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STATE HEALTH ACCESS DATA ASSISTANCE CENTER

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GUIDE TO USING THE 2014 AND 2015 CURRENT POPULATION SURVEY PUBLIC USE FILES

Tabulating estimates of health insurance coverage, income, and poverty from the redesigned survey

INTRODUCTION

The Current Population Survey (CPS), conducted by the U.S. Census Bureau for the Bureau of Labor Statistics, is designed to provide monthly data on labor force participation and unemployment for the civilian non-institutionalized population. Data on income and health insurance coverage are collected once each year through the Annual Social and Economic Supplement (ASEC), which is administered February through April. Respondents are asked about their income and health insurance coverage for the prior calendar year.

The Census Bureau implemented redesigned income and health insurance coverage questions beginning with the 2014 Current Population Survey's Annual Social and Economic Supplement (CPS) questionnaire. The 2014 CPS asked about income and health insurance coverage in 2013. The income questions were redesigned to reduce nonresponse and update questions on retirement income. The health insurance coverage questions were redesigned to improve the measure of past year coverage, add a point-in-time measure for coverage, collect additional information related to the Affordable Care Act (exchange participation and employer-offers of coverage) and collect information about plan changes during the year. For further information about the redesigned CPS health insurance coverage questions, please see SHADAC Brief #39.

When the Census Bureau implemented the redesigned questions in 2014, the entire sample of 98,000 addresses received the redesigned health insurance coverage questions, while the sample was split for the income questions (68,000 addresses received the traditional questions and 30,000 addresses received the redesigned questions). The entire 2015 sample received the redesigned health insurance coverage and income questions.

This brief provides guidance and SAS code for how to use the 2014 and 2015 public use files. It discusses what comparisons over time are possible, the 2014 research file that the Census Bureau created to combine the two different income question samples, and how to access the new health insurance coverage content that's currently available.

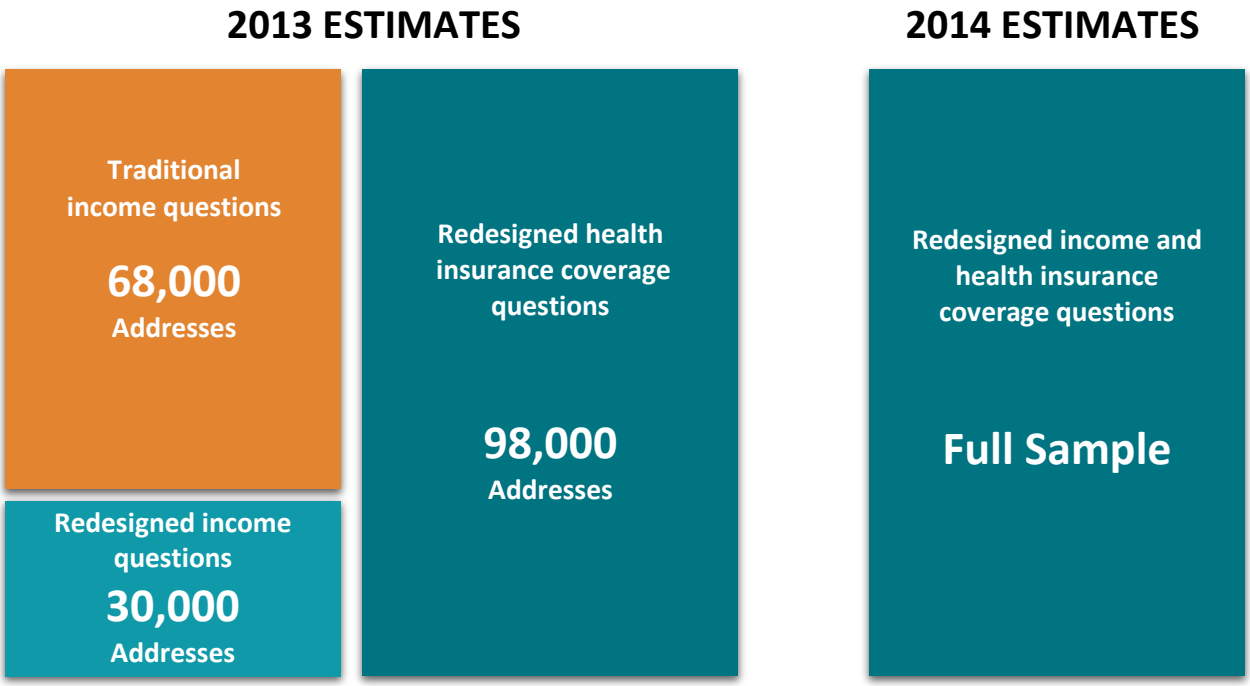
The calendar year will be referenced for the remainder of this brief, unless otherwise noted. For example, when describing 2013 estimates from the 2014 CPS, we refer to 2013.

COMPARISONS OVER TIME

The implementation of the redesigned health insurance coverage questions created a break in series, 2013 coverage estimates should not be compared with prior years. The redesigned income questions also created a break in the income series, but the split sample allows for comparisons of 2013 estimates with prior years. Figure 1 provides an explanation of the different samples.

The 68,000 addresses sample of traditional income questions in 2013 can be compared with prior years. The 30,000 addresses sample of redesigned income questions in 2013 can be compared with 2014 and future years. The Census Bureau used the split samples for the official income and poverty estimates. The combined 98,000 addresses sample for 2013 can be used for health insurance coverage if the estimates are not tabulated by income or poverty.

FIGURE 1: 2013 AND 2014 ESTIMATES FROM THE CPS: MULTIPLE SAMPLE FILES



2013 RESEARCH FILE

The Census Bureau created a 2013 income consistent research file by using multiple imputation techniques to combine the subsamples into a single sample.[1] While the Census Bureau did not use this combined file for official income and poverty estimates, SHADAC recommends using this file for tabulating health insurance coverage estimates by income or poverty. The larger sample of the combined file allows analysts to calculate state-level estimates with greater precision, making comparisons between 2013 and 2014 feasible.

[1] Rothbaum, J. 2015. "Bridging a Survey Redesign Using Multiple Imputation: An Application to the 2014 CPS ASEC." U.S. Census Bureau SEHSD Working Paper 2015-15.

NEW HEALTH INSURANCE COVERAGE CONTENT

The new point-in-time coverage measure and more detail about out of household coverage are available in separate research files. The point-in-time measure captures current coverage at the time of the interview.

So, the 2015 CPS, which asks about coverage in 2014, also now provides a measure of current coverage from February to April 2015. The out of household coverage variable includes detail on if the coverage was employer-based or direct purchase. The Census Bureau provides example code for how to incorporate the out of household information into recodes for employer-based and direct purchase coverage. The Census Bureau is currently developing the imputation routines for the remainder of the new content, including the questions about exchange participation and employer-offers of coverage. This content will be available at a future date.

FILE LOCATIONS

This section references both the calendar year and survey year to provide clarity with the point-in-time measure. For example, the 2015 CPS survey includes a February to April 2015 point-in-time measure and a measure of past year coverage for 2014 estimates.

The 2015 CPS, 2014 estimates, file and replicate weight file is available at the Census Bureau FTP site. These files and documentation are in a format similar to past files. The files described below are needed to access the 2013 income consistent research file (the 2014 CPS) and the new point-in-time coverage and out of household coverage variables from the 2014 and 2015 CPS surveys. The files in Table 1 are available at the Census Bureau Demographic Extract File Site. Example SAS code is provided in the Appendix to combine all of the files from the 2014 survey. Similar code can be used for the 2015 survey to merge the point-in-time coverage and out of household coverage variables onto the main CPS file.

TABLE 1: 2014 AND 2015 CPS DATA FILES

DESCRIPTION	FILE NAME
2015 CPS Survey	
Point-in-time variable (Feb. to April 2015 estimates)	asec15_now_anycov_resdes.dat
Out of household coverage (2014 estimates)	asec15_outtyp.dat
2014 CPS Survey	
Point-in-time variable (Feb. to April 2014 estimates): 30,000 addresses	asec14_now_anycov_resdes.dat
Point-in-time variable (Feb. to April 2014 estimates): 68,0000 addresses	asec14_now_anycov.dat
Out of household coverage (2013 estimates)	asec14_outtyp_full.dat
Income consistent household file (2013 estimates)	hhld.sas7bdat
Income consistent family file (2013 estimates)	family.sas7bdat
Income consistent person file (2013 estimates)	person.sas7bdat
Replicate weights for full sample	cps_asec_ascii_repwgt_2014_fullsample.dat

APPENDIX

Example SAS Code to Create a Combined File

```
/* ------------------------------------------------------------------------------------------------------------------*/
/* Merging the multiple 2014 CPS files together to create a combined analytic file for                               */
/* 2013 income and health insurance coverage estimates and the 2014 February to April                                */
/* point-in-time health insurance coverage estimates                                                                 */
/* March 2016                                                                                                        */
/* Developed by the University of Minnesota                                                                          */
/* State Health Access Data Assistance Center (SHADAC)                                                               */

/* Download the following files from http://www.census.gov/housing/extract_files/toc/data/                           */
/* hhld.sas7bdat, family.sas7bdat, person.sas7bdat,                                                                  */
/* cps_asec_ascii_repwgt_2014_fullsample.dat                                                                         */
/* asec14_now_anycov_resdes.dat, asec14_now_anycov.dat                                                               */
/* asec14_outtyp_full.dat                                                                                            */
/* ------------------------------------------------------------------------------------------------------------------*/

/* ------------------------------------------------------------------------------------------------------------------*/
/*                                                STEP 1                                                             */
/* ------------------------------------------------------------------------------------------------------------------*/
/* Merge the household, family, and person files together                                                            */
/* Note that we are using primary family information for all related household members;                              */
/* we are not separating out sub-families.                                                                           */
/* To keep sub-family information merge on PHF_SEQ instead of PF_SEQ                                                 */
```

```
libname sas '.' ;

data hhld ;
  set sas.hhld ;
  ph_seq = h_seq ;
run ;

proc sort data=hhld ;
   by ph_seq ;
run ;

data person ;
  set sas.person ;
  fh_seq = ph_seq ;
  ffpos = pf_seq ; /* use phf_seq to separate out related subfamilies */
run ;

proc sort data=person ;
   by ph_seq pf_seq ; /* use phf_seq to separate out related subfamilies */
run ;

proc sort data=sas.family out=family ;
  by fh_seq ffpos ;
run ;

data temp ;
  merge person
        hhld (where=(h_hhtype=1)) ;
  by ph_seq ;
run ;

proc sort data=temp ;
  by fh_seq ffpos ;
run ;

data temp2 ;
  merge temp (in=a)
        family (in=b);
  by fh_seq ffpos ;
  if a ;
run ;


/* ---------------------------------------------------------------------------------------------------------------------- */

/*                                                STEP 2                                                              */

/* ---------------------------------------------------------------------------------------------------------------------- */
```

```
/*Create a SAS file of the replicate weights and merge onto the estimates file                    */

/* Read in replicate weight file using code provided by the Census Bureau available at           */

/* http://thedataweb.rm.census.gov/ftp/cps_ftp.html#cpsmarch                                      */


filename link
'CPS_ASEC_ASCII_REPWGT_2014_FULLSAMPLE.DAT';

filename replist
‘CPS_ASEC_ASCII_REPWGT_2014_FULLSSAMPLE.LST';

* Add SAS library;
libname sas ‘.';


data sas.repwgt_fullsample_2014;
  infile link lrecl=1456;
  input
    @1  pwwgt0 f9.4
    @10  pwwgt1 f9.4
    @19  pwwgt2 f9.4
    @28  pwwgt3 f9.4
    @37  pwwgt4 f9.4
    @46  pwwgt5 f9.4
    @55  pwwgt6 f9.4
    @64  pwwgt7 f9.4
    @73  pwwgt8 f9.4
    @82  pwwgt9 f9.4
    @91  pwwgt10 f9.4
    @100  pwwgt11 f9.4
    @109  pwwgt12 f9.4
    @118  pwwgt13 f9.4
    @127  pwwgt14 f9.4
    @136  pwwgt15 f9.4
    @145  pwwgt16 f9.4
    @154  pwwgt17 f9.4
    @163  pwwgt18 f9.4
    @172  pwwgt19 f9.4
    @181  pwwgt20 f9.4
    @190  pwwgt21 f9.4
    @199  pwwgt22 f9.4
    @208  pwwgt23 f9.4
    @217  pwwgt24 f9.4
    @226  pwwgt25 f9.4
    @235  pwwgt26 f9.4
    @244  pwwgt27 f9.4
```

@253 pwwgt28 f9.4
@262 pwwgt29 f9.4
@271 pwwgt30 f9.4
@280 pwwgt31 f9.4
@289 pwwgt32 f9.4
@298 pwwgt33 f9.4
@307 pwwgt34 f9.4
@316 pwwgt35 f9.4
@325 pwwgt36 f9.4
@334 pwwgt37 f9.4
@343 pwwgt38 f9.4
@352 pwwgt39 f9.4
@361 pwwgt40 f9.4
@370 pwwgt41 f9.4
@379 pwwgt42 f9.4
@388 pwwgt43 f9.4
@397 pwwgt44 f9.4
@406 pwwgt45 f9.4
@415 pwwgt46 f9.4
@424 pwwgt47 f9.4
@433 pwwgt48 f9.4
@442 pwwgt49 f9.4
@451 pwwgt50 f9.4
@460 pwwgt51 f9.4
@469 pwwgt52 f9.4
@478 pwwgt53 f9.4
@487 pwwgt54 f9.4
@496 pwwgt55 f9.4
@505 pwwgt56 f9.4
@514 pwwgt57 f9.4
@523 pwwgt58 f9.4
@532 pwwgt59 f9.4
@541 pwwgt60 f9.4
@550 pwwgt61 f9.4
@559 pwwgt62 f9.4
@568 pwwgt63 f9.4
@577 pwwgt64 f9.4
@586 pwwgt65 f9.4
@595 pwwgt66 f9.4
@604 pwwgt67 f9.4
@613 pwwgt68 f9.4
@622 pwwgt69 f9.4
@631 pwwgt70 f9.4
@640 pwwgt71 f9.4
@649 pwwgt72 f9.4
@658 pwwgt73 f9.4
@667 pwwgt74 f9.4
@676 pwwgt75 f9.4
@685 pwwgt76 f9.4

@694 pwwgt77 f9.4
@703 pwwgt78 f9.4
@712 pwwgt79 f9.4
@721 pwwgt80 f9.4
@730 pwwgt81 f9.4
@739 pwwgt82 f9.4
@748 pwwgt83 f9.4
@757 pwwgt84 f9.4
@766 pwwgt85 f9.4
@775 pwwgt86 f9.4
@784 pwwgt87 f9.4
@793 pwwgt88 f9.4
@802 pwwgt89 f9.4
@811 pwwgt90 f9.4
@820 pwwgt91 f9.4
@829 pwwgt92 f9.4
@838 pwwgt93 f9.4
@847 pwwgt94 f9.4
@856 pwwgt95 f9.4
@865 pwwgt96 f9.4
@874 pwwgt97 f9.4
@883 pwwgt98 f9.4
@892 pwwgt99 f9.4
@901 pwwgt100 f9.4
@910 pwwgt101 f9.4
@919 pwwgt102 f9.4
@928 pwwgt103 f9.4
@937 pwwgt104 f9.4
@946 pwwgt105 f9.4
@955 pwwgt106 f9.4
@964 pwwgt107 f9.4
@973 pwwgt108 f9.4
@982 pwwgt109 f9.4
@991 pwwgt110 f9.4
@1000 pwwgt111 f9.4
@1009 pwwgt112 f9.4
@1018 pwwgt113 f9.4
@1027 pwwgt114 f9.4
@1036 pwwgt115 f9.4
@1045 pwwgt116 f9.4
@1054 pwwgt117 f9.4
@1063 pwwgt118 f9.4
@1072 pwwgt119 f9.4
@1081 pwwgt120 f9.4
@1090 pwwgt121 f9.4
@1099 pwwgt122 f9.4
@1108 pwwgt123 f9.4
@1117 pwwgt124 f9.4
@1126 pwwgt125 f9.4

```
    @1135  pwwgt126 f9.4
    @1144  pwwgt127 f9.4
    @1153  pwwgt128 f9.4
    @1162  pwwgt129 f9.4
    @1171  pwwgt130 f9.4
    @1180  pwwgt131 f9.4
    @1189  pwwgt132 f9.4
    @1198  pwwgt133 f9.4
    @1207  pwwgt134 f9.4
    @1216  pwwgt135 f9.4
    @1225  pwwgt136 f9.4
    @1234  pwwgt137 f9.4
    @1243  pwwgt138 f9.4
    @1252  pwwgt139 f9.4
    @1261  pwwgt140 f9.4
    @1270  pwwgt141 f9.4
    @1279  pwwgt142 f9.4
    @1288  pwwgt143 f9.4
    @1297  pwwgt144 f9.4
    @1306  pwwgt145 f9.4
    @1315  pwwgt146 f9.4
    @1324  pwwgt147 f9.4
    @1333  pwwgt148 f9.4
    @1342  pwwgt149 f9.4
    @1351  pwwgt150 f9.4
    @1360  pwwgt151 f9.4
    @1369  pwwgt152 f9.4
    @1378  pwwgt153 f9.4
    @1387  pwwgt154 f9.4
    @1396  pwwgt155 f9.4
    @1405  pwwgt156 f9.4
    @1414  pwwgt157 f9.4
    @1423  pwwgt158 f9.4
    @1432  pwwgt159 f9.4
    @1441  pwwgt160 f9.4
    @1450 h_seq f5.0
    @1455 pppos f2.0;
run;

%macro total;
data _null_;
  retain tot_pwwgt0-tot_pwwgt160 0;
  set sas.repwgt_fullsample_2014 end = last;
  %do i = 0 %to 160;
    tot_pwwgt&i + pwwgt&i;
  %end;
  if last then do;
    file replist;
    put 'Sum of replicate weights';
```

```
    put;
    %do i = 0 %to 160;
       put "   PWWGT&i = " @16 tot_pwwgt&i f15.4;
    %end;
  end;
run;
%mend total;
%total;

/* Merge the replicate weights onto the estimates file                    */

proc sort data=temp 2 ;
  by h_seq pppos ;
run ;


data temp3 ;
  merge sas.repwgt_fullsample_2014
      temp2 ;
  by h_seq pppos ;
run ;



/* ------------------------------------------------------------------------------------------------------------------*/

/*                                          STEP 3                                                                */

/* ------------------------------------------------------------------------------------------------------------------*/

/*Create a SAS file of the point-in time coverage variables and merge onto the estimates file      */

filename link_red
'asec14_now_anycov_redes.dat'; /* 30,000 addresses sample */

filename link

'asec14_now_anycov.dat'; /* 68,000 addresses sample */


* Add SAS library;
libname sas '.';

proc format;
    value now_anycov
              1 = 'covered/insured'
              2 = 'not covered/uninsured';


data sas.anycov_2014_redes;
  infile link_red lrecl=8;
```

```
  input
    @1 h_seq f5.0
    @6 ppposold f2.0
     @8 now_anycov f1.0;

     format pppos f2.0;
     pppos = 40 + ppposold;
run;

data sas.anycov_2014;
  infile link lrecl=8;
  input
    @1 h_seq f5.0
    @6 ppposold f2.0
     @8 now_anycov f1.0;

     format pppos f2.0;
     pppos = 40 + ppposold;
run;

data now_anycov ;
 set sas.anycov_2014
    sas.anycov_2014_redes ;
run ;

proc sort data=now_anycov ;
 by h_seq pppos ;
run ;


/* Merge the point-in-time coverage variable onto the estimates file                    */


proc sort data=temp3 ;
 by h_seq pppos ;
run ;

data temp4 ;
 merge now_anycov
      temp3 ;
 by h_seq pppos ;
run ;

/* ------------------------------------------------------------------------------------------------------------------------*/

/*                                          STEP 4                                      */

/* ------------------------------------------------------------------------------------------------------------------------*/

/*Create a SAS file of the out of household coverage variable and merge onto the estimates file    */
```

```
filename link_hh
'asec14_outtyp_full.dat';


* Add SAS library;
libname sas '.';

proc format;
     value outtyp
      0 = 'Does not have coverage through someone outside household'
      1 = 'Employer-based insurance plan'
      2 = 'Direct-purchase insurance plan'
      3 = 'Other insurance plan through someone outside household' ;

     value i_outtyp
      0 = 'Not allocated'
                1 = 'Allocated' ;
run;


data sas.outtyp_2014_full;
  infile link_hh lrecl=10;
  input
     @1 h_seq f5.0
     @6 ppposold f2.0
      @8 outtyp f2.0
     @10 i_outtyp f1.0;

      format pppos f2.0;
      pppos = 40 + ppposold;
run;


proc sort data=sas.outtyp_2014_full;
  by h_seq pppos ;
run ;

data final_cps2013 ;
  merge sas.outtyp_2014_full
       temp4 ;
  by h_seq pppos ;
run ;

/* ---------------------------------------------------------- END ----------------------------------------------------------*/
```