

Measuring School Enrollment in the 2011 SIPP-EHC Field Test

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Introduction

Since its inception in 1984, the main objective of the Survey of Income and Program Participation (SIPP) has been to provide accurate and comprehensive sub-annual information about the income and program participation dynamics for individuals and households in the United States. In addition to economic and program participation information, the SIPP also tracks a variety of topics over time, such as marital status, employment, and school enrollment. The school enrollment topic is unique to other topics in SIPP because of expected changes due to summer breaks and grade level changes.

The most recent SIPP panel started in 2008, and has been interviewing sampled households every 4 months to collect monthly data. The U.S. Census Bureau is re-engineering the SIPP to accomplish several goals, including reducing burden on respondents, reducing program costs, improving accuracy, improving timeliness and accessibility, and improving relevance. A key component of the re-engineering process is shifting from the current every-four-month data collection schedule of traditional SIPP to an annual data collection in the re-engineered survey (SIPP-EHC). In order to collect monthly data over a longer time period, the SIPP-EHC uses event history calendar (EHC) methods (Fields and Callegaro, 2007). The EHC is a survey methodology that has been successfully employed since the 1960's to assist interviewers in collecting detailed data with long recall periods (Belli, 1998; Belli, Shay, and Stafford, 2001). The U.S. Census Bureau is re-engineering the SIPP to incorporate EHC methods.

This paper evaluates how well SIPP-EHC captures school enrollment data by comparing estimates of school enrollment collected via the SIPP conventional questionnaire and the event history calendar in SIPP-EHC. The paper further examines how SIPP and SIPP-EHC estimates align with enrollment estimates from other national surveys including the American Community Survey (ACS) and Current Population Survey (CPS). Evaluating the effectiveness of the SIPP-EHC in capturing enrollment data is particularly useful given the uniqueness of the school enrollment topic.

Background

EHC Techniques

A primary concern associated with the shift to annual interviewing and the continued emphasis on the collection of monthly data is the potential for degradation in the quality of monthly reporting due to recall errors. Belli (1998) provides a strong theoretical rationale for the use of EHC methods, and their likely superiority to more traditional survey instruments using a standard question-by-question approach in a conventional questionnaire. When compared to conventional questionnaire (CQ) methods in randomized design studies, EHCs have shown better data quality for retrospective reports in terms of precision of the placement of events in time, and in terms of reducing underreporting. Belli, Shay, and Stafford (2001) studied Panel Study of Income Dynamics respondents randomly assigned to EHC or conventional conditions using validation data collected from the same respondents (PSID) years before. They showed that EHC reports were more precise (less underreporting, higher agreement between reports) than reports from the conventional questionnaire on number of moves, income, weeks unemployed, and weeks missing work resulting from personal illness, the illness of another, or the combination of the two.

Most existing EHC evaluations are consistent with the hypothesis of improved data quality – acting through improvements in the ability of respondents to integrate memory across topic areas and retrieve related information in a more natural autobiographical manner. The research base of strong quantitative evaluations of theory-based predictions of EHC behavior is somewhat limited. Most studies have focused on the use of comparable survey recall periods and evaluated strictly the survey method. Thus, concern lingers about the data quality implications for the topics covered in SIPP with the shift from a four-month recall period to a one-year or longer recall period. This paper documents the work accomplished to this point and the findings related to recall and survey design decisions in the development of the SIPP-EHC instrument.

Although never implemented as a production instrument at the Census Bureau, the Census Bureau and SIPP researchers have experience with EHC instruments. In the late 1980's an EHC was field tested with SIPP in the Chicago region (Kominski, 1990). In the end this test was not implemented as a production component because there were too many concomitant changes required to integrate it into the program. Similar to an event history

calendar, a ‘Residential History Calendar’ was implemented as part of the Survey of Program Dynamics, a special follow-on study to the 1992 and 1993 panels of SIPP. In the late 1990’s, the development of EHC instruments as electronic instruments began, significantly easing some of the issues associated with retrieving and coding the data collected with this tool. The EHC methodology helps interviewers and respondents by allowing recall of information in a more natural “autobiographical” manner. The respondent cues their memories off of landmark events they can clearly place in time during the reference period, as well as from answers to other domains in the EHC. We outline the basic information surrounding the decision to pursue an EHC in the re-engineered SIPP as well as some background on the history EHC instruments in Fields and Callegaro (2007).

Differences in School Enrollment Data Collection between SIPP and SIPP-EHC

The SIPP 2008 Panel collects monthly school enrollment data for adults age 15 and over, including information about grade of enrollment, type of school (public versus private), and enrollment status (full- versus part-time). The SIPP 2008 Panel collects information about children’s schooling bi-annually as part of a Child Well-Being topical module and the Child Care topical module, but these are not monthly school enrollment data. The SIPP-EHC enrollment content, including grade, type of school and enrollment status, was selected in part through suggestions from stakeholders about important content to retain. Stakeholders expressed interest in collecting information about school enrollment for children, particularly outcomes such as grade repetition and head start enrollment. We decided to expand the universe for school enrollment to everyone age 3 and over so that users would have monthly data about children as well as adults.

We made several modifications to the existing SIPP 2008 items in order to accommodate a wider age universe. The grade level categories in SIPP 2008 were collapsed for elementary and high school, so we expanded the response categories to include single year of enrollment for grades 1-12. We also included new categories for nursery school and kindergarten. Research from the American Community Survey (Crissey, Bauman, and Peterson, 2007) showed that respondents with home schooled children experienced difficulty selecting public or private school type, so we included a third response category for home schooling. The 2008 SIPP asks anyone enrolled in school whether they are enrolled full time or part time, but the SIPP-EHC excluded anyone enrolled in grades 1-12 from the universe. Both the 2008 SIPP and the SIPP-EHC include an item about whether a child had ever repeated a grade. With the monthly SIPP-EHC data on grade of enrollment, it is also possible to collect information about whether a child had repeated a grade during the reference year. We included an item that asked about grade repetition or retention for respondents in grades 1-12 who reported being enrolled in the same grade at the beginning and end of the reference year.

SIPP-EHC Field Testing and Instrument Changes

The first field test of the SIPP-EHC was based on a paper version of the EHC. Respondents from the 2004 SIPP Panel were re-contacted to complete an abbreviated version of the EHC that collected limited information about program participation, employment, health insurance, and school enrollment during the same time period. Responses to the 2004 SIPP items were compared to the EHC responses to assess differences in enrollment rates over the course of a calendar year. Analyses revealed no difference in enrollment rates in the later months of the year (August-December), but the estimate from the EHC was higher in summer months and the SIPP estimate was higher in the beginning of the year (Moore et al., 2009).

One explanation for domains where EHC estimates were lower than SIPP estimates early in the calendar year is that people are likely to have memory decay and so have difficulty remembering events further in the past. There is some evidence of this with the school enrollment 2008 Field Test Data, perhaps suggesting that respondents had forgotten about school enrollment early in the year. However, there are also periods where the estimates from the EHC exceed those from the SIPP. Notably, these are all summer months. Unlike other domains captured in the EHC, school enrollment has seasonal variation based on school calendar. Even people who are “continually” enrolled in school have a break in attendance, most frequently over the summer months. Field observations revealed that respondents reported being enrolled all year and underreported breaks in school enrollment over the summer.

The second field test of the SIPP-EHC, collected in 2010, was a Computer Assisted Personal Interview (CAPI) using an automated instrument. In response to the 2008 field test data that showed higher than expected enrollment during the summer months, we included an instrument check for when respondents provided a spell of enrollment

that covered the entire year. We instructed Field Representatives to divide spells based on breaks in attendance or changes in grade level.

The third field test was an updated CAPI instrument collected in 2011. Among the improvements added to all domains were modified introductory questions as well as a follow-up for each section to confirm that respondents did not have any additional periods of data to report. In the 2010 SIPP-EHC, there was a single introductory question for the enrollment section that asked whether respondents were enrolled at any time during the calendar year. In 2011, respondents were first asked if they were currently enrolled. If not, respondents were then asked if they had been enrolled at any time since the beginning of the calendar year. Prompting respondents with two separate questions should help improve memory recall of events earlier in the calendar year.

Research Questions

This paper evaluates the quality of the school enrollment data captured in the 2011 SIPP-EHC by answering the following research questions:

1. How do 2008 SIPP Panel and 2011 SIPP-EHC Field Test data compare to national estimates of school enrollment from the ACS and CPS across key characteristics including age and grade level of enrollment?
2. How well does the 2011 SIPP-EHC Field Test Data compare to the 2008 SIPP Panel data in terms of monthly enrollment rates for the 2010 calendar year?

Data and Methods

Data

We used data from the 2008 SIPP Panel, the 2010 SIPP-EHC Field Test, the 2011 SIPP-EHC Field Test, the 2010 ACS, and the 2010 CPS. The 2008 SIPP Panel is a nationally representative longitudinal survey of the U.S. that began in 2008 with follow-up interviews every four months. We used data collected in Waves 5-8 in order to capture all of the data from the 2010 calendar year needed to calculate monthly enrollment rates.

The 2011 SIPP-EHC oversampled high poverty strata and was geographically matched to the SIPP 2008 Panel. The SIPP-EHC 2011 sample covers about 20 states and includes approximately 7,000 people. Therefore, SIPP-EHC estimates are not nationally representative. Consequently, in this paper we examine 2008 SIPP estimates based on the entire sample as well as a subset of the 2008 SIPP panel that is geographically matched to the SIPP-EHC 2011 sample (subsequently referred to as the geo-matched SIPP data).

The key differences in enrollment content between 2008 SIPP Panel and the 2011 SIPP-EHC field test questionnaires were outlined above, but here we highlight key differences again. SIPP-EHC collected monthly enrollment with detailed grade level for everyone age 3 and over, while the 2008 SIPP panel only gathered broad level of enrollment for the population age 15 and over. Since SIPP-EHC gathers enrollment information for an entire calendar year, the questionnaire also includes an item about grade repetition for respondents enrolled in the same grade at the beginning and end of the year. Although the 2008 SIPP panel asked whether a child had ever repeated a grade, the SIPP-EHC data documents which respondents repeated a grade during the reference year and which grade respondents repeated. Both of these surveys include people enrolled in vocational certificate programs.

The CPS survey samples approximately 72,000 housing units each month. The school enrollment data come from a special supplement administered each October. The supplement asks detailed questions of everyone age 3 and over regarding enrollment status, level of enrollment, and whether the respondent attended school full-time or part time.

The ACS data come from a sample of about 3 million addresses. The ACS survey asks respondents throughout the calendar year whether they were enrolled in regular school at any point in the three months before the interview. The survey asks about enrollment during the last three months in order to capture school enrollment of respondents who were interviewed during the summer months when they were not currently attending school. The ACS also asks about whether each individual attended public or private school and the grade or level of enrollment.

Methods

We first create person-month files for the 2010 calendar year for the 2008 SIPP Panel and the SIPP-EHC 2011 panel.

We then begin by comparing SIPP and SIPP-EHC data to ACS and CPS to examine whether SIPP and SIPP-EHC estimates of enrollment by selected characteristics are reasonable given differences in sample between them and the ACS and CPS. We first compare enrollment estimates by age for October 2010 in SIPP and CPS to determine whether the national estimates align. Here we restrict the sample to adults. We then compare enrollment rates by age between SIPP-EHC and the geo-matched SIPP.

After exploring how well SIPP and SIPP-EHC capture enrollment by age, we then focus on estimates of enrollment by grade level. Since ACS, CPS, and SIPP-EHC all collect level of enrollment in more fine-tuned categories and for a greater age range than SIPP, we focus on these surveys and compare the percentage of enrolled people by grade level. In order to capture the full distribution of enrollment level, we include all people who are enrolled who are age three and over.

After determining whether SIPP and SIPP-EHC enrollment estimates are reasonable compared to other national estimates, we then turn to a comparison between SIPP and SIPP-EHC to evaluate the effectiveness of the SIPP-EHC in capturing school enrollment. We weight the geo-matched SIPP data with the SIPP 2008 final person weights from January 2010 and the SIPP-EHC data with preliminary weights that weight the data up to the geo-matched SIPP. We compare monthly enrollment rates for the calendar year 2010 between SIPP-EHC and the geographically matched SIPP. In order to evaluate changes between the 2010 and 2011 SIPP-EHC Field Tests, we also briefly show monthly enrollment rates for calendar year 2009 from SIPP-EHC.

We then utilize the strength of SIPP-EHC data and examine enrollment rates for children, data that was unavailable in the 2008 and earlier SIPP Panels. We briefly compare enrollment rates by age for young children from CPS and SIPP-EHC to check whether SIPP-EHC captures reasonable estimates for the enrollment of children. Although SIPP-EHC is an over sample of low income areas, this should be less of an issue for young ages when school attendance is mandatory nationwide.

Lastly, we very briefly examine the SIPP-EHC data on grade repetition but do not focus on these analyses due to the very small sample size.

Results

Table 1 compares enrollment rates by age for adults in October 2010 in CPS and 2008 SIPP. Differences in enrollment rates by age group between the two surveys ranged from 1.3 to 4.8 percentage points. There were higher enrollment rates in CPS than SIPP for adults age 15 to 17 and lower enrollment rates in CPS than SIPP for adults age 20 to 34 and 55 and over. There were no significant differences in enrollment rates for adults age 18 to 19 and 35 to 54. These results show that 2008 SIPP does a reasonable job of capturing school enrollment across age groups for adults given differences in survey design between CPS and SIPP.

Table 2 compares enrollment rates by age in October 2010 in SIPP-EHC and geo-matched 2008 SIPP. Both surveys show lower enrollment rates among older ages than among younger ages. The low enrollment rates during the teenage years might reflect the fact that both the SIPP-EHC and geo-matched SIPP data draw from disproportionately low income communities where teenagers have relatively high rates of high school dropout and relatively low rates of college enrollment. Estimated enrollment rates in geo-matched SIPP and SIPP-EHC were not different for most age groups. The only significant difference in enrollment rates was found among adults aged 35 to 44. Among this age group, 4.6 percent of adults in geo-matched SIPP were enrolled compared to 8.3 percent in SIPP-EHC. While Table 1 illustrated that 2008 SIPP produced enrollment rates by age that are not different from CPS, Table 2 show that SIPP-EHC produces enrollment rates by age that are not different from geo-matched SIPP.

After exploring how SIPP and SIPP-EHC capture enrollment by age, Table 3 compares enrollment rates by level of school enrolled for ACS, CPS, and SIPP-EHC in calendar year 2010. It is important to remember that the surveys measure enrollment differently and so the estimates from ACS represent the average for the year while the estimates for CPS and SIPP-EHC represent the grade distribution of enrollment in October of 2010. The distribution of grade

of enrollment does not significantly differ between ACS and SIPP-EHC. There are no significant differences in the percentages enrolled in nursery school, high school, and undergraduate college years in CPS and SIPP-EHC. A higher percentage of enrolled students are in nursery school and graduate or professional school in CPS than SIPP-EHC while a lower percentage are in grades 1 through 8. All three surveys show that between one-fifth and one-quarter of enrolled students are in each of the following grade ranges: 1-4, 5-8, 9-12, and undergraduate college.

We next turn to a comparison of monthly enrollment rates for adults in calendar year 2010 between geo-matched SIPP and SIPP-EHC. Overall, Table 4 shows that monthly enrollment rates between the two surveys do not differ. Monthly enrollment rates in 2010 do not differ between the two surveys except in February, July, and August. The geo-matched SIPP enrollment rates are higher than SIPP-EHC during the summer months of July and August. Summer enrollment is expected to be particularly low for adults given the typical academic calendar of undergraduate and graduate school programs, and so this finding suggests that SIPP-EHC may be capturing adult enrollment well during the summer. The first field test of the EHC showed higher enrollment rates during the summer months than in the 2004 SIPP panel, raising concerns that the EHC was not initially capturing attendance breaks (Moore et al., 2009). That the SIPP-EHC 2011 data now show lower summer enrollment rates suggests that the added instrument check for long spells, which asks Field Representatives to confirm that there are no breaks in attendance for reported long spells, is effectively capturing breaks in enrollment during the summer months. SIPP-EHC enrollment rates at the beginning of the year are not different from those at the end of the year.

Figure 1 displays monthly enrollment rates for geo-matched SIPP and for SIPP-EHC 2011 (calendar year 2010) and SIPP-EHC 2010 (calendar year 2009). The overlapping monthly enrollment rates from SIPP-EHC 2011 and SIPP-EHC 2010 suggest that the EHC format is producing reliable enrollment estimates.

One critical way SIPP-EHC was expanded from the 2008 SIPP Panel was in collecting enrollment information for children in addition to adults. The 2008 SIPP Panel only collected information from adults age 15 and over while SIPP-EHC collected information from respondents age 3 and over. Monthly enrollment data for children will be critical for stakeholders interested in child well-being and child outcomes. Although CPS and SIPP-EHC do not represent similar populations, Table 5 compares October 2010 enrollment rates for children age 3-17 from CPS and SIPP-EHC to see whether SIPP-EHC estimates are reasonable compared to national estimates. The estimates differ for ages 3-4 (when attendance is not mandatory) and for ages 14-17 as some young adults face higher risk of dropout than others. The estimates also differ for ages 5-6. These differences likely reflect the fact that SIPP-EHC respondents are disproportionately drawn from low-income populations where young children are less likely to be enrolled in formal nursery school or pre-Kindergarten programs, and young adults are more likely to drop out of high school than children from more advantaged backgrounds. Also, the CPS sample includes people throughout the nation while the SIPP-EHC 2011 sample only includes about 20 states. Estimated enrollment rates do not differ in CPS and SIPP-EHC for children age 7 to 13.

The SIPP-EHC data will also be useful to stakeholders interested in child outcomes because of the yearly information on grade repetition. However, due to the SIPP-EHC sample size and the low rates of grade repetition, we do not include analyses of grade repetition in this paper.

Conclusions

This paper evaluated the quality of the school enrollment data from the SIPP-EHC instrument. We compared enrollment rates to those from the 2008 SIPP Panel, ACS, and CPS, and examined rates by age and grade level of enrollment. Overall, these analyses show that the school enrollment data from the SIPP-EHC instrument look reasonable. It is remarkable that different methods of data collection (EHC versus conventional questionnaires) with different reference periods (one month, four months, one year) from four different surveys produce some estimates that do not differ.

It is critical to closely examine the school enrollment data while evaluating the effectiveness of the SIPP-EHC instrument given the unique aspects of the enrollment topic. Unlike other topics in the EHC, we expect to see changes in school enrollment over the course of the reference year due to summer breaks and grade level changes. Low rates of enrollment during the summer months and enrollment rates that are not different during the beginning and end of the year provide evidence that the SIPP-EHC reasonably captures school enrollment. Improvements made to the instrument, including a check for long spells of enrollment, seem to have been effective.

The SIPP-EHC will be a valuable source of school enrollment data as it collects monthly enrollment data for children and adults in a longitudinal study with rich information on other relevant topics such as migration, employment, and marital status.

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**Table 1. Enrollment Status of the Population 15 Years and Over: October 2010
Comparison of CPS, SIPP 2008, Estimates**

(Total population numbers in thousands. Civilian noninstitutionalized population)

| | Total Population | | % Enrolled | | Difference |
|-----------------------|------------------|--------|------------|------|------------|
| | CPS | SIPP | CPS | SIPP | CPS-SIPP |
| AGE | | | | | |
| 15 years old | 3,983 | 4,078 | 98.6 | 93.8 | 4.8 * |
| 16 and 17 years old | 8290 | 8,365 | 96.1 | 93.6 | 2.5 * |
| 18 and 19 years old | 8529 | 8,666 | 69.2 | 70.5 | -1.3 |
| 20 and 21 years old | 8681 | 8,691 | 52.4 | 56.0 | -3.6 * |
| 22 to 24 years old | 12449 | 12,229 | 28.9 | 33.7 | -4.8 * |
| 25 to 29 years old | 21117 | 21,201 | 14.6 | 16.1 | -1.5 * |
| 30 to 34 years old | 19981 | 19,898 | 8.3 | 9.6 | -1.3 * |
| 35 to 44 years old | 39980 | 39,980 | 4.7 | 5.0 | -0.3 |
| 45 to 54 years old | 44331 | 44,331 | 2.5 | 2.7 | -0.2 |
| 55 years old and over | 75173 | 75,172 | 0.5 | 0.7 | -0.2 * |

*Significant difference at the .05 level.

Source: U.S. Census Bureau, 2010 Current Population Survey, Survey of Income and Program Participation, 2008 Panel, Waves 5-8. For information on sampling and nonsampling error see <www.census.gov/sipp/source.html>.

**Table 2. Enrollment Status of the Population 15 Years Old and Over: October 2010
Comparison of SIPP 2008 Panel and 2011 SIPP-EHC Estimates**

| | Weighted N (in thousands) | | % Enrolled | | Difference geo SIPP- SIPP-EHC |
|-----------------------|---------------------------|----------|-------------------|--------------|-------------------------------------|
| | SIPP geo match | SIPP-EHC | SIPP geo match | SIPP- EHC | |
| AGE | | | | | |
| 15 years old | 389 | 391 | 94.61 | 94.5 | 0.15 |
| 16 and 17 years old | 788 | 806 | 92.32 | 92.1 | 0.25 |
| 18 and 19 years old | 800 | 850 | 67.42 | 57.1 | 10.36 |
| 20 and 21 years old | 836 | 966 | 47.97 | 42.2 | 5.80 |
| 22 to 24 years old | 1,208 | 1,394 | 35.01 | 35.0 | -0.03 |
| 25 to 29 years old | 2,000 | 2,233 | 12.97 | 16.6 | -3.63 |
| 30 to 34 years old | 1,797 | 1,795 | 8.49 | 8.8 | -0.35 |
| 35 to 44 years old | 3,222 | 3,571 | 4.60 | 8.3 | -3.74 * |
| 45 to 54 years old | 3,397 | 3,389 | 2.91 | 3.0 | -0.11 |
| 55 years old and over | 4,944 | 5,206 | 0.67 | 1.1 | -0.42 |

Note: SIPP geo match file is a sub sample of SIPP geographically matched to 2011 SIPP-EHC. SIPP-EHC weighted to geo-matched SIPP.

*Significant difference at the .05 level.

Source: U.S. Census Bureau, 2011 SIPP-EHC; Survey of Income and Program Participation, 2008 Panel, Waves 5-8. For information on sampling and nonsampling error see <www.census.gov/sipp/source.html>.

Table 3. Distribution Grade of Enrollment: Calendar Year 2010
Comparison of ACS, CPS, and SIPP-EHC
Population aged 3 and over
 (ACS and CPS weighted numbers in thousands.)

| | ACS | | CPS | | SIPP-EHC | |
|--|-----------------|---------------------|-----------------|---------------------|-----------------|---------------------|
| | Number Enrolled | % Enrolled in Grade | Number Enrolled | % Enrolled in Grade | Number Enrolled | % Enrolled in Grade |
| Total enrolled in school | 82,724 | | 78,519 | | 7,197 | |
| Enrolled in nursery school, preschool | 4,950 | 6.0 | 4,835 | 6.2 | 297 | 4.1 |
| Enrolled in kindergarten | 4,183 | 5.1 | 4,172 | 5.3 | 404 | 5.6 |
| Enrolled in grade 1 to grade 4 | 16,338 | 19.8 | 16,640 | 21.2 | 1,695 | 23.6 |
| Enrolled in grade 5 to grade 8 | 16,567 | 20.0 | 16,022 | 20.4 | 1,650 | 22.9 |
| Enrolled in grade 9 to grade 12 | 17,235 | 20.8 | 16,574 | 21.1 | 1,514 | 21.0 |
| Enrolled in college, undergraduate years | 19,326 | 23.4 | 16,354 | 20.8 | 1,379 | 19.2 |
| Graduate or professional school | 4,125 | 5.0 | 3,921 | 5.0 | 257 | 3.6 |

Note: Excludes enrollment in vocational programs. SIPP-EHC weighted to geo-matched SIPP.

Source: U.S. Census Bureau, 2010 Current Population Survey, 2010 American Community Survey, 2011 SIPP-EHC.

Table 4. Comparison of SIPP and SIPP-EHC Monthly Enrollment Rates: Calendar Year 2010
Adults Age 15 and Over

| 2010 | Geo-matched SIPP | | SIPP-EHC | | % Point Difference |
|-----------|------------------|------------|----------|------------|--------------------|
| | Total | % Enrolled | Total | % Enrolled | |
| January | 22,730 | 17.4 | 20,600 | 16.2 | 1.2 |
| February | 22,355 | 17.9 | 20,600 | 16.4 | 1.5 * |
| March | 21,772 | 17.7 | 20,600 | 16.5 | 1.2 |
| April | 21,272 | 17.8 | 20,600 | 16.6 | 1.2 |
| May | 20,781 | 17.4 | 20,600 | 16.5 | 0.9 |
| June | 20,501 | 14.3 | 20,600 | 13.2 | 1.1 |
| July | 20,179 | 10.0 | 20,600 | 7.2 | 2.8 * |
| August | 19,810 | 13.4 | 20,600 | 11.5 | 2.0 * |
| September | 19,629 | 16.4 | 20,600 | 16.8 | -0.4 |
| October | 19,381 | 16.3 | 20,600 | 16.9 | -0.6 |
| November | 19,330 | 16.5 | 20,600 | 17.1 | -0.6 |
| December | 19,342 | 16.2 | 20,600 | 16.9 | -0.7 |

Note: SIPP geo match file is a sub sample of SIPP geographically matched to 2011 SIPP-EHC. SIPP-E
*Significant difference at the .05 level.

Source: U.S. Census Bureau, 2011 SIPP-EHC; Survey of Income and Program Participation, 2008 Panel

Table 5. October 2010 Monthly Enrollment Rate for Kids

Comparison of CPS and SIPP-EHC
(Numbers in thousands; Population age 3-17)

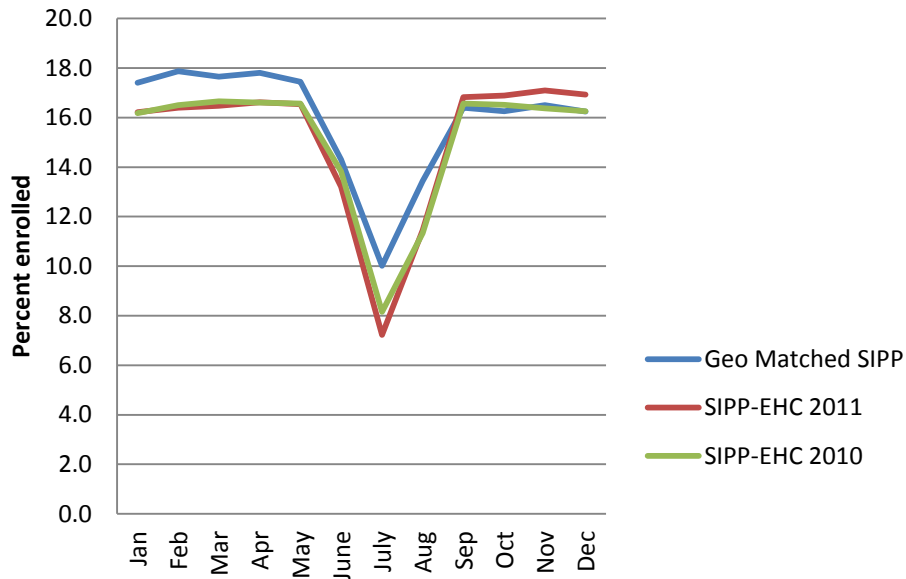
| Age | CPS | | SIPP-EHC | | CPS-SIPP-EHC |
|---------------------|--------|------|----------|------|--------------|
| | Number | % | Number | % | |
| 3 and 4 years old | 4,706 | 53.2 | 859 | 32.5 | 19.7 * |
| 5 and 6 years old | 7,955 | 94.5 | 835 | 87.4 | 6.9 * |
| 7 to 9 years old | 12,153 | 97.7 | 1,211 | 96.3 | 1.6 * |
| 10 to 13 years old | 15,831 | 98.2 | 2,075 | 97.2 | 1.1 * |
| 14 and 15 years old | 7,736 | 98.1 | 391 | 94.5 | 3.6 * |
| 16 and 17 years old | 7,963 | 96.1 | 806 | 92.1 | 4.1 * |

Note: SIPP-EHC weighted to geo-matched SIPP.

*Significant difference at the .05 level

Source: U.S. Census Bureau, 2010 Current Population Survey, 2011 SIPP-EHC.

Figure 1. Monthly Enrollment of Age 15 and over in SIPP and SIPP-EHC



Source: U.S. Census Bureau, 2011 SIPP-EHC, 2010 SIPP-EHC, and SIPP 2008 Panel, Waves 5-8. For information on sampling and nonsampling error see <www.census.gov/sipp/source.html>.