

# ADDING QUESTIONS ON CERTIFICATIONS AND LICENSES TO THE CURRENT POPULATION SURVEY MARCH 2016

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## **Abstract**

While there are many sources of federal data on educational attainment, there is much more limited information on nondegree credentials, such as professional certifications and state or industry licenses. Including a small set of questions about certifications and licenses on the Current Population Survey (CPS)—the source of the labor force statistics, including the official unemployment rate, that are published every month by BLS—would add valuable information about the labor market and would enable researchers and policy makers to examine how these types of credentials affect labor market success. After a lengthy development process, three questions on certifications and licenses were added to the monthly CPS in January 2015. This paper will describe the process of developing the CPS questions, starting with the early work on question development done by the Interagency Working Group on Expanded Measures of Enrollment and Attainment (GEMEnA), which was formed late in 2009. It will then describe the work done by BLS to adapt the questions developed by GEMEnA to the CPS, the development and acceptance of a proposal to add the questions, and the fielding of the questions.

## **Introduction**

There are many sources of federal data on educational attainment. These measures generally use the traditional educational attainment categories, which range from less than a high school diploma through a bachelor's degree or higher. However, there are many other credentials that appear to be valuable in the labor market, such as professional certifications and state or industry licenses. Until recently, there were few federal sources of data on these types of credentials.

In response to the increased interest in data about alternative credentials, the Interagency Working Group on Expanded Measures of Enrollment and Attainment (GEMEnA) was formed late in 2009. GEMEnA is chaired by the Department of Education's National Center for Education Statistics (NCES). Over the years, members have included senior staff from the Bureau of Labor Statistics (BLS), the Census Bureau, the Council of Economic Advisors, the Department of Education's Office of the Under Secretary, the National Center for Science and Engineering Statistics, and the Office of Management and Budget (OMB). GEMEnA has worked on a variety of education- and credential-related subjects, including certifications and licenses.<sup>1</sup>

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<sup>1</sup> For more information about the GEMEnA group, see <http://nces.ed.gov/surveys/GEMEnA/>.

Two of GEMEnA’s main goals were:

- To develop a limited set of questions to measure the prevalence and key characteristics of nondegree credentials, such as certifications and licenses. These questions could then be placed on existing federal household surveys.<sup>2</sup>
- To develop a common vocabulary for nondegree credentials among federal statistical agencies, federal programs, and state data systems. This would allow people to better communicate about the data.

In 2009, President Obama called for Americans to commit to achieving at least one year of higher education or career training,<sup>3</sup> and, as a result, GEMEnA concentrated its initial research efforts on sub-baccalaureate certifications and licenses. Over time, however, GEMEnA expanded its scope to include certifications and licenses at all educational levels.

This paper will describe the process of developing the questions on certifications and licenses for the Current Population Survey (CPS),<sup>4</sup> starting with the early work on question development done by the GEMEnA group. It will then describe the work done by BLS to adapt the questions to the CPS, the development and acceptance of a proposal to add the questions, and the fielding of the questions.

### Defining Certifications and Licenses

GEMEnA began its work on certifications and licenses by conducting a literature review, consulting with subject-matter experts, and reviewing the questions about these credentials that existed on a variety of non-federal surveys. After these efforts, the group identified two distinct types of credentials that are commonly referred to as certifications or licenses: (1) those that are awarded by a certification body and reflect the acquisition of a level of skill in an occupation but do not convey a legal authority to work in that occupation, and (2) those awarded by a governmental body that convey a legal authority to work in an occupation. Because there was some confusion about how the two terms were used, GEMEnA created working definitions for certifications and licenses. These definitions were a first step in developing the common language to better discuss these credentials.

Certification	<ul style="list-style-type: none"><li>■ A credential awarded by a non-governmental certification body based on individuals demonstrating, through an examination process, that they have acquired the designated knowledge, skills, and abilities to perform a specific job. The examination can be written, oral, or performance-based.</li><li>■ Does not convey a legal authority to work in an occupation.</li><li>■ A time-limited credential that is renewed through a recertification process.<sup>5</sup></li><li>■ Examples: information technology certification and project management professional certification.</li></ul>
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<sup>2</sup> Realizing that adding a limited set of questions to large national household surveys could not address all of the many questions about certifications and licenses, GEMEnA also worked to develop a more extensive survey for more in-depth analysis to be administered by NCES.

<sup>3</sup> U.S. President Barack Obama, Address to Joint Session of Congress, February 24<sup>th</sup>, 2009. See [https://www.whitehouse.gov/the\\_press\\_office/Remarks-of-President-Barack-Obama-Address-to-Joint-Session-of-Congress/](https://www.whitehouse.gov/the_press_office/Remarks-of-President-Barack-Obama-Address-to-Joint-Session-of-Congress/).

<sup>4</sup> For more information about the CPS, see the BLS website at [www.bls.gov/cps](http://www.bls.gov/cps).

<sup>5</sup> Some certifications are time-limited but do not have a recertification process. For example, many information technology certifications are for a specific software that becomes obsolete when it is replaced with a newer version.

License	<ul style="list-style-type: none"> <li>■ A credential awarded by a governmental licensing agency based on pre-determined criteria. The criteria may include some combination of degree attainment, certifications, educational certificates, assessment, apprenticeship programs, or work experience.</li> <li>■ Conveys a legal authority to work in an occupation.</li> <li>■ A time-limited credential that must be renewed periodically.</li> <li>■ Examples: cosmetology license and teacher’s license.</li> </ul>
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GEMEnA also investigated a third type of nondegree credential—educational certificates. According to GEMEnA definitions, educational certificates, which are awarded by an educational institution based on completion of all requirements for a program of study, are not the same as certifications and licenses. GEMEnA’s background research showed that certifications and licenses are quite distinct from educational certificates. Certifications and licenses are job or occupational requirements that demonstrate that the holder has the authority or skill qualifications that are needed to perform specific job duties. By contrast, educational certificates are awarded to show completion of a program of study; while this training may help in the performance of a specific job, educational certificates are not necessarily required or considered proof of qualification. <sup>6</sup> Like educational certificates, certificates of attendance or participation in short-term training are also considered to be different from certifications and licenses.

### **GEMEnA Focus Groups and Cognitive Testing**

After developing definitions of certifications and licenses, GEMEnA decided that some exploratory qualitative research would be very helpful. In December 2009, NCES funded three focus groups in the Washington, DC area about nondegree credentials. Reflecting GEMEnA’s early interest in sub-baccalaureate certifications and licenses, the focus group participants were age 21 to 40 and had at least a high school diploma (or GED) but did not have a bachelor’s degree. Two of the focus groups were with people who said they were certified, registered, or licensed in a health care, information technology, or business field. A third focus group was made up of individuals who said they had a certification in another field or who were interested in obtaining a certification. <sup>7</sup>

In 2010, NCES also funded three rounds of cognitive testing (60 interviews total) to determine whether people could answer questions about nondegree credentials. Participants included individuals with certifications or licenses as well as those without these credentials. Because of the concern that there might be regional differences, the interviews were conducted with people in three different areas: Washington, DC; Charlotte, NC; and Minneapolis, MN. Respondents were age 21 to 40. The first round

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<sup>6</sup> *Educational certificates* are defined by GEMEnA as credentials awarded by an educational institution—such as a community college, another type of college or university, or a trade school—based on completion of all requirements for a program of study, including coursework and test or other performance evaluations, and are not time-limited. Examples of these types of credentials include a digital arts certificate from an online university or a motorcycle mechanics diploma from a community college. Most educational certificates are awarded at the sub-baccalaureate level, and a small number are awarded after the completion of a postsecondary degree. Individuals may enroll in an educational certificate program to gain the knowledge needed to attain a certification, which may be required prior to applying for a license. For more information about educational certificates, see the Adult Training and Education Survey (ATES) Pilot Study Technical Report, April 2013, <http://nces.ed.gov/pubs2013/2013190.pdf>.

<sup>7</sup> For detailed information about the focus groups, see Appendix F of the ATES Pilot Study Technical Report, April 2013, <http://nces.ed.gov/pubs2013/2013190.pdf>.

of testing concentrated on certifications and licenses, the second on educational certificates, and the third on both types of credentials.<sup>8</sup>

In general, the focus groups and cognitive testing confirmed that respondents were aware of their certifications and licenses and were able to answer questions about them. For many, these types of credentials were necessary for their jobs, either because the law or their employer required them. Particularly in some occupations, respondents often had more than one of these credentials. Also, respondents did not confuse these credentials with the traditional educational attainment categories, often closely associating certifications and licenses with their work.

Because of the interest in distinguishing between certifications and licenses, GEMEnA investigated the possibility of asking respondents to identify their credentials as either a certification or a license. However, in both the focus groups and the cognitive interviews, some participants found it difficult to distinguish between “certifications” and “licenses,” with a few saying that they thought the two terms were synonymous. Many factors contribute to this confusion. In some fields, certification is a prerequisite for applying for a license—such as a financial planner who must first become a certified financial planner before applying for a license through a state board of standards. The reverse is also true in some fields—that is, the individual must first obtain a license before becoming certified; for example, a realtor may need to get a license before being certified in a specialization area. In addition, in some fields, both “certification” and “license” may be used to refer to the same type of credential. For example, all states have credentialing requirements for public school teachers, which are variously referred to as teaching licenses, certifications, credentials, or certificates. However, while state requirements vary, all of these credentials are issued by a governmental agency and convey a legal authority to teach school. Thus, according to GEMEnA definitions, these credentials are considered licenses.

Rather than asking about certifications and licenses separately, GEMEnA decided to test whether the two types of credentials could be asked about together. In the third round of cognitive testing, both the terms “certification” and “license” were used in the same question—that is, people were not asked to distinguish between the two but simply to indicate yes or no as to whether they had a “certification or license.” This approach was found to work well.<sup>9</sup>

### **The Adult Training and Education Survey Pilot Study**

The 2010 Adult Training and Education Survey (ATES) Pilot Study was a 15-minute mail and telephone survey sponsored by NCES that was fielded from September 2010 to January 2011. A major goal of this study was to evaluate proposed questions on certifications and licenses.<sup>10</sup> The pilot study was designed to evaluate estimates generated from the questions, investigate the extent of measurement error, and determine whether proxy respondents could accurately answer the questions.

*Evaluating the estimates.* The pilot contained a nationally representative sample of 3,730 adults age 18 and over. Although the pilot was never intended to provide official population estimates, weights were developed so that nationally representative estimates could be generated. While no federal data on certifications and licenses existed, there have been periodic attempts to measure the numbers of people

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<sup>8</sup> For detailed information about the cognitive testing, see Appendix G of the ATES Pilot Study Technical Report, April 2013, <http://nces.ed.gov/pubs2013/2013190.pdf>.

<sup>9</sup> Over the years, there have been a number of additional focus groups and cognitive testing efforts that have included questions about certifications and licenses. These have supported the findings in the original GEMEnA focus group and cognitive testing reports.

<sup>10</sup> The ATES Pilot Study also included questions about educational certificates. For more information, see the ATES Pilot Study Technical Report, April 2013, <http://nces.ed.gov/pubs2013/2013190.pdf>.

with certifications or licenses in non-federal surveys. Pilot study estimates were compared to estimates from the Princeton Data Improvement Initiative (PDII), a survey that had been conducted in 2008 and included questions on occupational licensing. In order to create comparable estimates, the ATES and PDII samples were restricted to employed adults. According to the ATES, 38 percent of employed adults had a certification or license, compared with 34 percent for the PDII. Although these estimates are not identical, the difference is relatively small, especially given that the two surveys were conducted two years apart and had a number of differences in their questionnaires. GEMEnA concluded that estimates from the ATES questions were reasonable as compared with previous data collection efforts.

*Measurement error.* The ATES included a seeded sample of 340 adults, some of whom were reported by a credentialing body to have received a certification or license.<sup>11</sup> The seeded sample contained people in the following certified or licensed occupations: alcohol and drug counselor or aide; health technician, specialist, or sonographer; pharmacy technician; electrical aide; plumber; HVAC technician; and fuel technician. This seeded sample was included specifically to evaluate how well respondent answers lined up with the administrative data, allowing for the calculation of underreporting rates.

#### **Underreporting of certifications and licensures**

	Underreporting rate
Total	15.0
Age	
18 to 34 years	19.0
35 to 64 years	11.6
65 years and over	29.2
Employment status	
Employed – private company	15.4
Employed – government, non-profit, or self-employed	6.9
Not employed	45.8
Type of credential	
Certification	17.1
License	12.7

While the underreporting rates vary for different groups, there are few statistically significant differences across different subgroups. A multivariate analysis showed that differences in underreporting rates are driven, in part, by employment status, with employed people being most likely to accurately report that they have a certification or license. This may reflect the fact that a certification or license could be more meaningful for people who are employed and who have these credentials for work-related reasons. Those who have credentials but are not employed—the majority of whom are not looking for work—may not view them as relevant and may thus be less likely to report them. Also, while considerable effort was made to find current and accurate administrative records for the seeded sample, the measurement error associated with these records is unknown. It is possible that some reporting differences could be due to

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<sup>11</sup> All those in the seeded sample were known to have a nondegree credential. However, some of those in the seeded sample had educational certificates rather than certifications or licenses.

errors in the seeded sample frame. After taking all of these factors into account, GEMEnA determined that the underreporting rates in the pilot were within acceptable ranges.<sup>12</sup>

*Proxy responses.* Many federal household surveys use proxy respondents—that is, respondents who provide information about other members of their households. Thus, a key factor in developing questions to include on existing surveys was to determine whether respondents could answer the questions about others in their households. In order to evaluate the questions for proxy respondents, the 2010 ATEs Pilot Study, in a subsample of about 1,000 households with 2 or more adults, asked adults to report about other adults in their household. The study did not include multiple respondents from the same households, so direct comparisons between self- and proxy-responses about individuals could not be done. Instead, GEMEnA compared the frequencies of self and proxy responses to determine whether there were large differences in the incidence of “don’t know” responses. High rates of nonresponse among proxies might lead to bias in the survey estimates and would mean the questions were unsuited to surveys relying on proxy respondents. However, nonresponse rates for proxy respondents were fairly low for the main certification and license questions, and GEMEnA determined that proxy reporting was acceptable for these questions.<sup>13</sup>

*Final recommendations.* After all of the ATEs results had been examined, GEMEnA made several recommendations. Because most federal household surveys—particularly large surveys like the CPS—could add no more than a few questions due to cost constraints and concerns about increasing respondent burden, GEMEnA recommended only a small number of questions. They suggested that surveys include the following:

- The broad question about certifications and licenses used in ATEs, which GEMEnA determined worked well.
- A question to distinguish between certifications and licenses. Certifications are issued by industry or professional organizations, while licenses are issued by government agencies.
- A question to determine the field of the certification or license. However, GEMEnA recognized that surveys with little available space for new questions might have to limit collection of this information, particularly in the case of individuals with multiple certifications or licenses.
- A question to determine whether the certification or license is related to an individual’s work.<sup>14</sup>

### **Fielding the GEMEnA questions**

A number of federal surveys have added GEMEnA questions on certifications and licenses. The first federal survey to include questions developed by GEMEnA was the Survey of Income and Program Participation (SIPP). In the autumn of 2012, nine questions on certifications and licenses were added to the 13<sup>th</sup> wave of the 2008 SIPP. These included the main questions recommended by GEMEnA, as well

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<sup>12</sup> Further GEMEnA studies have also included seeded samples. Underreporting rates of the number of certifications and licenses from the later studies are consistent with the ATEs.

<sup>13</sup> More detailed questions about certifications and licenses, such as the credential name and the year the credential was awarded, were not found to work for proxy respondents.

<sup>14</sup> Two other pilot studies were conducted that included certification and license questions: the 2013 National Training and Education Survey (NATES) Pilot Study and the National Household Education Survey (NHES) Feasibility Study in the 2014 ATEs. These pilot studies had similar findings.

as questions about whether coursework was required to earn the credential, the main reason for obtaining the credential, and whether the credential could be used to get a job with any employer in the field.<sup>15</sup>

After the SIPP had been fielded, the questions were proposed for a number of other federal household surveys, such as the National Science Foundation’s National Survey of College Graduates and several NCES surveys. The number of questions each survey could include varied according to the goals of the survey and how much of the questionnaire could be devoted to the topic.<sup>16</sup>

With the success of the questions, BLS, the Census Bureau, NCES, and GEMEnA members began to consider whether the questions would be a valuable addition to the CPS.

### **The Current Population Survey**

The CPS is a survey of approximately 60,000 eligible households that is jointly sponsored by BLS and the Census Bureau. It is the source of the labor force statistics, including the official unemployment rate, that are published every month by BLS. Including a small set of questions about certifications and licenses would add valuable information about the labor market and would enable researchers and policy makers to examine how these types of credentials affect labor market success. Statistics about certifications and licenses could be broken out by a variety of demographic and labor force characteristics—such as race and ethnicity, educational attainment, and employment status—and these estimates would be comparable to official unemployment rates and other key labor market indicators. Earnings of those with and without certifications could also be compared.

The core part of the survey is referred to as the monthly CPS (or the basic CPS). Households are in the survey for eight months total on what is referred to as a 4-8-4 rotation—that is, they are in the sample for 4 months, out of the sample for the next 8 months, and back in the sample for the following 4 months. For example, a household that was scheduled to be interviewed for the first time in April would also be contacted in May, June, and July. The household would then be out of the sample for the next 8 months and would return to the sample the following April, May, June, and July.

In addition to the monthly CPS, there are periodic CPS supplements. Supplements are sets of questions, generally taking no longer than 10 minutes to administer, on a specific topic that is given in one particular month of the CPS. The best known of the supplements is the Annual Social and Economic Survey (ASEC), also sometimes referred to as the “March supplement;” this supplement is the source of the poverty rate, as well as other income and health insurance statistics published annually by the Census Bureau.

An immediate question was where to add questions. Likely CPS supplement candidates were quickly narrowed down to two: the ASEC and the October School Enrollment supplement.<sup>17</sup> Another alternative was to add the questions to the monthly CPS. Each of the three candidates had advantages and disadvantages, as detailed below.

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<sup>15</sup> Stephanie Ewert and Robert Kominski, Measuring Alternative Educational Credentials: 2012, January 2014, <http://www.census.gov/prod/2014pubs/p70-138.pdf>.

<sup>16</sup> A list of federal household surveys that include questions on certifications is available on the GEMEnA website at <http://nces.ed.gov/surveys/gemena/surveys.asp>.

<sup>17</sup> The School Enrollment supplement has been sponsored by NCES, BLS, and Census since the late 1960s.

	Advantages	Disadvantages
ASEC	<ul style="list-style-type: none"> <li>The ASEC contains detailed income data, and one key research question is how certifications and licenses affect income.</li> </ul>	<ul style="list-style-type: none"> <li>The ASEC is by far the longest of all CPS supplements. Adding questions would make it even longer and further increase the burden on respondents. This would severely limit the number of questions that could be included. Data users might not find a small set of questions sufficient for analytical needs.</li> <li>Analysis of detailed subgroups would be limited due to the relatively small sample size.</li> </ul>
School enrollment supplement	<ul style="list-style-type: none"> <li>Because the supplement is fairly short, a more extensive set of questions about certifications and licenses could be included.</li> </ul>	<ul style="list-style-type: none"> <li>The supplement does not contain information about income and thus could not be used to answer key research questions on that topic.</li> <li>Questions about certifications and licenses might not work well in the supplement because the cognitive task of reporting about enrollment might be too different from that of reporting about nondegree credentials.</li> <li>Analysis of detailed subgroups would be limited due to the relatively small sample size.</li> </ul>
Monthly CPS	<ul style="list-style-type: none"> <li>Adding questions to the monthly CPS would create a monthly time series, allowing for an examination of cyclical trends, as well as long-term trends.</li> <li>Information on certifications and licenses could be linked to data collected in any CPS supplement, including income data from the ASEC and information from the School Enrollment Supplement.</li> <li>Because the CPS is asked each month, the data can be pooled across months to increase sample size. This would allow for more detailed examination of subgroups.</li> </ul>	<ul style="list-style-type: none"> <li>Because the survey is given every month, questions are added very rarely due to the increase in respondent burden. Only a very small set of questions could be added, and data users might not find such a small set sufficient for analytical needs.</li> </ul>

All agreed that the monthly CPS was the most desirable option for the questions. This was largely due to fact that it provided the greatest flexibility: it would provide monthly data suitable for cyclical analysis;

would allow for analysis of the income data on the ASEC; and could be linked to any other supplement, including the School Enrollment supplement.

However, there were considerable challenges to adding questions to the monthly CPS. Changes are made much more frequently to CPS supplements and only very rarely to the monthly CPS. In general, both BLS and the Census Bureau are very reluctant to increase the length of the monthly survey. Doing so not only increases respondent burden but could make breakoffs in a given month or refusals in future months more common. In addition, there is always the possibility that a change in the monthly survey could adversely affect responses to other questions, including those related to unemployment. While perhaps unlikely, BLS and Census take great care to ensure that changes to the monthly CPS do not affect the unemployment rate and other key statistics. Also, BLS did not have funding available to pay the ongoing costs of permanently increasing the overall length of the survey. Therefore, both BLS and Census agreed that only a limited set of questions could be added, and that if questions were added, some existing questions would have to be removed to limit the increase in cost and respondent burden.

### **Identifying questions to add to CPS**

A series of discussions about the questions occurred with BLS, Census, and GEMEnA. Three questions were proposed for addition.

1. A question to *identify certifications or licenses*. This is the main question recommended by the GEMEnA group and has been shown to reliably identify individuals who have these credentials. Since the monthly CPS is primarily a labor force survey, it was important to capture this information for both the employed and the unemployed. This would enable BLS to produce a variety of labor force statistics, including unemployment rates.
2. A question *identifying whether the credential was issued by the federal, state, or local government*. The intent of this question is to determine the issuing authority of a credential, and thus, to distinguish between certifications and licenses. According to GEMEnA definitions, licenses are issued by a governmental body.
3. A question to *determine whether the certification or license was needed for the current job*. In this question, “required” can mean either legally required (such as a license to practice medicine) or required by the employer (such as an information technology certification). People may have credentials that they do not use for their current job, such as a computer technician who obtained a realtor’s license for personal interest or for a second job. Also, people sometimes have certifications or licenses that may be helpful for their jobs but are not required by law or by their employer.

Two other questions were briefly considered:

1. A question about *how long the individual had held a credential*. GEMEnA had not yet tested and approved the wording of such a question. BLS survey methodologists were concerned about the possibility of recall bias, particularly among proxy respondents. Therefore, considerable work would have to be done to develop an acceptable question and would likely have delayed implementation.
2. A question about *the field of the certification or license*. While GEMEnA had tested versions of this question, all were too long for the monthly CPS. Additionally, Census staff would have to review respondents’ answers and code them into a set of predetermined categories. This would be time-consuming and labor-intensive, making such a question prohibitively expensive. Also, for

those certifications or licenses needed for individuals' jobs, the broad topic of the credential could be inferred from the information on occupation and industry already collected in the monthly CPS.

Because of these concerns, as well as concerns about increasing respondent burden and survey costs, BLS and Census determined that it was not practical to add either of these questions.

### **Identifying questions to remove from CPS**

As previously mentioned, BLS and Census wished to limit the increase in the length of the survey and the corresponding increase in respondent burden. Therefore, both agencies agreed that if questions on certifications and licenses were added, some questions would also have to be removed.

After an evaluation of the CPS questionnaire, three educational attainment questions were identified for possible removal. These educational attainment questions had been added to the CPS in 1996 and were designed to allow researchers to construct a measure of continuous years of education as an alternative to degree-based measures, but the questions were little used. Data from these questions had never been published by BLS, and a literature review found very few publications using the questions, even though variables derived from the questions had been included on the CPS public use microdata files for many years.

The educational attainment questions proposed for removal were as follows:

1. Since completing your Bachelor's degree, have you ever taken any graduate or professional school courses for credit? [Asked of people whose highest educational attainment was a bachelor's degree]
2. Did you complete six or more graduate or professional school courses? [Asked of people who responded "yes" to the previous question]
3. Was your Master's Degree program a 1-year, 2-year, or 3-year program? [Asked of people whose highest educational attainment was a master's degree]

### **Developing the proposal**

BLS formed a committee of CPS subject matter experts, survey methodologists, and research economists to develop a proposal to add questions on certifications and licenses to the monthly CPS. In addition to relying on internal expertise, BLS also consulted with GEMEnA and the GEMEnA expert panel. Broadly speaking, this proposal was to add 3 questions on certifications and licenses and remove the three little-used questions on educational attainment, but many details needed to be worked out, such as question wording, placement, and frequency.

*Question wording.* For all three questions, BLS started with the question wording recommended by GEMEnA. After review by BLS survey methodologists, subject matter experts, and GEMEnA members, a few minor revisions were made to make the questions work in the context of the CPS. Specifically, because the CPS is collected through personal interviews and telephone interviews, respondents answer for themselves and for other members of their households. A number of wording changes needed to be made in order to accommodate proxy respondents.

On the first question, the most notable change was that a sentence was added to the first question about business licenses. This was done because in the SIPP, people whose businesses required licenses (such as

liquor licenses) sometimes answered that they had a license. Also, some clarifications were made to the text that the interviewer could “read if necessary.” In addition, the GEMEnA group suggested some minor refinements to the question text. Final wording of the first question is as follows:

1. Do (you/name) have a currently active professional certification or a state or industry license? Do not include business licenses, such as a liquor license or vending license.

*(Read if necessary: A professional certification or license shows you are qualified to perform a specific job. Examples include a realtor license, a medical assistant certification, a Teacher’s License or an IT certification. Only include certifications or licenses obtained by an individual.)* [Asked of people age 16 and over]

For the second question, a change was made to accommodate respondents with more than one certification or license. The original question wording was to ask “was *it* issued by the federal, state, or local government.” For people with multiple certifications or licenses, such a question would be confusing, especially if the answer was different for different credentials. GEMEnA and the GEMEnA expert panel decided it was most important to find out if the respondent had at least one license. As they recommended, the second question was modified to allow for the situation that a person has more than one certification or license. Instead of “was *it* issued by...”, the question wording was modified to “were *any* of your certifications or licenses issued by...” to allow for the possibility of multiple credentials:

2. Were any of (your/his/her) certifications or licenses issued by the federal, state, or local government? [Asked of people who responded “yes” to the previous question]

For the third question, modifications to the text were made for two reasons. First, like the second question, the third question required some modifications to wording for people who had multiple credentials. Second, CPS subject matter experts decided that it was important to ask the third question of the unemployed about their past jobs. This is consistent with other labor force questions, such as industry and occupation, and allows for an examination of the unemployed who have previously worked. The wording had to be modified for these individuals to make it clear that it was their previous job that was being asked about. The final wording of the third question is as follows:

3. Earlier you told me (you/name) had a currently active professional certification or license. Is (your/his/her) certification or license required for (your/his/her) (job/main job/job from which you are on layoff/job at which you last worked)? [Asked of people who were employed and those who were unemployed but had previously worked]

Note that the wording differs by individuals’ labor force status. For example, people who are employed at only one job are asked about their job, while multiple jobholders are asked about their main job. Likewise, unemployed individuals who are on layoff are asked about the job from which they are on layoff, and unemployed individuals who previously worked are asked about their last job.

*Question placement.* The CPS has a long and complex questionnaire, and so another task for the BLS working group was to determine where best to place the questions. It was important that the questions not confuse respondents or interfere with responses to other questions. Because results from GEMEnA focus groups had shown that people didn’t necessarily regard certifications and licenses as related to educational attainment but rather as credentials for their jobs, the team evaluated whether they would be most appropriate next to other job-related questions.

After consideration, BLS decided that placing the first two questions after the educational attainment questions made the most sense. The primary reason behind this decision was that it was important to

obtain information for these two questions for all individuals, not just those who were employed. Unlike the job-related questions, the educational attainment questions are asked of everyone. The third question, which asked specifically about whether the credential was for the respondent's job, did belong among other job-related questions.

*Question frequency.* BLS also needed to determine how often the questions should be asked. Some questions on the CPS are asked only once because the requested information is unlikely to change, such as questions about race, ethnicity, and foreign- or native-born status. By contrast, questions on labor force status are asked every month because the primary purpose of the monthly CPS is to track employment and unemployment characteristics in the country, and it is vital that this information is as current as possible. Other questions are asked with varying periodicity; for example, educational attainment is asked of people in their first and fifth interviews but also in July, October, and February. Questions about disability are asked in the first and fifth interviews.

After consultation with GEMEnA and the GEMEnA expert panel, BLS determined that whether or not a person has a certification or license is not likely to change much from month to month. In order to limit the addition to respondent burden, BLS proposed that the questions be asked only in the first and fifth month that a household is in sample. A further reason for not asking the questions more often was the desire to limit the increase in the length of the survey.

### **Evaluating the proposal**

Evaluation of the proposal took several months and included cognitive testing by BLS survey methodologists. It also involved considerable stakeholder outreach by both GEMEnA and BLS.

*Cognitive testing.* The questions on certifications and licenses had been thoroughly tested through the GEMEnA work. However, BLS staff felt that it was important to test the questions within the CPS to ensure that they worked as expected. Specifically, the cognitive testing sought to:

- test the placement of the questions
- test the minor wording changes that had been made to the questions
- determine whether it was likely that the new questions would impact existing CPS questions
- determine if introductory or transition language is necessary before the certification questions
- determine if interviewer instructions or help screens are necessary to explain the key concepts

About 25 cognitive interviews were conducted. Respondents included individuals who had certifications or licenses as well as those who did not. The testing did not reveal any problems with the proposed placement or wording of the questions. Also, the cognitive testing did not find evidence of major context effects. Since adding transition language would lengthen the survey and respondents did not appear to have any difficulty understanding the questions without such language, the cognitive testing report recommended against adding transition language. The report did recommend that interviewers be trained on the objectives of the new questions.<sup>18</sup>

*Stakeholder outreach.* A great deal of outreach on the CPS proposal was done through GEMEnA. The proposal was presented to the GEMEnA expert panel at their annual meeting, and GEMEnA members presented the proposal to a variety of governmental and non-governmental groups. As an agency particularly concerned with measures of educational attainment, NCES was also consulted.

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<sup>18</sup> For more information on the cognitive testing, see Appendix H of the 2014 Office of Management and Budget clearance for the CPS.

BLS also reached out to key stakeholders. Specifically, BLS sought to learn whether stakeholders thought the questions would be a valuable addition to the survey, whether the removal of the three educational attainment questions was an acceptable price to pay, and whether they thought BLS should proceed with the proposal.

The proposal was also presented to the BLS Technical Advisory Committee. Informally, BLS also contacted key stakeholders who might have an interest in the educational attainment questions proposed for removal. The new questions were also reviewed and cleared by the Office of Management and Budget, and the clearance process included two periods of public comment. Feedback to the proposal was almost exclusively favorable.

### **Collection of data**

Because stakeholder feedback was quite positive and the cognitive testing revealed no issues, BLS decided to accept the proposal to permanently add the three questions on certifications and licenses to the monthly CPS. In accordance with the proposal, the first two questions would be asked after the educational attainment questions, and the third would be asked in the labor force section. The three questions would be asked only in the first and fifth interviews, though the questions would be asked in other months of new household members. Also, the third question would be reasked in other months in certain circumstances, such as when an individual changed jobs or an unemployed person became employed.

As recommended in the cognitive testing report of the proposed CPS questions, the BLS working group developed training materials that were given to interviewers prior to the first collection of data. These materials covered common issues that had come up in cognitive testing at BLS and through the GEMEnA work. In addition to being reviewed by BLS staff, the training materials were reviewed by GEMEnA members. This material was also incorporated into a section in the CPS interviewers' manual.<sup>19</sup>

The training materials were provided to interviewers prior to the introduction of the new questions with the collection of data for January 2015. Had the questions been asked starting in January only in the first and fifth interviews, the full sample would not have received the questions until May 2016; thus, annual averages would not have been available until 2017, and ASEC data about certification and licenses would likewise not have been available until 2017. In order to allow for the possibility of 2015 annual average data and 2015 ASEC data, the questions were asked of all months in sample in January 2015. While there is a chance that the questions would behave differently in interviews other than the first and the fifth, the risk was thought to be minimal.

During the first year of data collection, BLS staff listened to many interviews in order to ensure that the questions were working as expected. They also evaluated the data each month to identify any possible issues. There was one significant data collection problem encountered: due to a programming error, the third question was not asked in the first and fifth interviews in May and June. Because of the lack of data in these two months, BLS will not include 2015 annual averages for the third question in the first publication of data on certifications and licenses, nor will a public use variable derived from the third question be released at that time.<sup>20</sup>

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<sup>19</sup> Interviewer instructions on the questions about certifications and licenses can be found on pages C3-22 and C3-23 of the CPS Interviewer's Manual ([http://www2.census.gov/programs-surveys/cps/methodology/intman/CPS\\_Manual\\_April2015.pdf](http://www2.census.gov/programs-surveys/cps/methodology/intman/CPS_Manual_April2015.pdf)).

<sup>20</sup> Three other minor data collection issues occurred. In January 2015, the first two questions were not asked of people who were known to be over age 15 but who had not provided an exact age. Also, for the first half of the year,

Nonresponse on the questions is quite low. However, as with most survey questions, there were respondents who either refused to answer or did not know the answers to the questions. As is customary for nonresponse to questions on the CPS, BLS economists devised an imputation method to fill in missing data. This is often done with survey data as this type of nonresponse is unlikely to be random; analyses using only reported values implicitly assumes that all respondents are equally likely or unlikely to respond and that the estimate is approximately unbiased. The imputation method used for the questions on certifications and licenses is similar to that used for other CPS variables.<sup>21</sup>

### **Next steps**

BLS plans to publish the first CPS data from the questions on certifications and licenses on its website in the spring of 2016. As mentioned earlier, only data from the first two questions will be tabulated at that time. Soon after publication, public use versions of variables based on the first two questions will be made available to researchers. These can be linked to the CPS public use microdata files, enabling researchers to conduct their own analyses.<sup>22</sup>

BLS will continue to evaluate data from the third question. A major goal will be to make a public use variable derived from the third question available to researchers as soon as possible.

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the questions were not asked for people who had responses of “don’t know” or “refused” for the educational attainment questions. BLS investigated both of these issues and found that they impacted a small number of respondents. After examining later months, BLS determined that responses for these groups do not appear to be systematically biased. A third issue was that the third certification question was not asked of certain people that should have received the question; for example, some people who were unemployed and had previously been employed did not receive the question.

<sup>21</sup> Typically, CPS imputation methods rely on information about basic demographic characteristics, such as age and educational attainment. Unlike other CPS imputation methods, the imputation for certifications and licenses also uses information on labor force status and occupation. More information about imputation methods can be found in Chapter 9 of *Design and Methodology: Current Population Survey, Technical Paper 66*, available on the Census Bureau website at <http://www.census.gov/prod/2006pubs/tp-66.pdf>.

<sup>22</sup> To download the CPS public use files and accompanying documentation, see the Census Bureau website at [http://thedataweb.rm.census.gov/ftp/cps\\_ftp.html](http://thedataweb.rm.census.gov/ftp/cps_ftp.html).