Technical Appendix:
March 2011 CPS Auxiliary Data

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OVERVIEW OF THE 2011 CPS AUXILIARY DATA

The March Annual Social and Economic Supplement to the Current Population Survey (March CPS) is the data source most often used for estimating health insurance coverage in the U.S. population. There are, however, several important characteristics of health insurance that are not captured by the survey but are particularly relevant to employer sponsored insurance (ESI) coverage. To address these limitations, the U.S. Department of Labor (DOL) Employee Benefits Security Administration (EBSA) has produced an auxiliary data file which contains recoded and imputed employment and health insurance variables, and an annual bulletin with summary tables based on the enhanced data[1].

As part of the process in creating the March 2011 Auxiliary Data, we have updated our data sources to reflect the newest available information. We have removed data sources (including survey data) which are outdated or no longer published at regular intervals. This document describes the current imputations and edits performed in order to provide estimates of employer sponsored insurance in detail for calendar year (CY) 2010.

The imputations performed can be broken down into two main categories: those dealing with access to coverage and those that describe the coverage in detail. Access to coverage includes whether an employer provides coverage as well as details about that employer such as size (number of employees) and sector. Coverage characteristics include funding and plan type, estimates of retiree and COBRA coverage as well as union funding of health insurance coverage. A new variable, actuarial value, which represents the average value of an active employer sponsored health insurance plan, has also been imputed to active employees with health insurance in their own name.

In general, insurance and employment characteristics were imputed to employees as well as to other persons with employer sponsored insurance coverage in their own name. ESI dependents were given the characteristics of their primary policyholder (when that person could be found). Links for up to two policyholders were maintained for each dependent on the March CPS file so that secondary characteristics could also be identified. One policyholder link was maintained for ESI policyholders who were also dependents.

As mentioned above, our starting data set was the March 2011 Annual Social and Economic Supplement (ASEC) to the CPS. The following enhancements were then made:

- Source of coverage, employer offers of coverage: While the March CPS asks whether insurance coverage is provided by an employer, it does not distinguish if this coverage is from a current or former employer. The Medical Expenditure Panel Survey, Household Component (MEPS-HC), provided data on whether ESI coverage was from a current or former employer, and for workers, whether health insurance was offered to them by their

[1] New weights, benchmarked to the 2010 Decennial Census, have been incorporated into the process and are part of this updated (November 2012) version.

current employer. This data was the basis of our imputations and was taken from the survey years 2006 through 2009[2].

- Sector and size providing coverage: For persons with coverage from a former employer, it was necessary to impute both sector and size of the employer providing the coverage. This was done using the most recent three years of data (2008-2010) from the Medical Expenditure Panel Survey, Insurance Component (MEPS-IC), as provided by the Agency for Healthcare Research and Quality (AHRQ).

- Funding status, plan type and COBRA/retiree partition: Data from the MEPS-IC along with partitions and trends from the Kaiser/HRET Employer Health Benefits Surveys were used to impute funding status and type of coverage for those with ESI as well to partition coverage from a former employer into retiree and COBRA.

- Federal estimates: Data from the Office of Personnel Management (OPM) on employees (postal and non-postal), dependents and annuitants covered under the Federal Employees Health Benefits Program (FEHBP), by type of plan, was used to provide estimates at the Federal level.

- Union sponsorship: Data from the March CPS itself was used to identify persons who obtained coverage through a union plan. However, only a portion of the file contains responses for the union questions and so the results were first compared to similar data from the Kaiser/HRET 2010 Employer Health Benefits Survey[3], and were then used as the basis for the union imputation.

- Actuarial values: Analysis done for DOL/EBSA using the National Compensation Survey (2005) was used in addition with plan values from the Kaiser/HRET Employer Health Benefits Surveys in order to impute preliminary actuarial values onto active policyholder records.

These enhancements were implemented in 11 steps that are detailed below:

[2] Three years of data from the 2007-09 HC were used when possible, but due to limitations in data availability at the time of this exercise, some imputations were based on the 2006-08 HC.

[3] The CPS asks about union coverage at the person level while the KFF/HRET survey picks up plans that have union participation (a broader concept). CPS prevalence, although definitionally more narrow, was consistent with the KFF/HRET rates.

Step 1: Imputing coverage from a current versus former employer

The March CPS captures whether insurance coverage is provided by an employer, but not if the coverage is from the policyholder's current or former employer. To impute the employer status, MEPS-HC 2007-2009 data was averaged to calculate probabilities of having coverage through a former versus a current employer. This was enhanced with data from the 2008 through 2010 MEPS-IC, which provided counts of actives, retirees, and persons with COBRA coverage from non-Federal employers. Data from the FEHBP was used to provide estimates at the Federal level.

All March CPS records were initially checked to see if current versus former employer status could be determined with certainty. That is, if a person did not work at all during a year but had ESI in their own name then they were assigned coverage by a former employer. For all others, it was necessary to impute the source of the coverage. The 2007-2009 MEPS-HC was used to calculate probabilities of having coverage through a former employer by age, work status and presence of retiree income. These relative probabilities were adjusted in order to reproduce the target likelihood of coverage being from a former employer based on the MEPS-IC.

Valid codes for status were set as:

0 = no ESI
1 = coverage through a former employer
2 = coverage through a current employer.

For CY 2010, this process resulted in 73.0 million ESI policyholders with coverage through their current employer and 14.9 million with coverage through a former employer.

As a result of the imputation, persons with ESI in their own names were assigned as follows:

Persons with ESI in Own Name
by Employment Status
(numbers in millions)

Employment Status	Number with ESI
Total	87.9
Worked in past year	**77.5**
Coverage from current employer	73.0
Coverage from former employer	4.5
Did not work in past year	**10.4**

Step 2: Imputing if current employer offers ESI

While the March CPS captures whether individuals are covered by ESI it does not ask if an employee is offered insurance by his or her current employer. The imputation of coverage through a current versus former employer (described in the previous step) resulted in a subset of persons who, by definition, had an employer that offered coverage (workers with coverage from their current employer). For all other workers, however, it was necessary to impute whether or not their employer offered health insurance[4] and, if so, whether or not they were eligible for it.

Data from the 2007 through 2009 MEPS-HC was tabulated to calculate three year averages of offers and eligibility. These tabulations were converted to the probability of working for an offering employer and being eligible for coverage based on sector (private, Federal, and state/local), firm size (<50, 50-99, 100-499, and 500+) and hours worked (< 35 vs. 35 or more per week)

Valid codes for offer status at the person level were set to:

1 = Enrolled, coverage through current employer
2 = Employer offered, eligible, not enrolled
3 = Employer offered, not eligible, not enrolled
4 = Not offered

Once done, a final recode was performed such that Federal and state sector employees could not have the offer status "not offered" but were instead recoded to "offered, not eligible."

As a result of the imputation, persons who worked were partitioned in the following manner:

Coverage of Persons Who Worked
by Employer Offer Status
(numbers in millions)

Offer Status	Workers
Total	**153.7**
Employer offers coverage	**122.7**
Employee has coverage from employer	73.0
Employee offered (eligible), not enrolled	29.1
Employee not offered (not eligible), not enrolled	20.6
Employer does NOT offer coverage	**31.0**

[4] An employer is considered to offer coverage if it offers coverage to any employee, even if a specific employee is not offered the coverage due to eligibility issues.

Step 3: Imputing the sector that provides coverage

Given that the CPS provides information on current (March and past year) employment status, but not former employment, it was necessary to impute both sector and size of employers that provided coverage for those who had health insurance from a former employer. For those individuals who received pension or survivor's payments as reported in the March CPS, we used the sector of the employer that provided the payments to represent the sector providing insurance coverage. For those policyholders without such payments, the sector providing coverage was based on geography (state) and age of policyholder (under 55, 55-64 and 65+). We used data from the 2007 through 2009 MEPS-HC as well as the 2008 through 2010 MEPS-IC surveys and 2010 FEHBP data to determine target probabilities by these dimensions.

For dependents, the sector of the primary policyholder was used to determine where coverage was likely to have come from. For those few dependents without a link to a policyholder record, their own demographic characteristics (age, presence of survivor's income) were used to determine the sector providing coverage.

As a result of the imputations, persons were assigned to sectors in the following manner:

Coverage of all Persons with ESI
by ESI Status and Sector
(numbers in millions)

ESI Status	Sector	Total ESI
ESI In Own Name	Total	**87.9**
	Private Sector	66.0
	Current Employer	57.4
	Former Employer	8.7
	Public sector	21.9
	Current Employer	15.6
	Former Employer	6.2
ESI as Dependents	Total	**81.5**
	Private Sector	62.9
	Current Employer	58.0
	Former Employer	4.9
	Public sector	18.6
	Current Employer	16.0
	Former Employer	2.6

Step 4: Imputing the size of employer that provides coverage

The March CPS only provides information on current employer size. This means that for those individuals covered by a former employer, the size of the employer providing the health insurance had to be imputed. This imputation was done in a similar manner as the sector imputation.

The first step had all those with sector equal to either state or Federal government assigned the largest CPS size category (1000+). Next, all other persons were assigned a size based on state, age (under 55, 55 to 64, or 65+), and sector. As with sector, data from the MEPS-IC was the primary source. If a policyholder was not found, person characteristics of the dependent were used instead. Dimensions were essentially the same as those used for the policyholder imputation, except that the age category for dependents included younger groupings.

As a result of the imputations, persons were assigned to sizes in the following manner:

Coverage of all Persons with ESI
by ESI Status and Employer Size
(numbers in millions)

ESI Status	Size	Total ESI
ESI In Own Name	Total	**87.9**
	Employer size < 100	20.4
	Current Employer	19.8
	Former Employer	0.5
	Employer size 100+	67.5
	Current Employer	53.2
	Former Employer	14.4
ESI as Dependents	Total	**81.5**
	Employer size < 100	18.6
	Current Employer	18.3
	Former Employer	0.3
	Employer size 100+	62.9
	Current Employer	55.6
	Former Employer	7.3

Step 5: Imputing if coverage was fully-insured or self-insured

The March CPS contains no information about the health insurance plans held by survey respondents. One of the characteristics of health insurance plans is funding status: whether an employer sponsored insurance plan is fully-insured (the employer contracts with another organization to assume financial responsibility for the enrollees medical claims and administrative costs) or self-insured (the employer assumes some or all of these costs directly), All the information on plan funding for individuals with ESI has been imputed for the Bulletin as part of the Auxiliary Data.

Data on funding status, as well as plan type, for persons in non-Federal plans was obtained from tabulations of the 2008 through 2010 MEPS-IC files, provided by AHRQ. Data was presented at the state (or geographic region) level for each year, and while there was some variations over the period, the relative values of each state versus the country as a whole were consistent. In addition to the MEPS-IC information, we also looked at the Kaiser/HRET surveys from 2000 through 2010 to determine appropriate penetration levels of self-insurance by size of employer.

The 2010 MEPS-IC levels on self-insurance were used by sector (private vs. state/local) along with the three year state averages to determine state specific targets for persons with ESI. All persons enrolled in Federal plans, were assumed to be in fully-insured plans.

As a result of the imputation, persons were assigned funding status as follows:

Determining Funding Status:
Self- vs. Fully-Insured
(numbers in millions)

Funding Status	Number with ESI
Total	**169.4**
Self-Insured	91.5
Fully-Insured	77.8

Step 6: Imputing type of plan

As noted in the prior step, the March CPS does not contain information on the details of the health plan an individual is enrolled in. As with plan funding, all details on the type of plan held by a person were imputed for those covered by ESI. Prevalence of coverage by plan type (HMO, PPO, POS, or HDED (high deductible)) was based on data from the 2010 MEPS-IC and the 2010 Kaiser/HRET survey. This data was presented by funding status (self-insured vs. fully) and geography.[5] Imputations were done by these dimensions, as well as by size of employer.

For Federal plans, the allocation was based on actual FEHBP data from 2010 as obtained from the Office of Personnel Management (OPM). The data was given for employees (postal vs. other), annuitants (retirees), and dependents by plan type (HMO or not).

As a result of the imputation, persons were assigned plan type as follows:

Persons with ESI
by Funding Status and Type of Plan
(numbers in millions)

Funding Status	Total	HMO	PPO	POS	HDED
Total	**169.4**	**29.3**	**98.4**	**14.5**	**27.2**
In Self-Insured Plans	91.5	10.2	62.4	4.0	15.0
In Fully-Insured Plans	77.8	19.0	36.1	10.5	12.2

[5] Three years of data by state, or geographic region were used for those states that had small sample sizes.

Step 7: Imputing the partition of COBRA versus retiree coverage

The March CPS does not distinguish between ESI coverage provided by a "current" or "former" employer and so it lacks information on whether coverage by a former employer is retiree coverage or COBRA. As this information has become increasingly important to DOL, the partition into retiree vs. COBRA has been imputed for the Bulletin as part of the Auxiliary Data.

Our 2010 "target" counts of persons with either COBRA or retiree coverage was obtained from AHRQ, based on the 2010 MEPS-IC, and from OPM data for the Federal Employees Health Benefits Program (FEHBP). Partitioning persons assigned with coverage from a former employee into retiree or COBRA coverage was done based on person characteristics, using the CPS data itself as well as data from the MEPS-HC.

In general, policyholders were allocated first, with their dependents allocated according to policyholder characteristics. Dependents without policyholders (usually those with coverage from outside the household) were partitioned into retiree or COBRA coverage based on their own characteristics. In determining the allocation, the following March CPS characteristics were used: age, presence of pension income, sector providing coverage, and amount paid by employer towards coverage.

Age groups used were: under 55, 55 to 64, and 65+. Presence of pension income was based on the March CPS variable "source of retiree income" (or survivor's income, if a dependent), with this income assumed to be pension related if the source was either company or union pension, Federal government retirement, state or local government retirement, or U.S. railroad retirement. The amount paid by an employer towards coverage is captured by the March CPS and includes the following categories: unknown,[6] all, some, or none.

Some persons were assigned to either COBRA or retiree with "certainty" (that is, person level characteristics alone determined the type of coverage held), while others were assigned based on the likelihood of coverage being either COBRA or retiree along with the desired total counts of each type of coverage.

The allocation rules and guidelines for assigning individuals to "retiree" or "COBRA" coverage are listed below, based on whether there was certainty or probability involved.

If there was pension income present, status was decided with certainty as follows:

- If person had pension (or survivor's) income and coverage was from public sector, then coverage was deemed retiree.

- If person had pension (or survivor's) income and coverage was from private sector and employer payment was anything (including unknown) except "none," then coverage was deemed retiree.

[6] This includes "not in universe" for those policyholders found through either the "other coverage" questions or the verification questions.

- If person was under 65, and had pension (or survivor's) income, coverage from private sector, and employer payment was "none," then coverage was deemed "COBRA." If person was aged 65 or over, though, coverage was deemed retiree.

If no pension (or survivor's) income was present, then the partition between retiree and COBRA was determined as follows:

- The count of persons allocated to retiree or COBRA coverage based on presence of pension income was subtracted from the target counts of retiree and COBRA persons by sector and age.

- Data from the MEPS-HC and MEPS-IC were used to develop probabilities of retiree vs. COBRA coverage for this remaining group by age, employer payment and sector (for private, state and local coverage), while FEHBP data was used to determine the probability of retiree coverage for Federal covereds.

As a result of the COBRA and retiree assignments, persons with coverage from a former employer (policyholders and dependents combined) were partitioned as follows:

Coverage of Persons with ESI from a Former Employer

by Age, Sector and Retiree vs. COBRA

(numbers in millions)

Age	Sector	Total ESI
Under age 55	Total	**8.8**
	Private Sector	6.2
	Retiree coverage	1.8
	COBRA coverage	4.4
	Public Sector	2.6
	Retiree coverage	2.1
	COBRA coverage	0.5
Aged 55-64	Total	**4.9**
	Private Sector	2.7
	Retiree coverage	1.9
	COBRA coverage	0.8
	Public Sector	2.1
	Retiree coverage	2.1
	COBRA coverage	0.1
Aged 65+	Total	**8.8**
	Private Sector	4.6
	Retiree coverage	3.7
	COBRA coverage	0.9
	Public Sector	4.2
	Retiree coverage	4.2
	COBRA coverage	0.0

Recorded increases in the CPS non-working ESI population, along with updated FEHBP, MEPS-HC and –IC targets, resulted in higher shares of persons with coverage from a former employer, as well as a change in the distribution of this coverage by sector when compared to EBSA estimates from earlier years.

Step 8: Imputing if coverage was provided through a union arrangement

The March CPS provides limited information on union membership (A-UNMEM), and for nonmembers asks if the person is covered by a collective bargaining agreement (A-UNCOV). For simplicity, we summarized the two CPS union variables into a single one which was coded to have values of (1) union, or (2) not union. All persons who indicated either union membership or coverage through a collective bargaining agreement were considered "union." Those who responded in the negative to both questions were categorized as "not union." However, these union questions were asked for only one quarter of the working population (those who were in the survey during months 4 and 8). As a result, it was necessary to impute union membership to all other workers and union coverage to all persons with employer sponsored insurance coverage. This was done by creating three imputed variables for union status: one for ESI policy holders (union coverage), one for ESI dependents (union coverage), and one for all workers (union membership).

We began by assigning union status to those persons who were ESI policyholders with coverage from a current employer or coverage through COBRA. If the March CPS variables gave a valid union status, we assigned union coverage with certainty. For actives in the Federal sector, the target for union coverage (as a percent of total) was taken from the 2010 FEHBP data, where postal workers were used as a proxy for union covered persons. For all other persons, (those without a valid CPS union status who were in the private sector or had state or local coverage), it was necessary to impute whether coverage was through a union arrangement.

For those with coverage through a current employer, as well as those with coverage through COBRA, we used the probabilities generated from the quarter of the similar population for whom the March CPS provided information. Probability cells used were based on: age (<35, 35-55, 55-64, 65+), collapsed industry/sector of employer providing coverage (agriculture/forestry/fishing, mining, wholesale, retail, finance/insurance/real estate, services, construction, manufacturing, transportation/utilities, healthcare, government), size of employer providing coverage (<50, 50-499, 500+), and hours worked (<35, 35+).

For retired ESI policyholders in the private sector we had no current source of data. Thus, we used the relative proportions of union coverage from our earlier work in order to determine penetration in large versus small firms.

For ESI dependents (including those who were also policyholders) we created a variable with the same choices as that for policy holders. We used the affiliation of the primary policyholder wherever a link was available. In the absence of a direct link, the status was imputed based on the dependent characteristics (sector providing coverage, size providing coverage, former vs. current employer, and retiree vs. COBRA). For retiree coverage, the method was the same as mentioned for policyholders above, however age probability cells were based on age of policyholder.

Finally, a union membership variable (again with the same values) was imputed for all workers. ESI policyholders with coverage through their current employer were given with certainty the same status as the first imputed union variable. Those with former coverage, as well as those

workers without ESI in own name, were given their CPS value if a valid variable existed. All others were imputed based on the same probability cells mentioned above (age, industry, employer size and sector). Former coverage ESI policyholders who worked may be given a different union status here because this variable is based upon current employment, and the previous union variable was based on the characteristics of the employer who provided the ESI.

As a result of the union assignments/imputations, workers, ESI policyholders and ESI dependents were partitioned as follows:

Union Membership or Coverage

(numbers in millions)

Population	Union Status	Total ESI
All Workers (with or without ESI)	**Total**	**153.7**
	Union Members	19.6
	Not Union	134.1
All Persons with ESI[7] (workers and non-workers)	**Total**	**169.4**
	Union Coverage	33.3
	Not Union	136.0

[7] This includes both policyholders and dependents.

Step 9: Editing and imputing employer size for current workers

The March CPS contains an interval variable for size of employer for longest job held during the year. While this variable refers to firm size rather than the establishment or location the employee works at, tabulations suggested that not all respondents answer appropriately. While it was not possible to infer if responses by workers in the private sector included all employer locations when determining their employer size, it was assumed that persons working for a state or the Federal government should fall into the largest employer size category. Responses were edited accordingly.

New this year is a revision in the size categories on the March CPS. While previously there had been splits at 10, 25 and 100, the most recent March CPS partitions employer size at 10, 50 and 100. We have modified our analysis to use these new size categories. When necessary to partition at a size not found (for example size 20 for Medicare secondary payer splits), we have assumed a uniform distribution within size category and have assigned size accordingly.

Step 10: Imputing Medicare Secondary Payer (MSP)

When assigning primary coverage to individuals with more than one source of coverage during the year, the Bulletin ranks employer sponsored insurance (ESI) generally above all other sources. However, when a person has both Medicare and ESI, this is not always the case. Under Medicare rules, non-workers (retirees) with ESI always have Medicare as the primary payer. For workers, the primary payer for an individual with both sources of coverage depends on the size of the employer and whether the individual qualifies for Medicare due to age or disability. Since the March CPS does not ask individuals with multiple sources of coverage which of these two types of insurance is the primary payer, this variable had to be imputed for persons with ESI and Medicare.

In accordance with Medicare rules: For active employees (and their dependents) a determination of primary payer depends on age and employer size. For workers or their spouses who are over the age of 65, ESI is the primary payer if the employer size is 20 or more (and Medicare is the Secondary Payer (MSP)), while for those younger than 65, ESI is the primary payer if the employer size is 100 or more (and Medicare is the Secondary Payer (MSP)). For those workers with employer size of less than 20 or 100 respectively, Medicare is the primary payer.

As noted in the prior step, the March CPS does not have an employer size split at 20, but rather a category for size 10 to 49. We have assumed a uniform distribution within this interval, such that one fourth of the persons in this size group are randomly assigned to employers of size under 20, while three fourths are assigned to size 20 or greater[8]. For dependents with coverage from both Medicare and ESI, the dependent's age is used but the size category is obtained from the policyholder providing coverage. A variable has been included in the Auxiliary Data file for all persons with both ESI and Medicare in order to indicate primary payer.

As a result of the MSP imputation, we have the following coverage distribution:

Medicare Secondary Payer Coverage
By Age
(numbers in millions)

Age	MSP Status	Total ESI
Age < 65	**Total**	**1.6**
	Medicare Primary	1.0
	Medicare Secondary	0.6
Ages 65+	**Total**	**11.3**
	Medicare Primary	8.9
	Medicare Secondary	2.4

[8] We have made this assumption only for the determination of MSP coverage.

Step 11: Imputing preliminary actuarial values (AVs)

While the March CPS has begun collecting limited data on the cost of health insurance and annual medical expenditures, it does not collect the information required to determine the "actuarial value" of an individual's health insurance plan. "Actuarial value", or AV, represents the fraction of covered medical expenses paid for by a health insurance plan, calculated as an average over a standard population. Two new variables which represent the average value of an active employer sponsored health insurance plan have now been imputed to active employees with health insurance in their own name, and are included in the Auxiliary Data.

The starting point for the imputation of actuarial value was the 2005 National Compensation Survey (2005). Actuarial Research Corporation calculated actuarial values for the private sector plans based on the plan specifications (cost sharing and covered services) provided in this survey, and presented the distributional results by plan type, funding and employer size.

In order for these actuarial values to be relevant for plans in CY 2010, plan level detail from the 2006 through 2010 Kaiser/HRET Employer Health Benefits Surveys was used to calculate actuarial values for 2006 and 2010 as well as to explore changes in plan details and coverage parameters over time. Three main differences between the NCS data and the Kaiser/HRET data were: (a) the Kaiser/HRET surveys highlighted the transition over time away from fee-for-service (FFS) plans and their replacement by high deductible (HDED) plans, (b) the NCS analysis combined PPO and POS categories while there were separate categories in the Kaiser/HRET data, and (c) the Kaiser/HRET survey contained plans for both the public and private sectors, while the NCS data was for the private sector only.

Average actuarial values, as well as prevalence by type of plan and source of funding, have shifted over the time period from 2005 to 2010, but the shape of the AV distributions (as calculated from the NCS data) were preserved within cell. What this means is that for each combination of sector (private vs. public), plan type and funding method, the shape of the NCS actuarial value distribution was maintained while the average values reflected our best estimates for 2010. These averages were imputed onto the Auxiliary Data, as the "cell based actuarial value", and while useful at the aggregate level are not helpful for distributional analysis. The second "plan specific actuarial value" variable was imputed from the Kaiser/HRET NCS-adjusted plan records using a plan to person record-by-record match prioritized by size. It is this variable that reflects the NCS distribution within plan type.

The resulting average actuarial values (AVs) are shown in the table below:

Average Actuarial Values for Persons with Active ESI in Own Name

by Sector and Type of Plan

Sector	Total	HMO	PPO	POS	HDED
Private Sector Plans	0.883	0.929	0.894	0.887	0.808
Public Sector Plans	0.913	0.948	0.916	0.935	0.825

REVISIONS TO THE MARCH CPS AND OUR METHODOLOGY:

Earlier incarnations of this March CPS based model remain as the basis for the current Auxiliary Data. Each year, revisions were introduced in order to make sure that all imputations were based on the most recently available data. In prior years, the Survey of Income and Program Participation (SIPP) was used as a data source for imputing union coverage, however this year we have moved away from this source.[9] In addition, we have added variables on actuarial values of health insurance plans for active policyholders.

This past year, health insurance reporting on the March 2011 CPS was substantially revised by Census. These revisions have included a new imputation routine for health insurance coverage, Medicaid being assigned to foster children, the allowing of hot-decking of household dependents rather than only the nuclear family, and the correction of a coding error. The Census Bureau has re-released prior years to now be consistent with the most current ASEC data. For a full description of these changes, please see the working paper by Michel Boudreaux and Joanna Turner on the Census website[10].

The supplement weights for the March 2011 CPS file were re-released in 2012 to be consistent with the 2010 Census. Previous years (and the previous DoL Tool weights) were based on the 2000 Census. These revisions by Census to the March CPS make estimates from the current model incompatible with those from prior years. Therefore, this version should not be used to make historical comparisons with earlier data provided by EBSA.

[9] Data from the SIPP was primarily used for the union coverage imputation. As this data is now quite dated, we have worked on moving to use more current information when possible.

[10] "Modifications to the Imputation Routine for Health Insurance in the CPS ASEC: Description and Evaluation", September 2011, Revised: December 2011, *http://www.census.gov/hhes/www/hlthins/data/revhlth/SHADAC.pdf.*