
Appendix E – FDIC Technical Notes

The data for this report were collected through a Federal Deposit Insurance Corporation (FDIC)-sponsored Unbanked/Underbanked Supplement to the Current Population Survey (CPS) for June 2011. The CPS is a monthly survey of about 54,000 interviewed households conducted by the US Census Bureau for the Bureau of Labor Statistics (BLS). The survey is based on a scientific sample that represents the US civilian, non-institutionalized population, aged 15 or older.

The CPS is the primary source of information on the labor force characteristics of the US population, including employment, unemployment, and earnings statistics. The CPS results include a variety of demographic characteristics, such as age, sex, race, marital status, and educational attainment. Additional information about the CPS is provided in the Census Bureau's Technical Paper 66, Design and Methodology of the CPS, available at <http://www.census.gov/cps/>.

The CPS is a state-based design in that separate samples are selected from each state, so that states serve as the primary sampling strata. The sample sizes for each state are set so that specific precision requirements for estimating unemployment rates will be met.¹ The sample design ensures that most of the households in a given state have the same probability of being selected, though in general, household selection probabilities will vary across states. Because the CPS design is state-based, most of the estimates for the Unbanked/Underbanked Supplement should be precise at the state level and for some sub-state areas (e.g., large metropolitan statistical areas [MSAs]).

Unbanked/Underbanked Supplement

The Unbanked/Underbanked Supplement was conducted in June 2011. This was the second time this survey had been conducted. The first Unbanked/Underbanked Supplement was conducted in January 2009. The primary purpose of the supplement is to estimate the percentage of US households that are "unbanked" and "underbanked" and to identify the reasons why. The supplement survey instrument used in 2011, attached as Appendix G, included approximately 40 questions designed to provide this information. The 2011 survey instrument is similar to the 2009 survey instrument that the FDIC developed with the expertise of a national consulting firm, which specializes in public opinion research, as well as input from the Census Bureau's Demographic Surveys Division and BLS. The 2009 survey instrument underwent four rounds of cognitive field pre-testing and was revised to address the

¹ The precision targets that are the basis for the sample design of the CPS are provided on pp.3-1 in Chapter 3 of the US Census Bureau's Technical Paper 66, available at <http://www.census.gov/prod/2006pubs/tp-66.pdf>.

feedback gathered from each round.² The 2011 survey instrument underwent an expert review process by the US Census Bureau. For a detailed description of the revisions, see Appendix F (Revisions to the 2011 Survey Instrument). Because of changes in the questionnaire, direct comparisons between 2009 and 2011 estimates are limited and in some instances not possible.

Eligibility and Exclusions

All households that participated in the June 2011 CPS were eligible to participate in the Unbanked/Underbanked Supplement. However, only households whose respondents specified that they had some level of participation in their household finances and also responded "Yes" or "No" to whether someone in their household had a bank account (survey supplement Question 2, or Q2) were considered survey respondents.³ CPS household respondents who did not answer or answered "don't know" to Q2, or who did not participate in their household financial decisions (or refused to answer) were asked no further questions and were classified as nonrespondents for the supplement. This definition of supplement respondent is different from the one used in the 2009 FDIC Survey of Unbanked and Underbanked Households report. In 2009, a respondent was required only to answer "yes" or "no" to whether the households had an account in order to be considered a survey respondent. The revised 2009 estimates presented in this report use the 2011 definition of respondent so that the estimates are comparable to the 2011 results. It is worth noting that the revised 2009 estimates are not materially different from those in the 2009 report.

Demographic characteristics, such as race, age, education, and employment, associated with a respondent household for the supplement are those reported for the householder/reference person (i.e., a person who owns or rents the home, as designated by the respondent). These demographic characteristics were used in preparing report estimates and tables.

² The goal of each round was to determine respondents' comprehension of each question, test the flow of the questions, find major recall difficulties, ascertain the sensitivity or inappropriateness of any questions, and gauge the operational feasibility of the supplement. No changes to the survey were recommended following the fourth round of testing.

³ Respondents involved in their household finances include respondents in households where adults have separate finances or in households where the respondent was the only adult in the household. For households where adults share finances or have a mix of shared and separate finances, respondents were asked to specify how much they participated in their household financial decisions. Only those who reported having at least some level of participation were considered to be involved in their household finances.

Coverage and Response Rates

The target universe for the CPS is all civilian non-institutionalized persons (aged 15 or older) residing in the 50 states and the District of Columbia. To reach this universe, a list (sampling frame) of about 110 million households was developed from the Master Address File used for the 2000 Census, plus three additional frame sources (group quarters, area canvassing, and building permits).

For the June 2011 CPS, a statistical sample of approximately 58,900 survey-eligible households was selected from the sampling frame. Of these, about 53,700 households participated in the CPS, resulting in a 91.2 percent response rate. There were about 5,200 nonrespondent households. Most of these nonrespondents either refused to participate (59 percent of nonrespondents) or were not home at the time of the interview visit or call (23 percent). The remaining 18 percent consisted of households where (a) the household respondent was temporarily absent, (b) the household could not be located, (c) language barriers prevented the interview, or (d) “other” reasons. Because of the availability of translators for many languages, only 0.5 percent of the nonrespondents (25 households) did not participate as a result of language barriers.

About 44,900 (84 percent) of the 53,700 households participating in the CPS also participated in the Unbanked/Underbanked Supplement.⁴ The supplement survey response rates vary by demographic groups, ranging from 79 percent to 86 percent.

Coverage ratios for the CPS are derived as a measure of the percentage of persons in the target universe (civilian non-institutionalized persons aged 15 or older in the United States) who are included in the sampling frame.⁵ The overall coverage ratio for the June 2011 CPS was 87 percent. The missing 13 percent consists of three groups: (1) persons residing in households not in the CPS sampling frame, (2) non-institutionalized persons not residing in households at the time the CPS was conducted, and (3) household residents not listed as household members for the CPS for various reasons. The coverage ratios varied across demographic groups. For example, the coverage ratio was 88 percent for whites, 81 percent for blacks, and 85 percent for Hispanics.

⁴ Taking into account the nonresponse to basic CPS questions, the overall response rate for the Unbanked/Underbanked Supplement was 76 percent.

⁵ The coverage ratio is the weighted number of persons in a demographic group (after weights are adjusted to account for household nonresponse) divided by an independent count of persons in that demographic group (obtained from the 2000 Census with updates based on the American Community Survey).

The weights calculated by the Census Bureau for the CPS and the Unbanked/Underbanked Supplement respondents were adjusted to account for both nonresponse and undercoverage. These weight adjustments help correct any biases in estimates because of nonresponse and undercoverage, so that results from the CPS are “representative” of the civilian, non-institutionalized US population, aged 15 and older.⁶

Analysis of Supplement Survey Results

Using supplement survey results, households were classified as “unbanked” if they answered “no” to the question, “Do you or does anyone in your household currently have a checking or savings account?” Households answering “yes” to this question were classified as “underbanked” if they indicated that they had used at least one of the following alternative financial services: non-bank money orders, non-bank check-cashing services, non-bank remittances, payday loans, rent-to-own services, pawn shops, or refund anticipation loans, at least once in the last 12 months. Note that the 2011 definition of “underbanked” has been revised from the 2009 definition to include households that used non-bank remittances in the last year. The 2011 underbanked definition was also modified to include only households that used a refund anticipation loan in the last year, as opposed to in the last five years as defined in the 2009 report. Consequently, 2011 underbanked estimates are not directly comparable to 2009 estimates (see Box 2 on page 19).

The estimated proportion of US households that are unbanked was derived by dividing the sum of the weights of the household respondents who were identified as being unbanked by the sum of the weights of all household respondents. The same formula was used to estimate the proportion of US households that are underbanked. For estimated proportions of unbanked or underbanked households for demographic subgroups, the same computational approach was used and applied to respondent households in the subgroup.

In addition to presenting estimated proportions, many of the tables in this report include estimated numbers of households (e.g., total households, unbanked households, or underbanked households). An estimated number of households for a given category (such as unbanked) is derived as the sum of the weights of the sample households in that category. For example, for the entire supplement sample of about 44,905 respondent households, the sum of the household weights is 120,408,000, which

⁶ This adjustment is done by introducing three stages of ratio estimation that adjust weights to align with population control totals (independent population estimates for various demographic groups). The household weight is generally taken to be the weight of the householder/reference person.

would be an estimate of all US households as of June 2011. However, the Housing and Vacancy Survey, another survey related to the CPS that uses household controls to produce household weights, provided an estimate of 112,464,000 as the number of households in June 2011. This difference (120,408,000 vs. 112,464,000) is because household weights prepared by Census for the CPS and for this supplement survey are generally taken to be the reference person weights and are not adjusted to align with household count controls. Household count controls were not used to adjust household weights because the CPS is a person survey rather than a household survey; therefore, universe controls were used only in the preparation of person weights. As a result, the sum of household weights shown in our tables for a category tends to be higher than the actual household count for the category.

This report also contains a number of tables for which unbanked percentages and other household statistics are computed for subgroups defined by a particular economic or demographic characteristic. The household classification of an economic or demographic variable that is defined at the person level rather than the household level (e.g., race, education, or employment status) is based on the economic or demographic classification of the householder/reference person (i.e., a person who owns or rents the home).

The Census Bureau classifies households into different household types. For instance, a family household is a household that includes two or more people related by birth, marriage, or adoption and residing together, along with any unrelated people who may be residing there. Detailed definitions regarding household types can be found in the CPS Glossary available at <http://www.census.gov/apspd/techdoc/cps/mar97/glossary.html>.

Households are categorized into racial-ethnic classifications as follows: If the householder is identified as black, the household is classified as “Black” regardless of whether the householder is identified as Hispanic or any other race. If the householder is not identified as black and is identified as Hispanic, the household is classified as “Hispanic Non-Black.” If the householder is identified as white and not any other race and non-Hispanic, then the household is classified as “White.” All remaining households are classified as “Other.” However, in some national summary tables, the “Other” category is further disaggregated into “Asian” if the householder is identified as Asian, “American Indian/Alaskan” if the householder is identified as American Indian/Alaskan and not Asian, and “Hawaiian/Pacific Islander” if the householder is identified as Hawaiian/Pacific Islander and not Asian or American Indian/Alaskan. In these tables, “Other” consists of the few remaining households in which the

householder cannot be classified into any of the preceding groups.

Data analysts should exercise caution when comparing 2009 and 2011 estimates by income categories given that households with missing information were not treated the same way in both data sets. In the 2009 data set, about 15 percent of households had missing income information and were assigned to the “missing” income category. However, in the 2011 data set, the US Census Bureau imputed income data to households for which this information was missing. Except when making comparisons to 2009, the 2011 results use imputed income to classify household income. When comparing to 2009 results, 2011 respondent households with missing income are assigned to a “missing” income category.

The counties included in some of the MSAs selected for the CPS do not correspond exactly to the counties included for these MSAs in the official definitions prepared by the Office of Management and Budget (OMB) for two reasons.

First, in redesigning the CPS in a timely manner to incorporate results from the 2000 Decennial Census, the Census Bureau had to project revised MSA definitions prior to the release of the official OMB definitions in 2003. Therefore, in some cases, the Census Bureau included one or two counties in an MSA for the CPS that were not subsequently included in the official definition of the MSA. In other cases, the Census Bureau excluded one or two counties that were subsequently included in the official definitions of an MSA. In the latter case, the data for the MSA in the CPS (and in the Unbanked/Underbanked Supplement) will not include any responses for one or two of the counties that are a part of the official definition of the MSA.⁷

Second, since the CPS is a state-based design, MSAs that include counties in more than one state are subdivided into their respective state components for sampling purposes. Therefore, for some multi-state MSAs, the counties belonging to one or two of the states were not selected for the CPS sample, even though the counties making up the other portion of the MSA were selected. The larger portions are usually included in the CPS since they would be selected with certainty for their state sample because of their size (i.e., those larger portions would be “self-representing”). In addition, for some multi-state MSAs, the part of the MSA contained in a given state is selected for the CPS sample but cannot be identified as belonging to the MSA (for confidentiality reasons) because it contains fewer than 100,000 people. In such cases, the respondents

⁷ In the former case, data for any counties that were not subsequently included in the official definition of an MSA are coded as non-metropolitan.

in that state usually would be identified as belonging to a metropolitan area, but the specific MSA would not be identified.

Statistical Precision of Estimates

Standard errors were calculated for certain Unbanked/Underbanked Supplement Report estimates to indicate the precision of these estimates. For example, the standard error can be used to compute a 95 percent confidence interval for a survey estimate (this is generally computed as the estimate plus or minus two times the standard error). If the survey estimate of interest is a difference between estimates for different groups, the estimated standard error of the difference can be used to determine whether the observed difference is “statistically significant.” Differences discussed in this report are significant at the 10 percent level of significance. That is, if there was no difference in the true universe values of the two sample estimates being compared, the probability of obtaining sample estimates having this observed difference or a larger difference would be no more than 10 percent, and could be considerably less.

The standard errors presented in the full report on the FDIC’s Unbanked/Underbanked Supplement were calculated based on the variation of a survey estimate across a set of 160 sample replicates provided by the Census Bureau. Details of the calculation of standard errors based on sample replicates (and on the CPS methodology in general) are available from the Census Bureau.⁸

For an estimated difference between a universe quantity for the 2009 and 2011 Unbanked/Underbanked surveys (such as the difference between the number of unbanked households), the derivation of the standard error of such an estimated difference was based on the fact that estimates from the 2009 and 2011 surveys are independent. Therefore, the standard error of the estimated difference is the square root of the sum of the variances of the two separate estimates. Sample estimates of these variances, based on the use of the set of 160 replicates as described above, were used to estimate the standard error of a difference of estimates between the two years. The significance of any observed difference between estimates from the two years is assessed based on the estimated standard error of the difference.

⁸ For a detailed description of the methodology used to calculate standard errors using replicates, see US Census Bureau Technical Paper No. 66, Chapter 14, available at <http://www.census.gov/prod/2006pubs/tp-66.pdf>.