

User Guide

March 2024 CPS Auxiliary Data

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User Guide: March 2024 CPS Auxiliary Data

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I. Introduction

This User Guide serves as documentation to increase transparency, replicability and usability of the Auxiliary Data and tables published in the Health Bulletin and Technical Appendix. Specifically, it includes information on accessing the Current Population Survey (CPS) and Auxiliary Data variables, as well as a high-level summary of the dataset(s) and an overview of the file layouts. The User Guide also describes the programming algorithms (including pseudo-code) for the tables presented in both the Health Bulletin and Technical Appendix and the file merging process that can be performed between the Auxiliary Data and the raw CPS for deeper analysis. The User Guide concludes with a description of data limitations and other considerations.

II. Data Overview

While the variables needed to reproduce the Health Bulletin tables are all present in the Auxiliary Data, some of these are from the March 2024 Annual Social and Economic Supplement to the Current Population Survey (March CPS) and others are edited or imputed. Users who wish to either replicate the Technical Appendix tables or create custom tabulations that require additional CPS variables not present in the Auxiliary Data file will need to be familiar with the process for linking the Auxiliary Data File to the CPS.

CPS Data

The raw March CPS data may be accessed in SAS, DOS/Windows (ascii), or CSV format from the Census Bureau at <https://www.census.gov/data/datasets/time-series/demo/cps/cps-asec.html>. There are three types of records in the data: household, family, and person. While most of the variables used to produce the Bulletin are found in the person level records, some of the summary variables used (such as state of residence (household), number of persons in the household (household) or poverty level (family)) are obtained from the (household/family) records and linked to the person level, by an ID matching process.

The CSV and SAS files include the household file (hhpub24), family file (ffpub24) and person file (pppub24), as well as replicate weights (asec_csv_repwgt_2024, asec_sas_repwgt_2024), the latter of which are not used in the Auxiliary Data.¹ Records may be linked across household, family, and person level by matching the variables H_SEQ to FH_SEQ and PH_SEQ (the unique household identifier). Within a household, the variable FFPOS uniquely identifies each family. Within a family, the variable PPPOS uniquely identifies each person. A family record may be linked to a person by matching PF_SEQ on the person level file to FFPOS on the family level file. For additional information, refer to Section 3-1 of the 2024 Annual Social and Economic Supplement (ASEC) Technical Documentation.²

The ascii dataset contains 298,975 records, including household, family, and person level, in a single file. The file is hierarchical, rectangular, and column delimited. The technical documentation, which is found at <https://www2.census.gov/programs-surveys/cps/techdocs/cpsmar24.pdf>, provides additional detail on file structure and linking.

The Auxiliary Data file is in the same order as the original Census issued file (person level only) and can be used with the full person level CPS file by matching PH-SEQ and A-LINENO. Alternatively, linking raw CPS variables to the Auxiliary Data file may also be accomplished using the same methodology as described above for household, family and person records.

¹ There are also instructions for using the ASEC Public Use Replicate Weights and sample code to verify replicate weights.

² <https://www2.census.gov/programs-surveys/cps/techdocs/cpsmar24.pdf>

Auxiliary Data Variables

Each variable included in the Auxiliary Data is described in the memo “Layout of the March 2024 CPS Auxiliary Data (ASCII)”, dated April 25, 2025, as well as in the SAS and Stata data command files. A copy of the layout table is shown below. The Auxiliary Data is a flat, person level file with 144,265 records which contains raw household, family, and person level variables as well as imputed and edited variables. Raw CPS variables are named consistently with the CPS codebook. The first variable (PH_SEQ) is the unique household identifier (H_SEQ, FH_SEQ, PH_SEQ). The third and fourth variables (FFPOS and PPPOS) are the family and person identifiers, respectively. These fields (specifically PH-SEQ and A-LINENO) allow the user to link back to the raw CPS household, family, and person level files. The Auxiliary Data is provided in ASCII, SAS and Stata formats for the user’s convenience.

Layout of the Auxiliary Data file

COL	Variable	Description	Source
1	PH_SEQ	Household sequence number	CPS, unedited
2	H_NUMPER	Number of persons in household (range 1-16)	CPS, unedited
3	FFPOS	Family number (range 1-8)	CPS, unedited
4	PPPOS	Person identifier (range 41-56)	CPS, unedited
5	A_LINENO	Roster line number (range 1-16)	CPS, unedited
6	POVLL	CPS family poverty indicator -1 = Not in poverty universe 1 = Under .50 2 = .50 to .74 3 = .75 to .99 4 = 1.00 to 1.24 5 = 1.25 to 1.49 6 = 1.50 to 1.74 7 = 1.75 to 1.99 8 = 2.00 to 2.49 9 = 2.50 to 2.99 10 = 3.00 to 3.49 11 = 3.50 to 3.99 12 = 4.00 to 4.49 13 = 4.50 to 4.99 14 = 5.00 and over	CPS, unedited
7	A_AGE	Age 0-79 = 0-79 years of age 80 = 80-84 years of age 85 = 85+ years of age	CPS, unedited
8	HRSWK	Hours worked (longest job last year) Range of valid values is 0-99	CPS, unedited
9	ESIPH	ESI policyholder? 1 = yes 0 = no	OWNGRP
10	ESIDEP	ESI dependent? 1 = yes 0 = no	DEPGRP, OUTGRP
11	OPHIPH	Other private health insurance policyholder? 1 = yes 0 = no	OWNDIR

COL	Variable	Description	Source
12	OPHIDEP	Other private health insurance dependent? 1 = yes 0 = no	DEPDIR, OUTDIR
13	EXCHANGE	Enrolled in Marketplace (health exchange)? (for persons with OPHI coverage) 1 = yes 0 = no	MRK
14	NMCAID	Covered by Medicaid? 1 = yes 0 = no	CAID
15	NMCARE	Covered by Medicare? 1 = yes 0 = no	MCARE
16	CHAMP	Covered by Military? 1 = yes 0 = no	MIL, CHAMPVA, VACARE
17	OTHER	Covered by other insurance? 1 = yes 0 = no	OTHMT
18	CHIPP	Covered by Children's Health Insurance? 1 = yes 0 = no	PCHIP
19	UNINS	No health coverage? 0 = Infant born after calendar year 1 = Coverage for all of year 2 = No coverage for some of the year 3 = No coverage for full year	NO_COV_CYR
20	OUTTYP	Coverage from outside of household? 0 = no 1 = yes, ESI 2 = yes, OPHI 3 = yes, other	OUTGRP, OUTDIR, OUTMIL
21	CONCURR	Concurrent coverage last year? 0 = Infant born after calendar year 1 = No months with concurrent coverage 2 = Some months with concurrent coverage 3 = Concurrent coverage all year	COV_MULT_CYR
22	SUBSIDY	Any subsidized Marketplace coverage last year? 1 = yes 0 = no	MRKS, edited
23	PITESIPH	Point in time ESI policyholder? 1 = yes 0 = no	NOW_OWNGRP
24	PITESIDEP	Point in time ESI dependent? 1 = yes 0 = no	NOW_DEPGRP, NOW_OUTGRP
25	PITOPHIPH	Point in time other private health insurance policyholder? 1 = yes 0 = no	NOW_OWNDIR
26	PITOPHIDEP	Point in time other private health insurance dependent? 1 = yes 0 = no	NOW_DEPDIR, NOW_OUTDIR

COL	Variable	Description	Source
27	PITEXCHANGE	Point in time enrolled in Marketplace (health exchange)? 1 = yes 0 = no	NOW_MRK
28	PITNMCAID	Point in time covered by Medicaid? 1 = yes 0 = no	NOW_CAID
29	PITNMCARE	Point in time covered by Medicare? 1 = yes 0 = no	NOW_MCARE
30	PITCHAMP	Point in time covered by Military? 1 = yes 0 = no	NOW_MIL, NOW_CHAMPVA, NOW_VACARE
31	PITOTHER	Point in time covered by other insurance? 1 = yes 0 = no	NOW_OTHMT
32	PITCHIPP	Point in time covered by Children's Health Insurance? 1 = yes 0 = no	NOW_PCHIP
33	PITUNINS	Point in time uninsured? 1 = uninsured 0 = insured	NOW_COV
34	PITOUTTYP	Point in time coverage from outside of household? 0 = no 1 = yes, ESI 2 = yes, OPHI 3 = yes, other	NOW_OUTGRP, NOW_OUTDIR, NOW_OUTMIL
35	PITSUBSIDY	Point in time any subsidized Marketplace coverage? 1 = yes 0 = no	NOW_MRKS
36	MARSUPWT	March supplement weight (float, 2 decimal places)	CPS, unedited
37	NEWWT_LASTYR	March supplement weight, set to 0 if infant born in CY 2024 (float, 2 decimal places)	MARSUPWT, edited
38	OFFER	Does your employer offer health insurance? (universe is all workers) 0 = n/a 1 = coverage through current employer 2 = offered, eligible, not enrolled 3 = offered, not enrolled, not eligible 4 = not offered	Imputed
39	PRIOR	Do you have ESI through a prior employer? (policyholders only) 0 = n/a 1 = yes 2 = no, current employer	Imputed

COL	Variable	Description	Source
40	NEWSECTOR	What sector is providing coverage? 0 = n/a 1 = Private 2 = Public, Federal 3 = Public, State 4 = Public, Local 5 = Self-employed, incorporated 6 = Self-employed, unincorporated	Imputed
41	NEWSIZE	What size employer provided the coverage? 0 = n/a 1 = <10 2 = 10 - 24 3 = 25 - 99 4 = 100 - 499 5 = 500 - 999 6 = 1000+	Imputed
42	EEPRIOR	Coverage through a prior employer (dependents only, attribute of policyholder) 0 = n/a 1 = yes, prior 2 = no, current employer	Imputed
43	PHLINE	Line number (A_LINENO) of policyholder 0 = no policyholder Valid: 1-13	GRPLIN1
44	SIFLAG	Was coverage fully insured or self-insured? 0 = n/a 1 = self-insured 2 = fully-insured	Imputed
45	HMOFLAG	What type of plan are you covered by? 0 = n/a 1 = HMO 2 = PPO 3 = POS 4 = HDED	Imputed
46	NEWSIZE_200	What size employer provided the coverage (with split at 200)? 0 = n/a 1 = <10 2 = 10 - 24 3 = 25 - 99 4 = 100 - 199 5 = 200 - 499 6 = 500 - 999 7 = 1000+	Imputed
47	LEVEL	Was coverage level funded? (universe is smaller employers (<200)) 0 = n/a 1 = level-funded 2 = not level-funded	Imputed
48	FUNDING2	Was coverage self-insured/level-funded or fully-insured? 0 = n/a 1 = self-insured/level-funded 2 = fully insured	Imputed

COL	Variable	Description	Source
49	RETFLAG	Is prior coverage retiree or COBRA? (universe is PRIOR=1 or EEPRIOR=1) 0 = n/a 1 = retiree 2 = COBRA	Imputed
50	NEWSECTOR2	Sector of dependent coverage (for those with ESI as both policyholder and dependent, when PH link is available on CPS file) Valid: 1-6 (same values as NEWSECTOR)	Imputed
51	NEWSIZE2	Size of employer providing dependent coverage (for those with ESI as both policyholder and dependent, when PH link is available on CPS file) Valid: 1-6 (same values as NEWSIZE)	Imputed
52	NEWSIZE2_200	Size of employer providing dependent coverage, (for those with ESI as both policyholder and dependent, when PH link is available on CPS file), including break at size 200 Valid: 1-7 (same values as NEWSIZE_200)	Imputed
53	UNION	Coverage through union? (for ESI policyholders only, non-self- employed) 0 = n/a 1 = yes, union 2 = no, not union	Imputed
54	EEUNION	Coverage through a union? (for ESI dependents only, based on policyholder attributes) 0 = n/a 1 = yes, union 2 = no, not union	Imputed
55	UNIONWORK	Union? (for non-self-employed workers only, current employment status) 0 = n/a 1 = yes, union 2 = no, not union	Imputed
56	AV	Actuarial value (active ESI policyholder records only) -9 = n/a Range of valid values: 0.0000 to 0.9910	Imputed
57	AVCELLAVG	Cell based average actuarial value (AV) (active ESI policyholder records only) -9 = n/a Range of valid values: 0.0000 to 0.9512	Imputed
58	AVPLANTYPE	Plan type used for AVs? (active ESI policyholder records only) -9 = n/a 1 = HMO 2 = PPO 3 = POS 5 = HRA 6 = HSA	Imputed

COL	Variable	Description	Source
59	MSPFLAG	Medicare Secondary Payer variable (all Medicare) 0 = Person does not have Medicare 1 = Medicare is secondary (ESI Primary) 2 = Medicare is primary (may or may not have ESI)	Imputed
60	OOPEXP	Out of pocket expenditures on over-the-counter purchases and medical equipment (sum of POTC-VAL and PMED-VAL) Range of valid values: \$0 to \$200,200	POTC-VAL, PMED-VAL
61	OLDSTATE	Old state variable Range of valid values: 11 to 95	GESTFIPS
62	MCDEXPAN	Is person in a Medicaid expansion state? (all persons) 1 = yes 0 = no	Imputed
63	EMPSIZE	Edited employer size variable - state & federal mapped to 1000+ (all workers) 0 = n/a 1 = <10 2 = 10 - 24 3 = 25 - 99 4 = 100 - 499 5 = 500 - 999 6 = 1000+	NOEMP, edited
64	EMPSECTOR	Longest job class of worker (LJCW) (all workers) 0 = n/a 1 = private 2 = federal 3 = state 4 = local 5 = self-employed, incorporated 6 = self-employed, unincorporated or farm 7 = without pay	LJCW, unedited

Universe for Employer Sponsored Insurance

The tables in the 2024 Health Bulletin use slightly different definitions depending on how the table is set up and the universe defined, in particular with respect to employer sponsored insurance (ESI) coverage. The tables in Section 1 (Health Insurance in the United States) are both non-hierarchical (coverage from all sources) and hierarchical (from primary source), while Section 2 restricts to workers and those in Sections 3 and later look at the entire universe of persons with ESI.

Only Tables 1a and 1b are non-hierarchical. With respect to ESI, policy holders are counted once, and dependents are counted once. If a person is both, they are counted twice in Table 1b but in Table 1a this only occurs if the second sector of coverage (NEWSECTOR2) is known. The total number in both Tables 1a and 1b (ESI Total) does not double count policy holder and dependents, but it does contain the gross number of persons with ESI.

Tables 1c and 1d are hierarchical, which means that the total ESI is slightly lower, as those persons with ESI and Medicare, where Medicare is primary payer, are counted in the Medicare category. The ESI totals in these tables do not match later tables where all persons with ESI were tabulated, including those with Medicare as the primary payer.

Given the hierarchy used in the tables, if a person is interested in looking at ESI but excluding when Medicare pays first, the variable MSPFLAG can be used to exclude those with a value of 2 (Medicare is primary).

Similarly, if a person is interested in looking at gross counts of ESI coverage provided by private (or public) sector employers – including when a person has coverage as both a policy holder and a dependent, the variables NEWSIZE2 and NEWSECTOR2 provide information about the source of that secondary (dependent) ESI coverage.

III. Tables in the Health Bulletin

Algorithms (pseudo-code) for each table is provided to enable users to replicate the tables published in the 2024 Health Bulletin. All tables are weighted, most using weights (NEWWT_LASTYR) based on the March Supplemental Weight (variable MARSUPWT) but adjusted for infants born in 2024 having a weight of zero. Tables that explicitly tabulate infants use the actual March supplemental weights. All variable names are taken from the variable listing shown in the table above.

The following is a listing of the logic (pseudo-code) used to create each of the tables in the Health Bulletin by section.

Section 1: Health Insurance in the United States Tables

Table 1A. Health Insurance Coverage from All Sources by State: CY 2023

- Universe is all people (331.7 million), insurance is non-hierarchical (persons are counted for each type of insurance they hold, and so can appear in multiple columns)
- Note: NEWSECTOR2 is only valid for those with coverage as both a policyholder and a dependent and if the dependent maintains a valid link to the policyholder on the CPS file.
- Created using an array of table[row][column], where
 - Row = state, sorted alphabetically on output
 - Column = type of insurance
 - Weight = NEWWT_LASTYR
- Persons are tabulated based on insurance coverage categories as follows
 - If ESI covered (ESIPH == 1 or ESIDEP == 1)
 - Column = 2
 - Table[row][column] += NEWWT_LASTYR
 - If coverage is from private sector employer (NEWSECTOR == 1 or NEWSECTOR > 4)
 - Column = 3
 - Table[row][column] += NEWWT_LASTYR
 - If coverage 2 if from private sector employer (NEWSECTOR2 == 1 or NEWSECTOR2 > 4)
 - Column = 3
 - Table[row][column] += NEWWT_LASTYR
 - If coverage is from public sector employer (NEWSECTOR >= 2 and NEWSECTOR <= 4)
 - Column = 4
 - Table[row][column] += NEWWT_LASTYR
 - If coverage 2 is from public sector employer (NEWSECTOR2 >= 2 and NEWSECTOR2 <= 4)
 - Column = 4
 - Table[row][column] += NEWWT_LASTYR
 - If Medicare (NMCARE == 1)
 - Column = 5
 - Table[row][column] += NEWWT_LASTYR
 - If other private insurance (OPHIPH == 1 or OPHIDEP == 1)
 - Column = 6
 - Table[row][column] += NEWWT_LASTYR
 - If any other insurance (CHIPP == 1 or CHAMP == 1 or NMCAID == 1 or OTHER == 1)
 - Column = 7
 - Table[row][column] += NEWWT_LASTYR
 - If NO insurance (not assigned into any of columns 2 through 7)
 - Column = 8

- Table[row][column] += NEWWT_LASTYR
- Else insured
 - Column = 1
 - Table[row][column] += NEWWT_LASTYR

Table 1B. Health Insurance Coverage from All Sources by Age: CY 2023

- Universe is all people (331.7 million), insurance is non-hierarchical (persons counted for each type of insurance they hold)
- Created using an array of table[row][column], where
 - Row = type of insurance
 - Column = age group
 - Weight = NEWWT_LASTYR
- Assign age group (column)
 - If AGE is under 18, column = 1
 - If AGE is 18 to 25, column = 2
 - If AGE is 26 to 64, column = 3
 - If AGE is 65 or over, column = 4
- Persons are tabulated based on insurance coverage categories as follows:
 - If ESI covered (ESIPH == 1 or ESIDEP == 1)
 - Row = 2
 - Table[row][column] += NEWWT_LASTYR
 - If ESI policy holder (ESIPH == 1)
 - Row = 3
 - Table[row][column] += NEWWT_LASTYR
 - If ESI dependent (ESIDEP == 1)
 - Row = 4
 - Table[row][column] += NEWWT_LASTYR
 - If Medicare (NMCARE == 1)
 - Row = 5
 - Table[row][column] += NEWWT_LASTYR
 - If other private insurance (OPHIPH == 1 or OPHIDEP == 1)
 - Row = 6
 - Table[row][column] += NEWWT_LASTYR
 - If other private insurance policy holder (OPHIPH == 1)
 - Row = 7
 - Table[row][column] += NEWWT_LASTYR
 - If other private insurance dependent (OPHIDEP == 1)
 - Row = 8
 - Table[row][column] += NEWWT_LASTYR
 - If any other insurance (CHIPP == 1 or CHAMP == 1 or NMCAID == 1 or OTHER == 1)
 - Row = 9
 - Table[row][column] += NEWWT_LASTYR
 - If NO insurance (not assigned into any of columns 2 through 9)
 - Row = 10
 - Table[row][column] += NEWWT_LASTYR
 - Else insured
 - Row = 1
 - Table[row][column] += NEWWT_LASTYR

Table 1C. Health Insurance Coverage from Primary Source by State: CY 2023

- Universe is all people (331.7 million), insurance is hierarchical (persons tabulated by primary source of insurance)
- Created using an array of table[row][column], where
 - Row = state, sorted alphabetically on output
 - Column = type of insurance - if ESI, what is sector of employer that provides main coverage
 - Weight = NEWWT_LASTYR
- Assign insurance status:
 - If Medicare primary (NMCARE == 1 and MSPFLAG == 2)
 - Column = 5
 - ELSE
 - If ESI covered (ESIPH == 1 or ESIDEP == 1)
 - Column = 2
 - Table[row][column] += NEWWT_LASTYR
 - If employer providing coverage is private sector (NEWSECTOR == 1 or NEWSECTOR > 4)
 - Column = 3
 - ELSE
 - If employer providing coverage is public sector (NEWSECTOR >= 2 and NEWSECTOR <= 4))
 - Column = 4
 - ELSE
 - If other private insurance (OPHIPH == 1 or OPHIDEP == 1)
 - Column = 6
 - ELSE
 - If any other insurance (CHIPP == 1 or CHAMP == 1 or NMCAID == 1 or OTHER == 1)
 - Column = 7
 - If NO insurance (not assigned into any of columns 2 through 7)
 - Column = 8
 - Table[row][column] += NEWWT_LASTYR
 - If insured (column is not 8), tabulate all insured into column 1
 - Table[row][1] += NEWWT_LASTYR

Table 1D. Health Insurance Coverage from Primary Source by Age: CY 2023

- Universe is all people (331.7 million), insurance is hierarchical (persons tabulated by primary source of insurance)
- Created using an array of table[row][column], where
 - Column = age group
 - Row = type of insurance
 - Weight = NEWWT_LASTYR
- Assign age group (column)
 - If AGE is under 18, column = 1
 - If AGE is 18 to 25, column = 2
 - If AGE is 26 to 64, column = 3
 - If AGE is 65 or over, column = 4
- Assign insurance status:
 - If Medicare is primary (NMCARE == 1 and MSPFLAG == 2)
 - Row = 5
 - ELSE

- If ESI covered (ESIPH == 1 or ESIDEP == 1)
 - Row = 2
 - Table[row][column] += NEWWT_LASTYR
 - If ESI policy holder (ESIPH == 1)
 - Row = 3
 - ELSE
 - If ESI dependent (ESIDEP == 1)
 - Row = 4
 - ELSE
 - If other private insurance (OPHIPH == 1 or OPHIDEP == 1)
 - Row = 6
 - Table[row][column] += NEWWT_LASTYR
 - If OPHI policy holder (OPHIPH == 1)
 - Row = 7
 - ELSE
 - If OPHI dependent (OPHIDEP == 1)
 - Row = 8
 - ELSE
 - If any other insurance (CHIPP == 1 or CHAMP == 1 or NMCAID == 1 or OTHER == 1)
 - Row = 9
 - If NO insurance (not assigned into any of rows 2 through 9)
 - Row = 10
 - Table[row][column] += NEWWT_LASTYR
 - If insured (row is not 10), tabulate all insured into row 1
 - Table[1][column] += NEWWT_LASTYR

Table 2A. Insurance Coverage of Workers from Primary Source by Employer Offers of Health Insurance and Employer Size: CY 2023

- Universe is all workers (based on variable OFFER > 0), 173.2 million
- Insurance is hierarchical (persons tabulated by primary source of insurance)
- Created using an array of table[block][row][column], where
 - Block = employer size
 - Row = offer status
 - Column = type of insurance - if ESI, what is sector of employer that provides main coverage
 - Weight = NEWWT_LASTYR
- Assign employer size (block)
 - If size < 25 (EMPSIZE <= 2)
 - Block = 1
 - If size is 25 to 99 (EMPSIZE == 3)
 - Block = 2
 - If size is 100 to 499 (EMPSIZE = 4)
 - Block = 3
 - If size is 500+ (EMPSIZE > 4)
 - Block = 4
- Assign offer status (row = OFFER), such that
 - Row = 1 means covered through current employer
 - Row = 2 means eligible but not enrolled
 - Row = 3 means employer offers, worker not eligible
 - Row = 4 means employer does not offer

- Finally, assign insurance status:
 - If Medicare primary (NMCARE == 1 and MSPFLAG == 2)
 - Column = 5
 - ELSE
 - If ESI covered (ESIPH == 1 or ESIDEP == 1)
 - Column = 2
 - Table[block][row][column] += NEWWT_LASTYR
 - If employer providing coverage is private sector (NEWSECTOR == 1 or NEWSECTOR > 4))
 - Column = 3
 - ELSE
 - If employer providing coverage is public sector (NEWSECTOR >= 2 and NEWSECTOR <= 4)
 - Column = 4
 - ELSE
 - If other private insurance (OPHIPH == 1 or OPHIDEP == 1)
 - Column = 6
 - ELSE
 - If any other insurance (CHIPP == 1 or CHAMP == 1 or NMCAID == 1 or OTHER == 1)
 - Column = 7
 - If NO insurance (not assigned into any of columns 2 through 7)
 - Column = 8
- Table[block][row][column] += NEWWT_LASTYR

Table 2B. Insurance Coverage of Full-Time Workers from Primary Source by Employer Offers of Health Insurance and Employer Size: CY 2023

- Universe is all full-time workers (based on OFFER > 0 and HRSWK >= 35), 139.8 million
- Insurance is hierarchical
- Created using an array of table[block][row][column], where
 - Block = employer size
 - Row = offer status
 - Column = type of insurance
 - Weight = NEWWT_LASTYR
- Follow logic of Table 2A (above)

Table 2C. Insurance Coverage of Part-Time Workers from Primary Source by Employer Offers of Health Insurance and Employer Size: CY 2023

- Universe is all part-time workers (based on OFFER > 0 and HRSWK < 35), 33.4 million
- Insurance is hierarchical
- Created using an array of table[block][row][column], where
 - Block = employer size
 - Row = offer status
 - Column = type of insurance
 - Weight = NEWWT_LASTYR
- Follow logic of Table 2A (above)

Section 2: Employer-Sponsored Health Insurance Tables

Table 3A. All Persons with Employer-Sponsored Insurance by State, Funding Status, and Sector Providing Coverage: CY 2023

- Universe is all persons with ESI (ESIPH == 1 or ESIDEP == 1), 178.2 million
- Created using an array of table[block][row][column], where
 - Row = state, sorted alphabetically on output
 - Block = sector of employer providing main coverage
 - Column = funding (self-insured or fully)
 - Weight = NEWWT_LASTYR
- If ESI policy holder or dependent (ESIPH == 1 or ESIDEP == 1)
 - If employer providing coverage is private sector (NEWSECTOR == 1 or NEWSECTOR > 4)
 - Block = 1
 - Else public sector coverage
 - Block = 2
 - If self-insured (SIFLAG == 1)
 - Column = 1
 - Else fully insured
 - Column = 2
 - Table[block][row][column] += NEWWT_LASTYR

Table 3B. All Persons with Employer-Sponsored Insurance by Size, Funding Status, and Sector Providing Coverage: CY 2023

- Universe is all persons with ESI (ESIPH == 1 or ESIDEP == 1), 178.2 million
- Created using an array of table[block][row][column], where
 - Row = size of employer providing coverage
 - Block = sector of employer providing main coverage
 - Column = funding (self-insured or fully)
 - Weight = NEWWT_LASTYR
- If ESI policy holder or dependent (ESIPH == 1 or ESIDEP == 1)
 - Row = NEWSIZE
 - If employer providing coverage is private sector (NEWSECTOR == 1 or NEWSECTOR > 4)
 - Block = 1
 - Else public sector coverage
 - Block = 2
 - If self-insured (SIFLAG == 1)
 - Column = 1
 - Else fully insured
 - Column = 2
 - Table[block][row][column] += NEWWT_LASTYR

Table 3C. All Persons with Employer-Sponsored Insurance by State, Policyholder Status, and Sector Providing Coverage: CY 2023

- Universe is all persons with ESI (ESIPH == 1 or ESIDEP == 1), 178.2 million
- Created using an array of table[block][row][column], where
 - Row = state, sorted alphabetically on output
 - Block = sector of employer providing main coverage
 - Column = policy holder or dependent, hierarchical
 - Weight = NEWWT_LASTYR

- If ESI policy holder or dependent (ESIPH == 1 or ESIDEP == 1)
 - If employer providing coverage is private sector (NEWSECTOR == 1 or NEWSECTOR > 4)
 - Block = 1
 - Else public sector coverage
 - Block = 2
 - If ESI policyholder (ESIPH == 1)
 - Column = 1
 - Else if ESI dependent (ESIDEP == 1)
 - Column = 2
 - Table[block][row][column] += NEWWT_LASTYR

Table 3D. All Persons with Employer-Sponsored Insurance by State, Funding Status, and Policyholder Status: CY 2023

- Universe is all persons with ESI (ESIPH == 1 or ESIDEP == 1), 178.2 million
- Created using an array of table[block][row][column], where
 - Row = state, sorted alphabetically on output
 - Block = funding (self-insured or fully)
 - Column = ESI policy holder or dependent, hierarchical
 - Weight = NEWWT_LASTYR
- If ESI policy holder or dependent (ESIPH == 1 or ESIDEP == 1)
 - If self-insured (SIFLAG == 1)
 - Block = 1
 - Else fully insured
 - Block = 2
 - If ESI policyholder (ESIPH == 1)
 - Column = 1
 - ELSE
 - if ESI dependent (ESIDEP == 1)
 - Column = 2
 - Table[block][row][column] += NEWWT_LASTYR

Table 4. All Persons with Employer-Sponsored Insurance by Policyholder Status, Sector, and Size of Employer Providing Coverage: CY 2023

- Universe is all persons with ESI (ESIPH == 1 or ESIDEP == 1), 178.2 million
- Created using an array of table[page][block][row][column], where
 - Page = size of employer providing coverage (NEWSIZE)
 - Block = sector of employer providing main coverage
 - Row = policy holder vs dependent, hierarchical
 - Column = current versus former employer status
 - Weight = NEWWT_LASTYR
- If ESI policyholder (ESIPH == 1)
 - Row = 1
 - If insured by a current employer (PRIOR == 2)
 - column = 1
 - ELSE insured by a prior employer
 - If have COBRA (RETFLAG == 2)
 - Column = 2
 - Else it is retiree coverage
 - Column = 3
- ELSE if ESI dependent (ESIDEP == 1)

- Row = 2
- If insured by a current employer (EPPRIOR == 2)
 - Column = 1
- ELSE insured by a prior employer
 - If have COBRA (RETFLAG == 2)
 - Column = 2
 - Else it is retiree coverage
 - Column = 3
- If either ESI policy holder or dependent (ESIPH == 1 or ESIDEP == 1)
 - Page is size of employer providing coverage (page = NEWSIZE)
 - If employer providing coverage is private sector (NEWSECTOR == 1 or NEWSECTOR > 4)
 - Block = 1
 - Else public sector coverage
 - Block = 2
 - Table[page][block][row][column] += NEWWT_LASTYR

Table 5A. All Persons with Employer-Sponsored Insurance by State and Plan Type (Private Sector Only): CY 2023

- Universe is all persons with ESI (ESIPH == 1 or ESIDEP == 1) with ESI and employer providing the main source of coverage is private sector employer, 134.7 million
 - Does not include those with private sector dependent employer coverage secondary to public sector policy holder employer coverage
- Created using an array of table[row][column], where
 - Row = state, sorted alphabetically on output
 - Column = plan type
 - Weight = NEWWT_LASTYR
- If ESI policy holder or dependent (ESIPH == 1 or ESIDEP == 1)
 - If sector of employer providing main coverage is private (NEWSECTOR == 1 or NEWSECTOR > 4)
 - Column = HMOFLAG
 - Table[row][column] += NEWWT_LASTYR

Table 5B. All Persons with Employer-Sponsored Insurance by Sector and Size of Employer Providing Coverage, Funding and Plan Type: CY 2023

- Universe is all persons with ESI (ESIPH == 1 or ESIDEP == 1), 178.2 million
- Created using an array of table[page][block][row][column], where
 - Page = sector of employer providing main coverage
 - Row = size of employer providing main coverage
 - Block = funding status (self-insured or fully)
 - Column = plan type
 - Weight = NEWWT_LASTYR
- If ESI policy holder or dependent (ESIPH == 1 or ESIDEP == 1)
 - If employer providing coverage is private sector (NEWSECTOR == 1 or NEWSECTOR > 4)
 - Page = 1
 - Else public sector coverage and
 - Page = 2
 - Determine size of employer providing coverage, combining smallest categories
 - If NEWSIZE <= 2
 - Row = 1

- Else
 - Row = NEWSIZE – 1
- Block = funding status (block = SIFLAG)
- Column = plan type (column = HMOFLAG)
- Table[page][block][row][column] += NEWWT_LASTYR

Table 5C. All Persons with Employer-Sponsored Insurance by Sector, Funding, and Plan Type: CY 2023

- Universe is all persons with ESI (ESIPH == 1 or ESIDEP == 1), 178.2 million
- Created using an array of table[page][block][row][column], where
 - Page = sector of employer providing main coverage
 - Row = policy holder vs. dependent, hierarchical
 - Block = funding status (self-insured or fully)
 - Column = plan type
 - Weight = NEWWT_LASTYR
- If ESI policy holder or dependent (ESIPH == 1 or ESIDEP == 1)
 - If employer providing coverage is private sector (NEWSECTOR == 1 or NEWSECTOR > 4)
 - Page = 1
 - Else if state/local coverage (NEWSECTOR == 2 or NEWSECTOR == 3)
 - Page = 2
 - Else if federal coverage (NEWSECTOR == 4)
 - Page = 3
 - If ESI policy holder (ESIPH == 1)
 - Row = 1
 - Else If ESI dependent (ESIDEP == 1)
 - Row = 2
 - Block = funding status (block = SIFLAG)
 - Column = plan type (column = HMOFLAG)
 - Table[page][block][row][column] += NEWWT_LASTYR

Table 6. Persons with Employer-Sponsored Insurance (excluding self-employed) by Sector of Employer Providing Coverage, Funding, and Union Membership: CY 2023

- Universe is all persons with ESI who are **not** self-employed (172.4 million)
- Created using an array of table[page][block][row][column], where:
 - Page = current or prior employer insurance status
 - Row = union status
 - Block = sector of employer providing main coverage, excluding self employed
 - Column = funding status (self-insured or fully)
 - Weight = NEWWT_LASTYR
- If ESI policy holder and not self-employed (ESIPH == 1 and NEWSECTOR <= 4)
 - If union (UNION == 1)
 - Row = 1
 - Else not union
 - Row = 2
 - If coverage is from a current employer (PRIOR == 2)
 - Page = 1
 - Else if coverage is COBRA (RETFLAG == 2)
 - Page = 2
 - Else if coverage is retiree (RETFLAG == 1)
 - Page = 3

- If employer providing coverage is private sector (NEWSECTOR == 1)
 - Block = 1
 - Else covered from public sector
 - Block = 2
 - If self-insured (SIFLAG == 1)
 - Column = 1
 - Else fully insured
 - Column = 2
 - Table[page][block][row][column] += NEWWT_LASTYR
- Else if ESI dependent and coverage is not self-employed related (ESIDEP == 1 and NEWSECTOR <= 4)
 - If union (EEUNION == 1)
 - Row = 1
 - Else not union, and
 - Row = 2
 - If coverage is from a current employer (EEPRIOR == 2)
 - Page = 1
 - Else if coverage is COBRA (RETFLAG == 2)
 - Page = 2
 - Else if coverage is retiree (RETFLAG == 1)
 - Page = 3
 - If employer providing coverage is private sector (NEWSECTOR == 1)
 - Block = 1
 - Else covered from public sector
 - Block = 2
 - If self-insured (SIFLAG == 1)
 - Column = 1
 - Else fully insured
 - Column = 2
 - Table[page][block][row][column] += NEWWT_LASTYR

Table 7. Average Actuarial Values for Active ESI Policyholders by Sector of Employer Providing Coverage, Funding, and Plan Type: CY 2023

- Universe is active ESI policy holders (those with coverage from a current employer), 82.8 million
- Created using an array of Table[page][block][row][column], where
 - Block = sector of employer providing main coverage
 - Row = plan type
 - Column = funding status (self-insured or fully)
 - Page used for either weight (page = 0) or actuarial value (AV) (page = 1)
 - Weight = NEWWT_LASTYR
- Specifically:
 - If active ESI policy holder (ESIPH == 1 and PRIOR == 2)
 - If employer providing coverage is private sector (NEWSECTOR == 1 or NEWSECTOR > 4)
 - Block = 1
 - Else public sector coverage
 - Block = 2
 - Row = plan type (row = HMOFLAG)
 - If self-insured (SIFLAG == 1)
 - Column = 1
 - Else fully insured

- Column = 2
 - $\text{Table}[0][\text{block}][\text{row}][\text{column}] += \text{NEWWT_LASTYR}$
 - $\text{Table}[1][\text{block}][\text{row}][\text{column}] += (\text{AV} * \text{NEWWT_LASTYR})$
- Table cells are summed and then average AVs are calculated
 - For block = 0 to 2, row = 0 to 4, column = 0 to 2
 - If $\text{Table}[0][\text{block}][\text{row}][\text{column}]$ is not zero
 - $\text{Table}[1][\text{block}][\text{row}][\text{column}] /= \text{Table}[0][\text{block}][\text{row}][\text{column}]$

Section 3: Level-Funding for Smaller Employers

Table 8. Persons with Employer-Sponsored Insurance by Funding Status, for Smaller (<200) Firms: CY 2023

- Universe is all persons with ESI with coverage from a smaller (under size 200) employer, 44.8 million
- Created using an array of Table[page][block][row][column], where
 - Row = funding status (self- versus fully)
 - Column = level funding status
 - Weight = NEWWT_LASTYR
- If covered by ESI (ESIPH == 1 or ESIDEP == 1)
 - If coverage from smaller employer (NEWSIZE_200 <= 4)
 - If self-insured (SIFLAG == 1)
 - Row = 1
 - Else fully insured
 - Row = 2
 - If level funded (LEVEL == 1)
 - Column = 1
 - Else not level funded
 - Column = 2
 - Table[row][column] += NEWWT_LASTYR

Table 9. Persons with Employer-Sponsored Insurance, by Funding Status, Size, and Sector Providing Coverage: CY 2023 (numbers in millions)

- Universe is all persons with ESI, 178.2 million
- Created using an array of Table[block][row][column], where
 - Block = sector of employer providing main coverage primary
 - Row = size, using NEWSIZE_200
 - Column = funding (self-insured or level vs. fully)
 - Weight = NEWWT_LASTYR
- If covered by ESI (ESIPH == 1 or ESIDEP == 1)
 - If employer providing coverage is private sector (NEWSECTOR == 1 or NEWSECTOR > 4)
 - Block = 1
 - Else public sector coverage
 - Block = 2
 - Determine row by consolidating smallest two sizes:
 - If NEWSIZE_200 <= 2
 - Row = 1
 - Else
 - row = NEWSIZE_200 – 1
 - If self-insured or level funded (FUNDING2 == 1)
 - Column = 1
 - Else
 - Column = 2
 - Table[block][row][column] += NEWWT_LASTYR

Section 4: Out-of-Pocket Spending Tables

Table 10A. Mean Out-of-Pocket Spending by Age and Primary Insurance: CY 2023

- Universe is all people, 331.7 million, insurance is hierarchical (note persons with Medicare and ESI are categorized based on who is primary payer using MSPFLAG)
- Created using an array of table[block][row][column], where
 - Block = age group
 - Row = population or OOP spending (OOPEXP)
 - Column = type of insurance
 - Weight = NEWWT_LASTYR
- Determine age group
 - If AGE is under 18, block = 1
 - If AGE is 18 to 25, block = 2
 - If AGE is 26 to 54, block = 3
 - If AGE is 55 to 64, block = 4
 - If AGE is 65 or over, block = 5
- If Medicare primary (NMCARE == 1 and MSPFLAG == 2)
 - Column = 4
- ELSE
 - If ESI policy holder (ESIPH == 1)
 - Column = 2
 - ELSE
 - If ESI dependent (ESIDEP == 1)
 - Column = 3
 - ELSE
 - If Medicare (NMCARE == 1)
 - Column = 4
 - ELSE
 - If other private insurance policy holder (OPHIPH == 1)
 - Column = 5
 - ELSE
 - If other private insurance dependent (OPHIDEP == 1)
 - Column = 6
 - ELSE
 - If any other insurance (CHIPP == 1 or CHAMP == 1 or NMCAID == 1 or OTHER == 1)
 - Column = 7
 - If NO insurance (not assigned into any of columns 2 through 7)
 - Column = 8
- Table[block][1][column] += NEWWT_LASTYR
- Table[block][2][column] += (NEWWT_LASTYR * OOPEXP)
- Table cells are summed and then average spending is calculated
 - For block = 0 to 5, column = 1 to 8
 - If Table[block][1][column] is not zero
 - $\text{Table[block][2][column]} / \text{Table[block][1][column]}$

Table 10B. Mean Out-of-Pocket Spending by Persons with Spending > \$0 by Age and Primary Insurance: CY 2023

- Universe is all people with OOP spending, 269.0 million, insurance is hierarchical
- Created using an array of table[block][row][column], where
 - Block = age group

- Row = population or OOP spending (OOPEXP)
 - Column = type of insurance
 - Weight = NEWWT_LASTYR
- If person has OOP spending (OOPEXP > 0)
 - Follow logic for Table 10a above

Section 5: Point-in-Time Insurance Coverage Tables

Table 11A. Point-in-Time versus Ever Insured in Prior Year by Age: CY 2023 vs. Date of Questionnaire (numbers in millions)

- Universe is all persons, including infants, 332.4 million
- Not all 0-year-olds on the CPS file had an insurance status for the prior year (CY 2023), as some were born in 2024. To simplify, the variable “NEWWT_LASTYR” has been added and it has a zero value for those who were born after CY 2023 and thus have an insurance only in 2024 (the point-in-time status). Therefore, we define them as follows:
 - Age = 0 and NEWWT_LASTYEAR = 0
 - All other persons are not considered “infants” and thus have an insurance status during CY 2023
- Table is created using an array of Table[block][row][column], where
 - Row = age group
 - Block = prior year insurance status
 - Column = PIT (point-in-time) insurance status
 - **Weight = MARSUPWT**
- If infant born in CY 2024 (as defined above):
 - Block = 0, row = 0
 - If point in time uninsured (PITUNINS == 1)
 - Column = 2
 - Else
 - Column = 1
 - Table[block][row][column] += MARSUPWT
- Else not an infant
 - Determine age group
 - If AGE is under 18, row = 1
 - If AGE is 18 to 25, row = 2
 - If AGE is 26 to 54, row = 3
 - If AGE is 55 to 64, row = 4
 - If AGE is 65 or over, row = 5
 - If ever insured in prior year (UNINS == 1 or UNINS == 2)
 - Block = 1
 - Else
 - Block = 2
 - If point in time uninsured (PITUNINS == 1)
 - Column = 2
 - Else
 - Column = 1
 - Table[block][row][column] += MARSUPWT

Table 11B. Point-in-Time versus Ever Insured in Prior Year by State: CY 2023 vs Date of Questionnaire

- Universe is all persons, including infants, 332.4 million
- Not all 0-year-olds on the CPS file had an insurance status for the prior year (CY 2023), as some were born in 2024. To simplify, the variable “NEWWT_LASTYR” has been added and it has a zero value for those who were born after CY 2023 and thus have an insurance only in 2024 (the point-in-time status). Therefore, we define them as follows:
 - Age = 0 and NEWWT_LASTYEAR = 0
 - All other persons are not considered “infants” and thus have an insurance status during CY 2023

- Table is created using an array of Table[block][row][column], where
 - Row = state, sorted alphabetically on output
 - Block = Point-in-time (2024) insurance status
 - Column = prior year insurance status
 - **Weight = MARSUPWT**
- If infant born in 2024 (as defined above):
 - Column = 3 (infant)
 - If point in time uninsured (PITUNINS == 1)
 - Block = 2
 - Else
 - Block = 1
 - Table[block][row][column] += MARSUPWT
- Else not an infant
 - If ever insured in prior year (UNINS == 1 or UNINS == 2)
 - Column = 1
 - Else
 - Column = 2
 - If point in time uninsured (PITUNINS == 1)
 - Block = 2
 - Else
 - Block = 1
 - Table[block][row][column] += MARSUPWT

Section 6: Individual Insurance Coverage

Table 12. Persons with Other Private Health Insurance by Age and Type of Coverage: CY 2023

- Universe is all people with other private insurance, 33.8 million
- Created using an array of table[row][column], where
 - Row = age group
 - Column = type of insurance, hierarchical
 - Weight = NEWWT_LASTYR
- If have other private insurance (OPHIPH == 1 or OPHIDEP == 1)
 - If have exchange coverage (EXCHANGE == 1)
 - Column = 1
 - Else
 - Column = 2
 - Determine age group
 - If AGE is under 18, row = 1
 - If AGE is 18 to 25, row = 2
 - If AGE is 26 to 54, row = 3
 - If AGE is 55 to 64, row = 4
 - If AGE is 65 or over, row = 5
 - Table[row][column] += NEWWT_LASTYR

Table 13. Persons with Exchange Coverage by Subsidy: CY 2023

- Universe is all people with exchange coverage (subset of other private insurance), 13.3 million
- Created using an array of table[row][column], where
 - Row = poverty group
 - Column = subsidized or not
 - Weight = NEWWT_LASTYR
- If coverage is through an exchange (OPHIPH == 1 or OPHIDEP == 1, and EXCHANGE == 1)
 - Set poverty band
 - If under 250% of poverty (POVLL <= 8)
 - Row = 1
 - If 250% to 399% of poverty (POVLL >= 9 and <= 11)
 - Row = 2
 - If 400% of poverty or more (POVLL >= 12)
 - Row = 3
 - Set subsidy category
 - If subsidized (SUBSIDY == 1)
 - Column = 1
 - Else not subsidized
 - Column = 2
 - Table[row][column] += NEWWT_LASTYR

IV. Tables in the Technical Appendix

Pseudo-code for each table is provided to enable users to replicate the tables published in the Technical Appendix. All tables are weighted and use the March Supplemental Weight, recoded such that infants born in 2024, having no prior year insurance status are reweighted to 0 (variable NEWWT_LASTYR). Variable names are taken from the variable listing shown in Table 1, above, unless otherwise noted as being from the raw CPS data. For determining workers, the variable OFFER was used as all persons who worked in the prior year have a valid value of greater than zero for this variable.

Section 1: Offers of Coverage

Exhibit 1: Persons with ESI in Own Name, by Employment and Offer Status

- Universe is all ESI policy holders (ESIPH == 1), 95.9 million
- Work status refers to work in prior year
- Weight = NEWWT_LASTYR
- Creating an array of table[row], where
 - Row = employment and offer status such that:
 - If a worker (OFFER > 0), then row = 1, and
 - table[row] += NEWWT_LASTYR
 - If coverage from current employer (OFFER == 1)
 - Row = 2
 - Table[row] += NEWWT_LASTYR
 - Else, coverage from a former employer
 - Row = 3
 - Table[row] += NEWWT_LASTYR
 - Else not a worker (did not work in past year)
 - Row = 4
 - Table[row] += NEWWT_LASTYR

Exhibit 2: ESI Coverage of Workers, by Offer Status

- Universe is all workers (OFFER > 0), 173.2 million
- Weight is NEWWT_LASTYR
- Creating an array of table[row], where
 - Row = offer status
- If a worker (OFFER > 0)
 - Row = 6
 - Table[row] += NEWWT_LASTYR
 - If employer offers coverage (OFFER >= 1 and OFFER <= 3)
 - Row = 1
 - Table[row] += NEWWT_LASTYR
 - Row = offer status (OFFER + 1), such that
 - OFFER = 1, row = 2 means coverage from current employer
 - OFFER = 2, row = 3 means employee eligible but not enrolled
 - OFFER = 3, row = 4 means employee not eligible, not enrolled
 - OFFER = 4, row = 5 means employer does not offer coverage
 - Table[row] += NEWWT_LASTYR

Section 2: Sector and Size of Coverage

Exhibit 3: ESI Coverage, by Hierarchical Status and Sector of Coverage

- Universe is all ESI policy holders and dependents (ESIPH == 1 or ESIDEP == 1), 178.2 million
- Created using an array of table[row][column], where
 - Column = ESI PH vs. ESI Dependent, hierarchical
 - Row = combination of sector and current/former source of coverage
 - Weight = NEWWT_LASTYR
- If an ESI policy holder (ESIPH == 1)
 - Column = 1
 - If employer providing coverage is private sector (NEWSECTOR == 1 or NEWSECTOR > 4)
 - Table[0][column] += NEWWT_LASTYR
 - If coverage through a prior employer (PRIOR == 1)
 - Table[2][column] += NEWWT_LASTYR
 - Else coverage is through a current employer
 - Table[1][column] += NEWWT_LASTYR
 - Else coverage is from public sector
 - table[3][column] += NEWWT_LASTYR
 - If coverage through a prior employer (PRIOR == 1)
 - Table[5][column] += NEWWT_LASTYR
 - Else coverage is through a current employer
 - Table[4][column] += NEWWT_LASTYR
- Else if an ESI dependent (ESIDEP == 1)
 - Column = 2;
 - If employer providing coverage is private sector (NEWSECTOR == 1 or NEWSECTOR > 4)
 - Table[0][column] += NEWWT_LASTYR
 - If coverage through a prior employer (EEPRIOR == 1)
 - Table[2][column] += NEWWT_LASTYR
 - Else coverage is through a current employer
 - Table[1][column] += NEWWT_LASTYR
 - Else coverage is from public coverage
 - Table[3][column] += NEWWT_LASTYR
 - If coverage through a prior employer (If EEPRIOR == 1)
 - Table[5][column] += NEWWT_LASTYR
 - Else coverage is through a current employer
 - Table[4][column] += NEWWT_LASTYR

Exhibit 4: ESI Coverage, by Hierarchical Status and Employer Size

- Universe is all ESI policy holders and dependents (ESIPH == 1 or ESIDEP == 1), 178.2 million
- Created using an array of table[row][column], where
 - Column = ESI policy holder vs. ESI dependent, hierarchical
 - Row = combination of size and current/former source of coverage
 - Weight = NEWWT_LASTYR
- If an ESI policy holder (ESIPH == 1)
 - Column = 1
 - If employer providing coverage is under size 100 (NEWSIZE <= 3)
 - Table[0][column] += NEWWT_LASTYR
 - If coverage through a prior employer (PRIOR == 1)
 - Table[2][column] += NEWWT_LASTYR

- Else coverage is through a current employer
 - Table[1][column] += NEWWT_LASTYR
 - Else employer providing coverage is size 100 or larger
 - Table[3][column] += NEWWT_LASTYR
 - If coverage through a prior employer (PRIOR == 1)
 - Table[5][column] += NEWWT_LASTYR
 - Else coverage is through a current employer
 - table[4][column] += NEWWT_LASTYR
- Else if an ESI dependent (ESIDEP == 1)
 - Column = 2
 - If employer providing coverage is under size 100 (NEWSIZE <= 3)
 - Table[0][column] += NEWWT_LASTYR
 - If coverage through a prior employer (PRIOR == 1)
 - Table[2][column] += NEWWT_LASTYR
 - Else coverage is through a current employer
 - Table[1][column] += NEWWT_LASTYR
 - Else employer providing coverage is size 100 or larger
 - Table[3][column] += NEWWT_LASTYR
 - If coverage through a prior employer (PRIOR == 1)
 - Table[5][column] += NEWWT_LASTYR
 - Else coverage is through a current employer
 - Table[4][column] += NEWWT_LASTYR

Section 3: Funding Status and Plan Type

Exhibit 5: ESI Funding Status, Self-Insured vs. Fully Insured

- Universe is all ESI policy holders and dependents (ESIPH == 1 or ESIDEP == 1), 178.2 million
- Created using an array of table[row], where
 - Row = funding status (self-insured or fully insured)
 - Weight = NEWWT_LASTYR
- If an ESI policy holder (ESIPH == 1) or ESI Dependent (ESIDEP == 1)
 - If self-insured (SIFLAG = 1)
 - Row = 1
 - Else fully insured
 - Row = 2
 - Table[row] += NEWWT_LASTYR

Exhibit 6a: Level-Funding Status for Persons with ESI from Smaller Employers

- Universe is ESI policy holders and dependents (ESIPH == 1 or ESIDEP == 1), with coverage from a smaller (under size 200) firm (uses NEWSIZE_200 <= 4), 44.8 million
- Created using an array of table[row], where
 - Row = funding status (self-insured or fully insured vs. level covered)
 - Weight = NEWWT_LASTYR
- If an ESI policy holder (ESIPH == 1) or ESI Dependent (ESIDEP == 1)
 - If coverage is from a smaller firm (NEWSIZE_200 >= 1 and NEWSIZE_200 <= 4)
 - If self-insured (SIFLAG = 1)
 - Table[1] += NEWWT_LASTYR
 - If level funded (LEVEL == 1)
 - Table[2] += NEWWT_LASTYR
 - Else not level funded
 - Table[3] += NEWWT_LASTYR
 - Else if fully insured (SIFLAG == 2)
 - Table[4] += NEWWT_LASTYR
 - If level funded (LEVEL == 1)
 - Table[5] += NEWWT_LASTYR
 - Else not level funded
 - Table[6] += NEWWT_LASTYR
 - Total all smaller is sum of self- plus fully insured
 - Table[7] = Table[1] + Table[4]

Exhibit 6b: Self- or Level-Funded versus Fully Insured for Persons with ESI from Smaller (<200) Employers

- Universe is ESI policy holders and dependents (ESIPH == 1 or ESIDEP == 1), with coverage from a smaller (under size 200) firm (uses NEWSIZE_200 <= 4), 44.8 million
- Created using an array of table[row], where
 - Row = funding status (self-insured or level vs. fully insured)
 - Weight = NEWWT_LASTYR
- If an ESI policy holder (ESIPH == 1) or ESI Dependent (ESIDEP == 1)
 - if coverage from a smaller firm (NEWSIZE_200 >= 1 and NEWSIZE_200 <= 4)
 - If self-insured or level funded (FUNDING2 == 1)
 - Table[1] += NEWWT_LASTYR
 - else
 - Table[2] += NEWWT_LASTYR

Exhibit 7: ESI Coverage, by Funding Status and Type of Plan

- Universe is all ESI policy holders and dependents (ESIPH == 1 or ESIDEP == 1), 178.2 million
- Created using an array of table[row][column], where
 - Row = funding status (self-insured or fully insured)
 - Column = plan type, specifically column = HMOFLAG;
 - Weight = NEWWT_LASTYR
- If an ESI policy holder (ESIPH == 1) or ESI Dependent (ESIDEP == 1)
 - If self-insured (SIFLAG == 1)
 - Row = 1
 - Table[row][column] += NEWWT_LASTYR
 - Else fully insured
 - Row = 2
 - Table[row][column] += NEWWT_LASTYR

Section 4: COBRA, Retiree and Medicare Secondary Payer

Exhibit 8: ESI Coverage from a Former Employer, by Age, Sector and Retiree vs. COBRA Coverage

- Universe is persons with ESI through a former employer (PRIOR == 1 or EEPRIOR == 1), 19.9 million
- Created using an array of table[row][column], where
 - Row = sector and type of prior coverage
 - Column = age group (<55, 55 to 64, 65+)
 - Weight = NEWWT_LASTYR
- If an ESI policyholder with coverage from a prior employer (PRIOR == 1)
 - If employer providing coverage is private sector (NEWSECTOR == 1 or NEWSECTOR > 4)
 - If retiree coverage (RETFLAG == 1)
 - Row = 1
 - Else COBRA
 - Row = 2
 - Else public sector coverage
 - If retiree coverage (RETFLAG == 1)
 - Row = 3
 - Else COBRA
 - Row = 4
 - Table[row][column] += NEWWT_LASTYR
- ELSE if an ESI dependent with coverage from a prior employer (EEPRIOR == 1)
 - If employer providing coverage is private sector (NEWSECTOR == 1 or NEWSECTOR > 4)
 - If retiree coverage (RETFLAG == 1)
 - Row = 1
 - Else COBRA
 - Row = 2
 - Else public sector coverage
 - If retired (RETFLAG == 1)
 - Row = 3
 - Else COBRA
 - Row = 4
 - Table[row][column] += NEWWT_LASTYR

Exhibit 9: Medicare Secondary Payer Coverage, by Age

- Universe is people with ESI and Medicare (NMCARE == 1 and (ESIPH == 1 or ESIDEP == 1)), 11.0 million
- Created using an array of table[row][column], where
 - Row = Medicare primary or secondary to ESI
 - Column = age group (<65, 65+)
 - Weight = NEWWT_LASTYR
 - If ESI and Medicare ((ESIPH == 1 or ESIDEP == 1) and NMCARE == 1)
 - If under age 65 (AGE < 65)
 - Column = 1
 - Else age is 65 or over
 - Column = 2
 - If Medicare is primary (MSPFLAG == 2)
 - Row = 1

- ELSE Medicare is secondary
 - Row = 2
- Table[row][column] += NEWWT_LASTYR

Section 5: Actuarial Values and Spending

Exhibit 10: Average Actuarial Values for Persons with Active ESI in Own Name, by Sector and Type of Plan

- Universe is people with ESI in own name from current employer (ESIPH == 1 and PRIOR == 2), 82.8 million
- Weight = NEWWT_LASTYR
- Created using an array of table[block][row][column], where
 - Row = sector of coverage (private vs public sector)
 - Column = plan type, including type of high-deductible plans
 - Block = either weight or actuarial value (AV)
- If ESI in own name from current employer (ESIPH == 1 and PRIOR == 2)
 - If employer providing coverage is private sector (NEWSECTOR == 1 or NEWSECTOR > 4)
 - Row = 1
 - Else coverage is from public sector
 - Row = 2
 - Column = plan type, including types of high-deductible plans
 - Column = AVPLANTYPE
 - Block = either weight or weight * AV
 - Block = 1 and
 - Table[row][column][block] += NEWWT_LASTYR
 - Block = 2 and
 - Table[row][column][block] += (NEWWT_LASTYR * AV)
- Table cells are summed, and then average AVs are calculated
 - First calculate total high deductible (column 4) as sum of plan types (columns) 5 and 6
 - Next calculate totals for all plan types (column 0) as sum of plan types (columns) 1 through 4
 - Finally calculate the weighted average AVs by dividing out weight
 - For row = 1 to 2, column = 0 to 6
 - If Table[row][column][1] is not zero
 - Table[row][column][2] /= Table[row][column][1]

Exhibit 11: Mean Out-of-Pocket (OOP) Spending, by Hierarchical Insurance

- Universe is all persons, 331.7 million
- Weight = NEWWT_LASTYR
- Created using an array of table[row][column], where
 - Row = hierarchical insurance
 - Column is either weighted counts or weighted average dollars
- If Medicare coverage is primary (NMCARE == 1 and MSPFLAG == 2),
 - Row = 3
- Else
 - If ESI policy holder (ESIPH == 1)
 - Row = 1
- Else
 - If ESI dependent (ESIDEP == 1)
 - Row = 2
- Else
 - If any other Medicare (MCARE == 1)
 - Row = 3
- Else

- If other private insurance policy holder (OPHIPH == 1)
 - Row = 4
 - Else
 - If other private insurance dependent (OPHIDEP == 1)
 - Row = 5
- Else
 - If any other insurance (CHIPP == 1 or CHAMP == 1 or NMCAID == 1 or OTHER == 1)
 - Row = 6
- If NO insurance (row not assigned to rows 1 through 6)
 - Row = 7
- Table[row][1] += NEWWT_LASTYR
- Table[row][2] += (NEWWT_LASTYR * OOPEXP)
- If insured (row is 1 through 6)
 - Row = 0
 - Table[row][1] += NEWWT_LASTYR
 - Table[row][2] += (NEWWT_LASTYR * OOPEXP)
- Table cells are summed and then weighted average OOP spending is calculated
 - For row = 0 to 8
 - If Table[row][1] is not zero
 - Table[row][2] /= Table[row][1]

Section 6: Union

Exhibit 12a: Union Membership or Coverage for All Workers (with or without ESI, no self-employed)

- Universe is all non-self-employed workers (OFFER > 0 and EMPSECTOR <= 4), 156.8 million
- Created using an array of table[row], where
 - Row = union membership
 - Weight = NEWWT_LASTYR
- If a worker and not self-employed (OFFER > 0 and EMPSECTOR <= 4)
 - Row = 3
 - Table[row] += NEWWT_LASTYR
 - If coverage is through a union (UNIONWORK == 1)
 - Row = 1
 - Else
 - Row = 2
 - Table[row] += NEWWT_LASTYR

Exhibit 12b: Union Membership or Coverage for All Persons with ESI (workers and non-workers), excluding the self-employed

- Universe is all ESI (ESIPH ==1 or ESIDEP ==1), not self-employed (NEWSECTOR <= 4), 172.4 million
- Created using an array of table[row], where
 - Row = union membership
 - Weight = NEWWT_LASTYR
- If an ESI policy holder, coverage not from self-employment (ESIPH == 1 and NEWSECTOR <= 4)
 - Row = 3
 - Table[row] += NEWWT_LASTYR
 - If coverage provided through a union (UNION == 1)
 - Row = 1
 - Else
 - Row = 2
 - Table[row] += NEWWT_LASTYR
- Else if an ESI dependent, coverage not from self-employment (ESIDEP == 1 and NEWSECTOR <= 4)
 - Row = 3
 - Table[row] += NEWWT_LASTYR
 - If coverage provided through a union (EEUNION == 1)
 - Row = 1
 - Else
 - Row = 2
 - Table[row] += NEWWT_LASTYR

Section 7: Health Insurance Marketplace (Exchange) Coverage

Exhibit 13: Marketplace Counts, by Subsidy

- Universe is all persons with Marketplace/exchange coverage (EXCHANGE == 1)
- Raw subsidy reciprocity uses the CPS Variable “MRKS” for “any subsidized marketplace coverage last year”. Values are 0 for infants, 1 for yes, 2 for no.
- Created using an array of table[row][column], where
 - Row = poverty level
 - Column = subsidy status
 - Weight = NEWWT_LASTYR
- If person has exchange coverage (EXCHANGE == 1)
 - If under 250% poverty (POVLL <= 8)
 - Row = 1
 - If 250% to 400% poverty (POVLL >= 9 and POVLL <= 11)
 - Row = 2
 - If 400% poverty or greater (POVLL >= 12)
 - Row = 3
 - Raw values for subsidy reciprocity:
 - If have subsidy (MRKS == 1)
 - Column = 1
 - Else no subsidy
 - Column = 2
 - Table[row][column] += NEWWT_LASTYR
 - Edited values for subsidy reciprocity:
 - If have subsidy (edited, SUBSIDY == 1)
 - Column = 3
 - Else no subsidy (edited)
 - Column = 4
 - Table[row][column] += NEWWT_LASTYR

V. Data Limitations and Considerations

There are a few limitations to the data and general considerations to take into account when working with the data.

- Some variables on the March CPS and on the Auxiliary Data File are continuous and custom breaks may be created, while others are categorical and have limited breaks. Users should consult the CPS codebook as well as the layout for the Auxiliary Data.
- All imputations were based on weighted results, and all tabulations are weighted.
 - Almost all tables use weights based on the March supplemental weight variable but adjusted for infants born in 2024 (age = 0) who are given a weight of zero.
 - Only tables that explicitly show infants (Health Bulletin Tables 11A and 11B) use the actual March supplemental weight.
 - Tables in the Health Bulletin containing cells with small sample sizes (weights under 50,000) had their values suppressed.
- Unless otherwise stated, insurance, income and employment information represent that from the prior (2023) year.
- No adjustments were made to the overall coverage estimates from the CPS. In particular, any undercounts in either the Medicaid or Exchange populations are as found in the survey.
- The Technical Appendix contains relevant reference links to better understand the CPS and its data.