



Reports of Unemployment Compensation in the American Community Survey A Data Note

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Introduction

Unemployment compensation (UC) is a key part of the social safety net. Many who lose their job can suddenly find themselves living below or near the poverty line. This is especially true in times of recession when job loss rises, and UC programs attempt to mitigate the effects. UC provides temporary partial replacement of lost earnings due to unemployment, and for some in need, this additional income makes a significant difference.

Unemployment compensation is not individually reported on the American Community Survey (ACS), an issue for data users wishing to estimate the impact of government programs on those in need. Instead, individuals are asked to report this source of income along with multiple other sources. Using regression techniques, we predict the share attributable to UC in the 2008 ACS data in three states. Our estimate falls short of administrative data reports of total benefits received by about 75 percent. While underreporting is a common problem among surveys, this estimate is considerably low compared with other surveys, like the Current Population Survey (CPS), that report UC as an individual income source.¹

This data note briefly reviews UC reporting in the ACS data and discusses a possible method of correction using the Transfer Income Model, Version 3 (TRIM3). The TRIM3 microsimulation provides an excellent platform for correcting for the underreporting of unemployment compensation since it is designed to simulate the rules of state programs and align the results to program totals. We demonstrate the effect of the UC underreporting correction on the poverty rate, the poverty gap, and the distribution of income in the ACS for three states: Georgia, Illinois, and Massachusetts. These states are the focus of a forthcoming study comparing the effect of states' safety net policies on poverty and required this UC correction to ensure that we capture the full benefits received under this program.

Inferring UC from “Other Income” and Assessing Underreporting of UC on the ACS

As noted, the ACS asks whether each adult in the household received “any other sources of income received regularly” and lists veteran’s payments, unemployment compensation, child support, and alimony as examples.² Since TRIM uses two of these income sources to help

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¹ Meyer, Mok, and Sullivan (2009) report that the average reporting rate for UC in the CPS between 1987 and 2007 was 79.2 percent. Meyer, Bruce D, Wallace K. C. Mok and James X. Sullivan, “The Under-Reporting of Transfers in Household Surveys: Its Nature and Consequences,” <http://www.nd.edu/~jsulliv4/AggregatesPaper3.13.pdf>.

² 2008 ACS Questionnaire Q46h, <http://www.census.gov/acs/www/Downloads/questionnaires/2008/Quest08.pdf>.

estimate receipt of other government benefits and their impact on poverty, it was necessary to implement a method of separating other income into three components: UC, child support, and everything else.

We used a multinomial logit procedure to predict the share of “other income” to designate as UC. To accomplish this, we first created a variable replicating the ACS “other income” variable using CPS data.³ Second, we estimated a multinomial logit to predict the likelihood that the “other income” reported was UC, child support, or remaining other income. The logit used personal characteristics, the presence of children in the family/household, a person’s earnings, and the amount of “other income” to be allocated to assess the likelihood.⁴ Third, we used the results of the multinomial logit equation to predict the share of “other income” reported on the ACS that could be assigned to UC, child support, or other income.

Table 1 illustrates the differences in reported other income between the ACS and CPS for Georgia, Illinois, and Massachusetts. In Georgia, \$4.3 billion in other income was reported on the ACS and \$6.4 billion on the CPS (48 percent more than the ACS). In Massachusetts, \$3.5 billion of other income was reported on the ACS, compared with \$4.3 billion on the CPS (24 percent more). The difference in other income reported is largest in Illinois with \$5.6 billion in the ACS and \$10.6 billion in the CPS (87 percent more).

This first stage of our imputation captured 23 to 25 percent⁵ (table 1) of the actual state UC expenditures, assigning those benefits to the persons who reported “other income” and who appeared most likely to have received UC. The share of other income that we assign as UC is low when compared with the CPS-reported UC benefits.

Correcting the ACS Data for Underreporting of UC

We used TRIM3 to correct for underreported UC benefits. The TRIM3 UC module simulates eligibility and receipt based on state-specific rules applied to the ACS microdata. The 2008 program rules were simulated for each of the three states. The UC module applied five steps to correct the ACS data for underreporting⁶:

³ We compared reported totals of “other income” on the 2008 ACS with a constructed “other income” variable on the 2009 CPS (ASEC file, with income for calendar year 2008). The CPS captured over \$197 billion in “other income” in 2008, compared with \$150 billion on the ACS.

⁴ Keith Watson, a consultant to the Urban Institute, estimated these equations. The results are available upon request.

⁵ The relatively high level of underreporting observed may be partly attributable to differences between the ACS and CPS survey designs. CPS-ASEC income refers to the calendar year, while the ACS income asks individuals to report on income in the 12 months prior to their interview. Since the 2008 ASEC includes interviews from January through December 2008, some respondents reported on their 2007 income, while others reported on some combination of 2007 and 2008 income. The Census Bureau uses the monthly Bureau of Labor and Statistics CPI-U research series to inflation adjust the 12 reference period incomes to apply to 2008. (See *A Compass for Understanding and Using American Community Survey Data: What PUMS Data Users Need to Know*, Appendix 5: “Using Dollar Denominated Data,” <http://www.census.gov/acs/www/Downloads/handbooks/ACSPUMS.pdf>.) However, since the unemployment rate increased markedly over this period—from 5.0 percent in December 2007 to 7.4 percent in December 2008—the ACS would be expected to pick up less UC than the CPS.

⁶ A more detailed description of this module is available from <http://cybele.urban.org/documentation/UnemploymentComp/main.html>.

1. Estimate categorical eligibility based on a worker's industry, work status, and sector of employment.
2. Estimate weekly benefit amount and monetary eligibility based on a worker's base period wages.
3. Assign weeks of benefit receipt based on the length of the unemployment spell and the allowable weeks of benefits.
4. Randomly select participants based on age, gender, and industry, coming as close as possible to the actual distribution of weeks of benefits by those characteristics.
5. Assign monthly benefits to participants, using the appropriate amounts for each state.

The simulation captures 78.7 percent of the UC benefits received in Georgia, 74.1 percent in Illinois, and 72.4 percent in Massachusetts (table 1). Note that because the UC module attempts to match several administrative targets (weeks compensated, total expenditures, and number of recipients), this version of the module only assigns about three-quarters of actual UC expenditures. The module comes closer to matching figures for the total number of UC recipients with 81 percent in Georgia, 105 percent in Illinois, and 100 percent in Massachusetts. The selection of participants based on age, gender, and industry helps to ensure that simulated UC recipients look like those who actually received UC in 2008.⁷

Table 1. Reported Other Income and Unemployment Compensation (2008), Comparison before and after Correction for Underreporting

	Georgia	Illinois	Massachusetts
Reported other income			
ACS (\$millions)	4,313	5,639	3,485
CPS (\$millions)	6,365	10,569	4,317
CY 2008 UC benefits			
Actual (\$millions)	1,177	2,739	2,039
Imputed from ACS "other income" (\$millions)	275	621	520
Percent of actual	23.4%	22.7%	25.5%
ACS imputed + simulated (\$millions)	927	2,029	1,477
Percent of actual	78.7%	74.1%	72.4%
Workers receiving UC			
Actual (1,000s)	311	445	257
Imputed from ACS "other income" (1,000s)	89	156	96
Percent of actual	28.6%	35.2%	37.5%
ACS imputed + simulated (1,000s)	252	466	257
Percent of actual	81.1%	104.8%	99.9%

Notes: Administrative targets taken from the U.S. Department of Labor Employment Training and Administration UI Program Statistics, <http://www.workforcesecurity.doleta.gov/unemploy/finance.asp>. The CPS data are from the 2009 CPS-ASEC, with data for income year 2008.

⁷ The simulated distribution of weeks compensated was adjusted so that age and gender were matched to within 1 percentage point of the distribution of actually reported claims and industry to within 5 percentage points.

Effect of Imputation on Poverty and Income

We estimated the poverty rate and gap before and after the underreporting correction to UC. The effect on poverty is relatively small⁸—the poverty rate drops by two-tenths of a percentage point in each state (table 2). The poverty gap decreases by \$93 million in Georgia (2.0 percent), \$116 million in Illinois (2.1 percent) and \$50 million in Massachusetts (2.1 percent). The effect on poverty is relatively small both because many low-wage workers often do not qualify for UC and because those that do qualify tend to receive low weekly benefit amounts.

Table 2. Impact of UC Correction to the Poverty Rate and Poverty Gap, 2008 ACS

	Georgia	Illinois	Massachusetts
Poverty rate			
Before correction	14.5	12.0	9.6
After correction	14.3	11.8	9.4
Poverty gap (\$millions)			
Before correction	4,620	5,452	2,364
After correction	4,527	5,336	2,315

Nonetheless, the UC simulation adds \$652 million in UC income to individuals in Georgia, \$1,408 million to individuals in Illinois, and \$957 million to individuals in Massachusetts. The distribution of UC benefits (including the amount imputed from reported other income) is concentrated more in the middle of the income distribution in each state,⁹ but individuals in both low- and higher-income families also receive UC benefits (table 3). We believe that this simulation provides a more accurate picture of income received in 2008 than direct reports from the ACS, allowing us to better estimate the effects of this important policy.

Table 3. Distribution of Imputed and Simulated UC Benefits by Percent of Poverty, 2008 ACS

Percent of poverty	Georgia		Illinois		Massachusetts	
	\$ millions	%	\$ millions	%	\$ millions	%
< 50%	19	3.3	23	2.1	19	1.3
50 < 100%	67	9.6	108	6.8	49	3.6
100 < 200%	226	25.5	332	18.1	165	12.9
200 < 300%	194	20.4	408	20.8	202	16.0
300% +	421	41.2	1,158	52.2	1,041	66.2
Total	927		2,029		1,477	

⁸ Our findings corroborate those of another independent study by Wayne Vroman, “The Great Recession, Unemployment Insurance and Poverty,” which finds that in 2008 UC benefits had only a small overall effect on the poverty rate (http://www.urban.org/UploadedPDF/412072_great_recession.pdf).

⁹ The distribution of simulated state-level ACS UC benefits by poverty status compares well with the distribution of national-level CPS UC benefits by poverty status.