

How Did We Do?
Evaluating Data for the 2013 Survey of Income and Program Participation Field Test

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Brief Abstract (135 Words)

The Census Bureau is in the process of reengineering the Survey of Income and Program Participation (SIPP). The new instrument is based on Event History Calendar (EHC) methods and will debut with the 2014 panel. In 2013, we conducted our final field test of the new survey through a Wave 3 interview of approximately 2,500 households. This paper presents the results of the data review. First, we present the Wave 3 results and compare them to those from the same households collected in Waves 1 and 2 (2011 and 2012, respectively). Next, we compare the field test results for Waves 1-3 to a geographically matched subsample of respondents from the 2008 SIPP panel, to evaluate how well the field test results stack up. Finally, we compare the same results to the available administrative record data.

Background

The Census Bureau has spent the past five years reengineering its Survey of Income and Program Participation (SIPP). The SIPP has existed in various forms since 1984, when it debuted as a paper-based personal-interview survey. The survey design called for a longitudinal, panel survey, with interviews occurring every four months (three times per year) for the duration of the panel. With the 1996 panel, the survey moved to a computer-assisted personal interview (CAPI) design, although despite the switch from a paper to computerized instrument, the basic survey design and content did not change. However, each panel's sample size got larger, and panels no longer overlapped. From 1996 on, when one panel ended, a second one began.

In 2006, because of budgetary conditions that threatened the cancellation of the SIPP program, the Census Bureau, with significant support from the SIPP stakeholder community, began the re-engineering process that resulted in the instrument being fielded for production in 2014. The key motivations for the change to the existing survey design related to both budget and respondent burden. We decided that the best way to approach this challenge was to redesign the survey from the ground up. Additionally, CASES, the DOS-based instrument that powered SIPP, was now obsolete and needed replacement. In order to meet all of these objectives, we decided that the best way to administer the survey was through a series of annual interviews, revisiting sample households once per year instead of every four months, using a modern, Windows-based computerized instrument. This switch should allow us to reduce our fielding costs, as well as ease the burden on our respondents. We would now visit our respondents early in an interview year and ask them questions about the preceding calendar year (the "reference year").

¹ This work is released to inform interested parties of ongoing research and to encourage discussion of work in progress. Any views or opinions expressed in the paper are the authors' own and do not necessarily reflect the views or opinions of the U.S. Census Bureau.

Moving to an annual interview allowed us to fold in the disparate parts of the old SIPP interview into a single instrument. Previously, the survey had a set of “core” questions,² which we asked during each interview (i.e., every three months). Additionally, each wave then had additional questions on specific topics, contained in a series of “topical modules.”³ For example, a Child Care topical module asked a number of questions about the respondents’ use of different forms of childcare, the costs of each form, etc. Some of these topical modules were repeated during the life of the panel, while others were only asked in a single wave. Now, with the redesigned survey, the core and topical module questions have been combined into a single interview.

We accomplished this combination via the introduction of an Event History Calendar (EHC) to the SIPP (Fields and Callegaro, 2007). This was an important addition for us, because with the lengthier gaps between interviews, we are now expecting respondents to recall events that may have happened at any point during the previous year, as opposed to only over the previous four months as in the old SIPP. Additionally, the EHC design allows for a style of conversational interviewing that had previously been impossible; now, the Field Representative (FR) can discuss different domains in the respondent’s life in the order that the respondent wishes to discuss them (Belli, 1998). For example, if the respondent wants to discuss his employment and then his health insurance (as might be logical, if his health insurance came from his employer), the EHC design allows this. Another advantage of the EHC design is that it allows the FR to use one area to clarify responses in another. For example, if the respondent reported losing his job in July, but cannot remember when he lost his health insurance, the FR can look back at the calendar and probe, “Was it in July, around the time your employment ended?”

SIPP has changed substantially since its introduction, as well it should – no survey can be set in stone and still remain useful. However, one thing that has not changed since the survey’s 1984 debut is its mission. Through the SIPP, we still want to collect a nationally representative sample that allows us to evaluate:

- Annual and sub-annual dynamics of income,
- Movement into and out of government transfer programs,
- Family and social contexts of individuals and households, and
- Interactions between these items.

Field Tests

In order to test the efficacy of these changes, we have conducted a series of field tests of the redesigned SIPP instrument. In 2008, we conducted a brief, paper-based field test using a subsample of respondents from the 2008 SIPP panel. In 2010, we began the first field test of the integrated SIPP instrument with an event history calendar (SIPP-EHC). We fielded this prototype instrument to a small sample of respondents drawn from high-poverty areas in six states.

² Core questions are typically asked at the start of the interview. At the beginning of each household visit, the Census Bureau interviewer completes or updates a roster listing all household members, verifies basic demographic information about each person, and checks certain facts about the household. Core questions covering key areas of SIPP follow the initial questions and include Demographics; Labor Force; General Income; Assets; Health Insurance; Education; and Program Participation.

³ See http://www.census.gov/sipp/top_mod/topical.html for the list of SIPP topical content.

Armed with promising results from both the 2008 (Moore et al., 2009) and 2010 field tests (Census, 2011), we moved ahead with a multi-wave dress rehearsal. This dress rehearsal began in 2011, with an instrument that we had improved tremendously from the 2010 field test. While that 2010 field test was always intended to cover only a single wave, we knew that we needed to test multiple waves before we could put the instrument into a production environment. Therefore, the 2011 field test was a Wave 1 interview, with subsequent interviews in 2012 (Wave 2) and 2013 (Wave 3). The sample for this field test was smaller than that in 2010; additionally, it covered 20 states, although it was still concentrated in high-poverty areas (so was therefore not nationally representative).

The 2012 test, a Wave 2 interview, contained even more instrument improvements, as well as dependent data – that is, data collected in the previous (i.e., Wave 1) interview and fed back into the Wave 2 instrument to shorten the interview and improve data quality. For example, if the respondent had been receiving food stamps as of the last interview, in Wave 2 we could ask, “Last time I recorded that you were receiving food stamps. Are you still receiving them?” With prompts like this, respondents did not have to recall life events from scratch – the fed back data acted as a memory aid for them and eliminated some of the redundancy that might have otherwise plagued the interview. An initial collection of evaluations of the 2011 and 2012 data collections was presented in July 2013 at the National Academy of Science – Committee for National Statistics and represents a starting point for the additional analyses in this paper (Census, 2013-forthcoming).

The 2012 test also allowed us to evaluate the procedures and data associated with movers and measure sample attrition, albeit for a non-representative study sample. Because SIPP is a longitudinal survey that starts with an initial sample of households and then follows all members 15 years old and over, we have always engaged the complexity associated with following movers. Now that we are only visiting respondents once per year instead of every four months, it becomes substantially more likely that household members will have moved before we attempt to contact them again. Separating loss-to-follow-up associated with failing to locate respondents from refusal related attrition, and developing effective locating methods, are key to the longitudinal design of SIPP and critical to evaluate.

The 2013 test has served as our final field test before moving into a production survey in early 2014. As with the 2012 test, the 2013 test contained a number of significant instrument improvements, as well as additional dependent data to further shorten interviews. Further, as a Wave 3 test, the 2013 data collection allowed people who were not interviewed in Wave 2 to return – that is, a person could have been in the sample household in Wave 1, then absent due to refusal or failure to locate in Wave 2, then present again in Wave 3. Because this situation is common in the SIPP data collection environment, a Wave 3 test was necessary to ensure that the instrument, associated systems, and interviewer protocol could seamlessly accommodate it.

Data and Analyses

This paper uses data from the 2011-2013 (Waves 1-3) field tests of the SIPP-EHC instrument, with its main focus on data from 2013. First, we present the Wave 3 results and compare them to

those from the same households collected in Waves 1 and 2 (2011 and 2012, respectively). Of course, we will expect to see some variation, since households will change over time. However, these variations should still happen in logical ways – if someone says that she has three children in Wave 1 but then no children in Wave 3, that is most likely indicative of an instrument or interview problem, rather than a true change. On the other hand, if a respondent’s income has gone from \$50,000 to \$57,000, that increase is likely to be a true change. The paper presents a number of analyses of longitudinal results, along a number of dimensions (e.g., residence, employment, health insurance, program receipt, etc.).

Next, we compare the field test results for Waves 1-3 to a geographically matched subsample of respondents from the 2008 SIPP panel, to evaluate how well the field test results stack up. Because the field test sample came predominantly from high-poverty areas, concentrated in 20 states, it is not nationally representative. However, we took the respondents from the 2008 SIPP panel and drew from them a set of respondents who live in similar geographical and financial circumstances. That way, we can compare the results of the 2011-2013 SIPP field tests to those of similar respondents to a survey whose results we know are valid. Therefore, we can use this matched sample of respondents to validate the results from the field tests and ensure that we are getting results within expected ranges, realistic levels of item non-response, etc.

Finally, we compare the same results to the available administrative record data. While we do not have access to administrative records from every state, we do have them from some states and federal government agencies. By comparing results from our field tests to those from government agencies (which we assume are almost always correct), we have another avenue through which to assess the quality of our collected data.

References

Belli, R. F. (1998). "The structure of autobiographical memory and the event history calendar. Potential improvements in the quality of retrospective reports in surveys." *Memory*, 6, 383-406.

Census. (2011) "An Initial Evaluation of the 2010 Field Test of Re-Engineered SIPP." SIPP-EHC Data Evaluation Workgroup, U.S. Census Bureau, SEHSD Working Paper Number 2011-9 http://www.census.gov/sipp/DEWS/sippehc_eval.pdf

Census. (2013) "SIPP-EHC: 2011 and 2012 Field Test Evaluation" SIPP-EHC Data Evaluation Workgroup, U.S. Census Bureau. Forthcoming.

Fields J.M.; Callegaro M. "Background and Planning for Incorporating an Event History Calendar into the Re-Engineered SIPP." Federal Committee on Statistical Methodology, Alexandria, VA; 2007. <http://www.census.gov/sipp/DEWS/Fields%20and%20Callegaro%20FCSM%20Final%20Paper%202007.pdf>

Moore, J. Fields J., Benedetto, G., Stinson, M., Chan, A. "The 2008 Survey of Income and Program Participation Event History Calendar Field Test: Study Design and Initial Results" U.S. Census Bureau, Draft paper prepared for presentation at AAPOR. Hollywood, FL, May 14-17, 2009.