

Developing New Federal Survey Data on Credentials for Work

Sharon A. Boivin

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Background

- The need for better data on credentials (other than degrees) that have labor market value became apparent during the recession
- President's 2009 State of the Nation address called for every American to have at least one year of education or training beyond high school
- Interagency Working Group on Certificates and Certifications formed in fall of 2009

Interagency Working Group (IWG) Members

Bureau of Labor Statistics

Dori Allard

Harley Frazis

Tom Nardone (past)

Census Bureau

Stephanie Ewert

Bob Kominski

Council of Economic Advisors

Elizabeth Ananat (past)

Sarena Goodman (past)

Jessie Rothstein (past)

Chuck Pierret (past)

Chinhui Juhn

Dep of Ed Office of the Under Secretary

Jon O'Bergh

National Center for Education Statistics

Sharon Boivin

Sarah Crissey

Lisa Hudson

Kashka Kubzdela

Isaiah O'Rear

Matthew Soldner

Andy Zukerberg

National Science Foundation

John Finamore

Dan Foley

Office of Management and Budget

Shelly Martinez

Goals

- Measure prevalence of certificates and certifications
- Design a short series of survey items that can be used in federal statistical surveys
 - Improve measurement of subbaccalaureate educational attainment (certificates)
 - Begin counting certifications and licenses

Item Development Activities

- Expert input
- Review of literature and extant data sources
- Focus groups
- Cognitive interviews
- Pilot study

Definition of a Certificate

- A credential awarded by a training program or educational institution based on completion of coursework.
- A certificate is awarded once and carries no requirements for continuing education or repeated demonstration of knowledge.
- Certificates of attendance or participation are not in scope for this work.

Definition of a Certification

- A credential awarded by a certification body based on an individual demonstrating, through an examination process, that he or she has acquired the designated knowledge, skills, and abilities to perform a specific job.
- The examination can be written, oral, or performance-based.
- Certification is a time-limited credential that is renewed through a recertification process.

Key Focus Group Findings

- Participants' terminology and understanding of certifications was in line with the experts
- Certification and licensure are linked
- Participants interpreted the term "certificate" broadly when not given additional context or examples

Key Cognitive Interview Findings

- Respondents who have a certification or license easily report correctly about “professional certification” and “state or industry license”
- Respondents will report a certificate of completion as an educational certificate if no context or definition of a certificate is provided
- When certification is the process leading to licensure, the respondent uses the term “license”
- Respondents do not think about their industry-recognized certifications when answering about their educational attainment

Objective of the Pilot

- Test a small set of items developed to measure the prevalence of certifications and certificates among the US adult population

The Adult Training and Education Study (ATES)

Overview of Pilot Design

- Address-based sample
- Seeded sample
- Mail screener to obtain phone contact information
- Postcard reminder + 2 nonresponse follow-up mailings
- Telephone follow-up with a CATI instrument

Seeded Sample

- Opportunity sample of 1,250 respondents with known credentials
- Lists from states, accrediting bodies, community colleges
- Evaluate false negatives
- Same data collection procedures as main sample with minor modifications to personalize communication

Main Certification Item

Now I'd like to ask you about professional certification and licensure. Do you have a professional certification or a state or industry license?

Probe: 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.

Main Certificate Item

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

Probe: 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.

Pilot Study Analysis Goals

- Estimate overall percent of credential holders by type and by group (prevalence analysis)
- Analyze true positives from seeded sample to determine “key characteristics” of known credentials
- Determine incidence of underreporting (seeded sample) and overreporting (national sample)
- Completed cases: 3,743 (main) and 343 (seeded)

Table 1. Number and percentage of US adults who report holding certification(s)/license(s) or educational certificate(s): 2010

Characteristic	Number	Percent
Reported credential		
Either credential reported	82,348,000	37.5
Professional certification(s) or license(s)	65,324,000	29.8
Educational certificate(s)	29,901,000	13.6
No credential reported	137,076,000	62.5

SOURCE: U.S. Department of Education, National Center for Education Statistics, Adult Training and Education Survey (ATES), 2010-2011 Pilot Test.

NOTE: Figures represent weighted estimates. Respondents were able to select multiple credentials; therefore, details may not sum to totals.

Table 2. Comparison of estimates of percentage of US adults who report holding certification(s)/license(s) and educational certificates, by educational attainment

Respondent characteristic	Certifications/licenses		Certificates	
	PDII ¹	ATES	SIPP:08 ²	ATES
Total	34.4	37.8 *	18.1	15.1 *
Highest level of education				
Less than high school diploma	18.5	27.2	7.3	11.7 *
High school diploma	25.7	27.8	22.2	15.8 *
Some college	33.9	38.1	24.8	23.2
Associate's degree	†	†	34.3	24.3
Bachelor's degree	35.1	42.7 *	10.3	9.4
Graduate or professional degree	50.3	56.8 *	6.4	8.8 *

† Not available.

* observed difference is statistically significant at .05 level

¹ Princeton Data Improvement Initiative, 2009

² Survey of Income and Program Participation, 2008

SOURCE: U.S. Department of Education, National Center for Education Statistics, Adult Training and Education Survey (ATES), 2010-2011 Pilot Test. U.S. Department of Commerce, Census Bureau, Survey of Income and Program Participation (SIPP), 2008; Princeton Data Improvement Initiative (Kleiner and Kruger 2009).

NOTE: Figures represent weighted estimates. Data for certifications/licenses limited to those currently employed or looking for work. Data for certificates limited to those who reported an income or earnings in the previous year.

Table 3. Underreporting of credentials in the ATEs seeded sample: 2010

	Underreporting Rates	
	Certifications/licenses	Certificates
Total	15.0	50.0
Type of certification		
Certification	17.1	†
License	13.7	†
Age		
18 to 34 years	19.0	48.4
35 to 64 years	11.6	48.4
65 years and over	29.2	80.0
Employment industry		
Private company	15.4	46.2
Government, non-profit, or self-employed	6.9	30.0 to 50.0
Not employed	45.8	62.5

† Not available

SOURCE: U.S. Department of Education, National Center for Education Statistics, Adult Training and Education Survey (ATES), 2010-2011 Pilot Test.

NOTE: Figures represent unweighted estimates. Observations with missing data for a given variable are excluded. Includes self-reported data only; data completed by proxy respondents were excluded from the analysis. Detail may not sum totals because of rounding.

Overreporting

- *True* certifications/licenses have three key characteristics:
 - Work-related (CN6)
 - Require a demonstration of skills while on the job or passing a test or exam (CN10a/b)
 - Can be used to get a job in that field (CN15b)
- Overreporting occurs when a respondent claims to have a certification/license but the credential does not have these three key characteristics.

Table 4. Overreporting of certifications/licenses in the ATES national sample: 2010

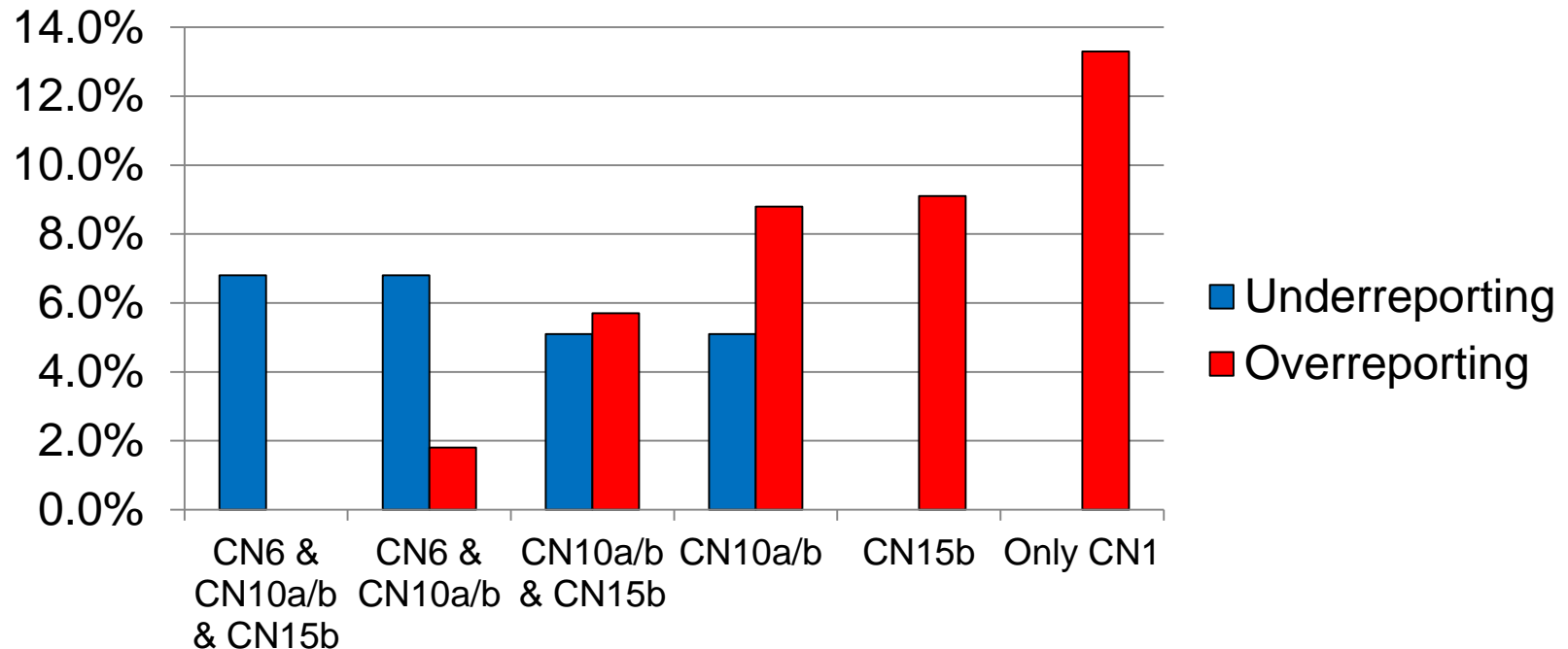
Bin Factors	% certifications/licenses miscategorized as overreports in seeded sample	% of certifications/licenses overreported in national sample
<u>All Three Items</u>		
CN6: CN was work related AND		
CN10a/b: CN required demonstration of skills while on the job or passing a test or exam AND		
CN15b: CN could be used to get a job with any employer in that field.	6.8%	0.0%(by definition)
<u>Two Items</u>		
CN6 AND CN10a/b	6.8%	1.8%
CN6 AND CN15b	‡	2.0%
CN10a/b AND CN15b	5.1%	5.7%
<u>Single Item</u>		
CN6	‡	6.9%
CN10a/b	5.1%	8.8%
CN15b	0%	9.1%
Only CN1: Report Certification/License	N/A	13.3%

‡Data suppressed because reporting standards were not met for disclosure.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Adult Training and Education Survey (ATES), 2010-2011 Pilot Test.

NOTE: Figures represent unweighted estimates. "CN" refers to certifications and licenses.

Trade-offs using key characteristics



IWG Conclusions and Recommendations

- The main certification item is valid for measuring the prevalence of certifications/licenses in the US adult population.
- Additional certification items can provide more detail or more precision in the estimate.
- Results for certificate items are too inconclusive to make any recommendations about their use.

Next Steps on Certifications/Licenses

- Census:
 - Using certification items in field test of redesigned SIPP
 - Fielding a credential module in the last wave of the 2008 SIPP panel (fall 2012, available fall 2013)

Topical module available at:

http://www.reginfo.gov/public/do/PRAViewIC?ref_nbr=201202-0607-002&icID=182115

Next Steps on Certifications/Licenses-cont.

- NCES:
 - Incorporating certification items into longitudinal studies with out-of-school youth and adult respondents
 - Evaluating response rates for a new household study on adult education and training
 - Linking credentialing data to adult literacy scores
- BLS
 - Considering options for adding certification questions to CPS

Next Steps on Certificates

- Further developmental work with new national and seeded samples
- IPEDS working group on certificate reporting
- Oversampling certificate students in the Beginning Postsecondary Students Study of 2012

New Horizons

An expanded charge to improve federal statistical measures on the education and training that adults participate in to acquire job skills.

Interagency Working Group on Expanded
Measures of Enrollment and Attainment
GEMEna

For More Information

Boivin, S. and O'Rear, I. "Measurement Strategies for Identifying Holders of Certificates and Certifications," Paper presented at the Federal Committee on Statistical Methodology conference, January 2012.

http://www.fcsm.gov/12papers/Boivin_2012FCSM_VII-B.pdf

Bielick, S., Cronen, S., Stone, C., Montaquila, J., and Roth, S. *The Adult Education Training and Education Survey (ATES) Pilot Study: Technical Report* (NCES 2013-190). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. (forthcoming)

Contact Information

Sharon A. Boivin, Ph.D.
Acting Associate Commissioner for
Postsecondary, Adult, and Career Education
National Center for Education Statistics
202-502-7627
sharon.boivin@ed.gov