numbers in thousands)

Characteristic	Total	Percent
Type of School or Organization That Provided Certificate Program		
Community college	4,072	21.7
University or college other than community college	5,269	28.0
Trade, vocational, technical, or business school	6,051	32.2
Business or company	872	4.6
Professional organization	848	4.5
Trade union	207	1.1
Nonprofit organization	76	0.4
Federal, state, or local government	688	3.7
Military	155	0.8
Someplace else	566	3.0
Type of Training		
Mainly self-study	1,880	9.9
Mainly instructor	17,078	90.1
How Long Taken to Earn		
Less than 1 week	740	3.95
1 week to 1 month	981	5.24
More than 1 month	16,995	90.8
Field of Study		
Architecture and engineering	300	1.6
Communications technologies/technologists	241	1.3
Computer and information sciences	1,019	5.4
Engineering and related technologies	349	1.8
Business management	874	4.6
Business support	434	2.3
Marketing	73	0.4
Health professions, except nursing	1,681	8.8
Nursing	1,978	10.4
Health technologists and technicians	876	4.6
Health aides	597	3.1
Cosmetology	911	4.8
Culinary arts	262	1.4
Personal services (other than cosmetology and culinary arts)	226	1.2
Protective services	334	1.8
Public and social services (other than protective services)	376	2.0
Education	2,335	12.3
Construction trades	941	5.0
Manufacturing	206	1.1
Mechanic and repair technologies	1,022	5.4
Transportation and material moving	387	2.0
Other	3,596	18.9

Note: Nonrespondents are not included in estimates of alternative credentials.

Source: U.S. Census Bureau, Survey of Income and Program Participation, 2008 Panel, Wave 13.

returns. Among these are credentials such as professional certifications, licenses, and educational certificates. This report offers a glimpse into these components of education and training and how they fit into the larger structure of a capable twenty-first century workforce.

Our results show that about 25 percent of adults in the United States have a professional certification, license, or educational certificate. Race and sex differences in rates of these alternative credentials vary across regular education levels. The results also indicate that professional certifications, licenses, and educational certificates have labor market value, especially for those with low levels of education (i.e., below the bachelor's degree level) and people with professional degrees.

This report shows that many adults in the United States hold alternative credentials and that the likelihood of doing so varies across demographic and other characteristics. The estimates presented in this report represent the best measurement knowledge on this topic at this time. As the GEMEnA group continues to develop and improve survey questions for these topics, we hope to provide a more accurate and comprehensive picture of the full range of educational skills and training that define the workforce of the United States.

SOURCE OF THE DATA

The data in this report were collected from September through December 2012 during the thirteenth wave (interview) of the 2008 Panel of the Survey of Income and Program Participation (SIPP). The population represented (the population universe) in the 2008 SIPP is the civilian noninstitutionalized population living in the United States. The institutionalized population, which is excluded from the population universe, is composed primarily of the population in correctional institutions and nursing homes.

ACCURACY OF THE DATA

Statistics from surveys are subject to sampling and nonsampling error. All comparisons presented in this report have taken sampling error into account and are statistically significant at the 90 percent confidence level unless otherwise noted. This means the 90 percent confidence interval for the difference between the estimates being compared does not include zero. Nonsampling errors in surveys may be attributed to a variety of sources, such as how the survey is designed, how respondents

interpret questions, how able and willing respondents are to provide correct answers, and how accurately the answers are coded and classified. The U.S. Census Bureau employs quality control procedures throughout the production process, including the overall design of surveys, the wording of questions, the review of the work of interviewers and coders, and the statistical review of reports to minimize these errors.

The SIPP weighting procedure uses ratio estimation, whereby sample estimates are adjusted to independent estimates of the national population by age, race, sex, and Hispanic origin. This weighting partially corrects for bias due to undercoverage, but biases may still be present when people who are missed by the survey differ from those interviewed in ways other than age, race, sex, and Hispanic origin. How this weighting procedure affects other variables in the survey is not precisely known. All of these considerations affect comparisons across different surveys or data sources.

For further information on statistical standards and the computation

and use of standard errors, go to <[www.sipp.census.gov/sipp/sourceac/S&A08_W1toW11\(S&A-16\).pdf](http://www.sipp.census.gov/sipp/sourceac/S&A08_W1toW11(S&A-16).pdf)> or contact Stephen Mack of the U.S. Census Bureau's Demographic Statistical Methods Division via e-mail at <stephen.p.mack@census.gov>.

MORE INFORMATION

See these SIPP Web sites for additional information:

SIPP Home Page: www.census.gov/sipp

SIPP Quality Profile: www.census.gov/sipp/workpaper/wp230.pdf

SIPP User's Guide: www.census.gov/sipp/usrguide.html

CONTACTS

Contact the U.S. Census Bureau Customer Services Center at 1-800-923-8282 (toll free) or visit <ask.census.gov> for further information.

For additional questions or comments, contact Stephanie Ewert at 301-763-2464 or via e-mail at <Stephanie.Ewert@census.gov>.

APPENDIX A: QUESTIONNAIRE ITEMS FOR THE WAVE 13, 2008 SIPP TOPICAL MODULE ON PROFESSIONAL CERTIFICATIONS, LICENSES, AND EDUCATIONAL CERTIFICATES

Items on Certifications and Licenses

Q1. PROCERT Universe: People who are at least 16 years old [AGE≥16]

Do/Does you/he/she have a professional certification or a state or industry license?

Help text: A professional certification or license shows you are qualified to perform a specific job and includes things like Licensed Realtor, Certified Medical Assistant, Certified Construction Manager, a Project Management Professional, or PMP certification, or an IT Certification.

1. Yes [GOTO Q2]
2. No [GOTO Q10]

Intro text: The next set of questions refers to your most recent certification or license.

Q2. WHOPCERT Universe: 'Yes' on Q1

Who awarded this certification or license?

1. Federal government
2. State government
3. Local government
4. Industry
5. Business, company, or nonprofit organization
6. Professional association
7. Other

[GOTO Q3]

Q3. WHYPCERT Universe: 'Yes' on Q1

Did you/he/she get this certification or license mainly for work-related reasons or mainly for personal interest?

1. Mainly work-related
2. Mainly personal interest

[GOTO Q4]

Q4. FLDPCERT Universe: 'Yes' on Q1

What is the major subject or field of study for this certification or license?

1. Architecture and engineering
2. Computer networking and administration
3. Computer applications and design
4. Business/finance management
5. Administrative support
6. Nursing/nurse assisting
7. Other medical/health care
8. Cosmetology
9. Culinary arts
10. Protective services
11. Legal and social services
12. Education
13. Construction and manufacturing trades
14. Transportation and material moving
15. Public utilities
16. Other

[GOTO Q5]

Q5. JOBPCERT Universe: 'Yes' on Q1

Can this certification or license be used if you/he/she wanted to get a job with any employer in that field?

Help text: Certifications and licenses that are recognized state-wide should be recorded as 'yes'.

1. Yes
2. No

[GOTO Q6]

Q6. REQJOBPCERT Universe: 'Yes' on Q1

Is this certification or license required for your/his/her current or most recent job?

1. Yes
2. No
3. Not applicable (never worked)

[GOTO Q7]

Q7. TRNPCERT Universe: 'Yes' on Q1

Did you/he/she take courses or training to earn the certification or license?

1. Yes
2. No

[GOTO Q8]

Q8. EXAMPCERT Universe: 'Yes' on Q1

Did you/he/she have to demonstrate skills while on the job or pass a test or exam to earn the certification or license?

1. Yes
2. No

[GOTO Q9]

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Q9. CEDPCERT Universe: ‘Yes’ on Q1

Do/Does you/he/she have to take periodic tests or continuing education classes or earn CEUs to maintain the certification or license?

1. Yes
2. No

[GOTO Q10]

Items on Certificates

Q10. CERT UNIVERSE: People who are at least 16 years old [AGE≥16]

Some people decide to enroll at a college, university, community college, or trade school to earn a certificate rather than a degree. Have/Has you/he/she ever earned this type of certificate?

Help text: An educational certificate is typically earned by completing a program of study offered by a college or university, a community college, or a trade school, but it does not lead to an associate’s, bachelor’s or graduate degree. Sometimes these are also called vocational diplomas, for example, a cosmetology or mechanics diploma, which differs from a high school diploma.

1. Yes [GOTO Q11]
2. No [GOTO END]

Intro text: The next set of questions refers to your/his/her most recent completed certificate.

Q11. FLDCERT Universe: ‘Yes’ on Q10

What is the major subject or field of study for this certificate?

1. Architecture and engineering

2. Communications technologies/technologists

3. Computer and information sciences

4. Engineering and related technologies

5. Business management

6. Business support

7. Marketing

8. Health professions, except nursing

9. Nursing

10. Health technologists and technicians

11. Health aides

12. Cosmetology

13. Culinary arts

14. Personal services (other than cosmetology and culinary arts)

15. Protective services

16. Public and social services (other than protective services)

17. Education

18. Construction trades

19. Manufacturing

20. Mechanic and repair technologies

21. Transportation and material moving

22. Other

[GOTO Q12]

Q12. SCHLCERT Universe: ‘Yes’ on Q10

What type of school or organization provided the certificate program?

1. A community college
2. A university or college other than a community college
3. A trade, vocational, technical, or business school
4. Business or company
5. Professional organization
6. Trade union
7. Nonprofit organization
8. Federal, state, or local government
9. Military
10. Someplace else

[GOTO Q13]

Q13. STUDYCERT Universe: ‘Yes’ on Q10

Was the training for this certificate mainly self-study or mainly classes or courses with an instructor?

1. Mainly self-study
2. Mainly instructor

[GOTO Q14]

Q14. TIMECERT Universe: ‘Yes’ on Q10

How long did it take to earn this certificate?

1. Less than 1 week
2. 1 week to 1 month
3. More than 1 month

END OF TOPICAL MODULE