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The Effects of the Changes to the Current Population Survey Annual Social and Economic Supplement on Estimates of Income

Proceedings of the 2015 Allied Social Science Association (ASSA) Research Conference

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All comparative statements in this report have undergone statistical testing, and, unless otherwise noted, all comparisons are statistically significant at the 90 percent confidence level. Any views expressed are those of the authors and not necessarily those of the U.S. Census Bureau.

Abstract

This paper presents the resulting income estimates based on changes to the Current Population Survey Annual Social and Economic Supplement (CPS ASEC) questionnaire on income estimates. The ASEC is one of the most widely used socioeconomic surveys publishing national level estimates of income. The ASEC is the official source of the US national poverty estimates. The ASEC asks each person detailed questions categorizing income into over 50 sources. As one of the nation's longest running surveys, it has been over 30 years since the last major questionnaire redesign.[1] In an effort to take better advantage of an automated environment and to update questions on retirement income and health insurance, the Census Bureau conducted a limited telephone interview field test in March 2013 of a redesigned instrument using a retired ASEC sample of 23,000 households. The results of that test were encouraging, indicating likely increases in income recipiency and amounts.[2] In 2014, the Census Bureau conducted a second field test using a split panel and taking advantage of a full production environment. This paper compares income estimates using the old and new questions from the split-panel test.

Introduction

The Annual Social and Economic Supplement to the Current Population Survey (ASEC) is one of the most widely used surveys conducted by the government; it serves as the basis of national income measurement and the source of official poverty estimates. The ASEC is conducted in February through April with most of the sample falling in March. The ASEC asks questions about income received the prior calendar year, as well as questions on health insurance coverage

[1] In 1994 the CPS ASEC paper questionnaire transitioned to a computer environment.

[2] Evaluating the 2013 CPS ASEC Income Redesign Content Test, Proceedings of the 2013 Federal Committee on Statistical Methodology (FCSM) Research Conference, November 6, 2013, Jessica L. Semega and Edward Welniak, Jr.

(DeNavas-Walt et al., 2013). This paper presents findings from the new redesigned income questionnaire portion of the ASEC.

Background

Previous research shows the ASEC suffers from misclassification of certain types of income, general underreporting of income, and historically under-reported enrollment in means-tested government programs (Meyer et al., 2009). To address these issues, the Census Bureau contracted Westat Inc. and Mathematica, Policy Research in 2011 to evaluate the CPS ASEC questionnaire and to suggest ways to address its shortcomings and improve the instrument. In April of that year, Westat Inc. issued a report entitled "Cognitive Testing of Potential Changes to the Annual Social and Economic Supplement of the Current Population Survey" which suggested potential changes to income questions to correct income errors of varying magnitudes across income types, and by particular subpopulations based on the results of conducting cognitive tests. A nation-wide (sample of 23,000 households) content test was conducted by telephone interview of a redesigned ASEC questionnaire in March of 2013 based on their suggestions. The content test also included new health insurance questions (see Medalia et al., 2013). Based on the favorable results of that initial test which showed higher income source recipiency and income aggregates (see Semega and Welniak, 2013), a second, more comprehensive test was conducted in 2014 to take advantage of a full production environment. The test included both telephone and personal visits.

The 2014 CPS ASEC utilized a probability split panel design to test the new set of income questions. There were approximately 98,000 addresses in the 2014 ASEC sample; a subsample of about 30,000 addresses (approximately 3/8 of the sample) were randomly assigned to be

eligible to receive the redesigned income questions, the remaining sample (approximately 68,000 addresses or 5/8) were eligible to receive the set of ASEC income questions that have been in use since 1994, referred to here as the traditional income questions.[3]

The objectives of the redesigned income questions were to improve data quality by addressing misreporting of income amounts and item nonresponse, and to reduce error resulting from respondent fatigue. It was also an opportunity for the ASEC to address the changing retirement income environment. While retirement income is dominated by Social Security and traditional (defined benefit plans) pensions, the aggregate holdings in newer types of retirement accounts (defined contribution plans such as tax-advantaged IRAs and 401k plans) already exceed those of traditional pension plans by a substantial margin. Retirement, pensions, and annuities are historically under-reported in the ASEC (see Czajka and Denmead 2008). In addition, one of the largest aggregate shortfalls in measured ASEC income is asset income. The redesigned ASEC clarifies questions on asset income such as interest and dividends, by targeting income received from income accounts separately from traditional assets such as savings, checking, and mutual fund accounts.

Summary of Changes

The following were components of the new ASEC instrument:

[3] Each address in sample was assigned a random number to determine if the address would receive the traditional or redesigned ASEC questionnaire. One caveat was that all month-in-sample-one addresses received the traditional ASEC. Census field representatives did not know in advance if the household they were interviewing would receive the traditional or redesigned income questions until they began the interview. All CPS ASEC interviewers were trained to conduct both sets of questions. All 2014 CPS ASEC sample received the new set of health insurance questions.

- Remove the family income screener for determining which households to ask low-income sources (means tested programs such as Temporary Assistance for Needy Families [TANF]).

- Use a dual-pass, identifying all sources of income received first and then asking amounts for the sources the respondent indicated receiving.

- Tailor the order of income questions to match those sources most likely received by respondents given certain known characteristics of the household focusing on households with a householder aged 62 and older, lower income household, and a default for all other household types.

- Use income ranges as a follow-up for "don't know" or "refused" income amounts.

- Collect the value of assets that generate income if the respondent is unsure of the income generated.

- Ask about retirement account withdrawals and distributions.

- Use a new strategy to collect property income by asking separately about income from retirement accounts and other assets.

- Change the disability questions to eliminate confusion between disability from Social Security and Supplemental Security Income (SSI).

A discussion of each of these follows.

- *Removal of the Family Income Screener*

The traditional ASEC only asks households that reported less than $75,000 in combined family income about means-tested transfer programs such as food stamps and Temporary Assistance to Needy Families (TANF). The redesigned ASEC removes this family income screener based on evidence that the ASEC instrument inappropriately screens out some households that would have been eligible for participating in one or more transfer programs.[4] The redesigned ASEC asked all households all questions regardless of family income (including those above $75,000).

[4] Tabulations of 2008 American Community Survey (ACS) data show that 12% of SNAP recipient households and 20% of public assistance income recipients would have failed the family income screen test if it had been applied to the ACS.

- *Dual-Pass*

The traditional ASEC uses an interleaf design, for example, if a respondent answered affirmative to receiving a source of income then immediately a follow-up question is asked on the amount of the income or the easiest way to report the income (i.e. weekly, monthly, annually, etc). The redesigned ASEC uses a dual-pass approach. The "first pass" or first series of questions identifies all sources of income received by members of the household. After the "first pass" identifies all sources of income received by all members of the household, the "second pass" collects the income amounts from each identified source. The series of questions on earnings are unchanged in the redesigned ASEC. They do not follow the dual-pass approach and are always the first set of questions in the ASEC asked of each person in the household. The redesigned ASEC asked the series of questions on unemployment income and worker's compensation at the household-level and follow the dual-pass approach.[5]

- *Tailored Skip Patterns*

The redesigned ASEC tailors the order of income questions to match those sources most likely received by respondents given certain known characteristics of the household focusing on households with a householder aged 62 and older, lower income household, and a default for all other household types. Using tailored skip patterns allows prioritization of more relevant questions to help reduce respondent fatigue by presenting the most likely sources of income for that household earlier in the interview. Because of the removal of the family income screener, the redesigned ASEC asks all questions regardless of household composition, just in different orders. The three prioritized orders are:

[5] Traditional ASEC asks the series of questions on unemployment compensation and worker's compensation of each person age 15 and above in the household.

1) **Low income** (family income less than $75,000): prioritizes questions on public assistance, food stamps, WIC, and public housing;

2) **Senior** (householder/spouse age 62+): prioritizes questions on disability and retirement income; and

3) **Default**: presented to households that do not qualify as low income or senior and closely reflects the traditional instrument order.

- *Income Range Brackets*

The redesigned ASEC presents new range questions anytime a respondent says they "don't know" or "refuse" to provide a dollar amount for an income source they (or someone in the household) indicated as having received.[6] The income ranges depend on the source of income. The redesigned ASEC uses high, middle, and low ranges developed and assigned based on the type of income. The objective of the income range questions is to reduce item nonresponse by allowing respondents to provide a less precise amount. The Census Bureau is currently working on developing new allocation procedures to incorporate this new income data.[7] The three levels of income range follow-up questions were:

- **<u>High-range</u>:**

    - Less than $45,000
    - Between $45,000 and $60,000
    - $60,000 or more

    If the respondent selects the <u>lowest bracket</u> (less than $45,000), the instrument presents the following ranges:

    - Less than $15,000
    - Between $15,000 and $30,000
    - $30,000 or more

[6] The traditional ASEC moves on to ask about the next source of income if a respondent says they "don't know" or "refuse" to provide an income amount.

[7] At the time of this release it was not possible to integrate the new income range data into processing. If a respondent did not know an income amount or refused to provide an amount, then an amount was assigned using the same allocation system used for the traditional ASEC data.

- **Mid-range:**

    - Less than $10,000
    - Between $10,000 and $20,000
    - $20,000 or more

  If the respondent selects the lowest bracket (less than $10,000), the instrument presents the following ranges:

    - Less than $1,000
    - Between $1,000 and $5,000
    - $5,000 or more

- **Low-range:**

    - Less than $1,000
    - Between $1,000 and $3,000
    - $3,000 or more

  If the respondent selects the lowest bracket (less than $1,000), the instrument presents the following ranges:

    - Less than $100
    - Between $100 and $500
    - $500 or more

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Income Source	Range Level
Earnings	High
State or Federal Unemployment Compensation	Mid
Social Security	Mid
Supplemental Security Income (SSI)	Mid
Disability Income	Mid
Veteran's Payments	Mid
Survivor Benefits	Mid
Pensions/Retirement/Annuities	Mid
Retirement Interest	Mid
Property Income	Mid
Child Support	Mid
Nonretirement Interest	Low
Education Assistance	Low
Regular Financial Assistance	Low
Interest earning accounts	Low
Public Assistance/ TANF	Low
Food Assistance/ SNAP	Low

- *Changes to Retirement Accounts and Asset Income*

To capture more relevant retirement income, the redesigned ASEC specifically asks if anyone in the household has a pension, and then if anyone has a retirement account (such as a 401(k), 403(b), IRA, or other account designed specifically for retirement savings). In contrast, the traditional ASEC asks one broad question on receipt of pension and retirement income. If the respondent has a retirement account, the redesigned ASEC instrument asks the respondent to identify the specific type of account. The instrument proceeds to inquire if there was a withdrawal or distribution from that retirement account.[8] For recipients over 70 years old the question text changes to add, "including distributions you may have been required to take." To

[8] The 2011 Data Analysis Report by the Urban Institute identified that the ASEC misses over 90 percent of retirement account withdrawals.

make sure the value of the withdrawal correctly counts as household income, there is a follow-up question on if the money was "rolled over" or reinvested to another account.

To better capture asset income, interest and dividend income received on retirement accounts was asked separately from non-retirement accounts in the redesigned ASEC. Traditional ASEC makes no distinction between investment income received in a retirement account and investment income received outside of a retirement account.[9] Asking about the specific types of accounts or assets could cue respondents and decrease underreporting.

Results

Income source recipiency, means, medians and aggregate income totals from the traditional ASEC (five-eighths sample) are compared to data from the redesigned ASEC (three-eights sample), both sets of data were weighted to national population controls, to evaluate the performance of the redesigned ASEC.[10] Table 1 shows the percentage change in real median household income and earnings by select characteristics. None of the characteristics examined shows a statistically significantly lower median income for the redesigned ASEC. Overall median household income based on the redesigned ASEC was $53,514 in 2013, 3.0 percent higher than median household income using the traditional ASEC ($51,939). Family household median income was 2.6 percent higher and 4.3 percent higher for married-couple households in 2013 using the redesigned ASEC compared to traditional ASEC. Among the other types of family and nonfamily households, the changes in median income were not statistically

[9] Czajka and Denmead (2008) estimate that the ASEC misses about 40 percent of aggregate interest income and about 75 percent of dividend income.

[10] The current ASEC processing system does not maximize income by source using the redesigned ASEC. In order to expedite the release of this report and the research file, the redesigned ASEC data were formatted to match the traditional ASEC data so the same processing to create fully edited variable could be done. The estimates in this report do not include any data from the income range questions as the Census Bureau is researching how to incorporate them in the allocation matrix.

significant. Non-Hispanic White household median income was 3.7 percent higher using the redesigned ASEC while Black and Asian median household income were not statistically different from the traditional ASEC. There was no statistically significant difference in Hispanic median household income. Households maintained by a householder aged 45 to 54 years and aged 65 and over, had higher median incomes using the redesigned ASEC (5.5 percent and 4.6 percent higher, respectively.) Only households in the West had higher median household income (5.3 percent higher) using the redesigned ASEC, the Northeast, Midwest, and South were not statistically different. Earnings of men and women who worked year round, full time were not statistically different between the redesigned and traditional ASEC.

Table 2 shows the number of people with income, mean dollars, and aggregates in 2013 by income source for people age 15 and older based on redesigned and traditional ASEC. Total recipiency, mean, and aggregate income was higher based on the redesigned ASEC than traditional. A stated goal of the redesigned ASEC was to increase income source reporting using the dual-path approach of identifying all sources of income before asking amounts. Table 2 shows that, with the exception of workers' compensation, all income recipiency was higher or not statistically different in the redesigned ASEC. Specifically, recipiency was higher for Social Security, Supplemental Security income, public assistance, disa bility benefits, retirement income, interest earning accounts and dividends.[11] The increased recipiency of these types of income sources resulted in lowered mean amounts, but increased aggregate income per source. Aggregate income was higher in the redesigned ASEC for all of the same sources of income that had higher recipiency except dividends.[12] One of the focuses of the redesigned ASEC was to

[11] Recipiency was statistically lower for Workers' Compensation.
[12] Aggregate income for Veterans' Benefits was statistically lower based on redesigned ASEC.

increase public assistance values by removing the family income screener, tailoring the income questions for low-income households, and using the dual path approach. Public assistance recipiency, based on the redesigned ASEC, was up 23.6 percent and aggregate income was 36.7 percent higher compared to traditional ASEC. Another goal of the redesigned ASEC was to collect more retirement account income by specifically asking if anyone in the household has a pension, and then if anyone has a retirement account (such as a 401(k), 403(b), IRA, or other account designed specifically for retirement savings) and then asking separately about income from retirement accounts and other assets. This emphasis resulted in a 419.5 percent increase in people that received income from an IRA, Keogh, and/or 401(k) using the redesigned ASEC and a 230 percent increase in aggregate income from retirement accounts. Property income was also targeted with the redesigned instrument. Aggregate interest income was up 111.7 percent using the redesigned ASEC though aggregate dividend income was 20 percent lower. This is probably a product of the redesigned questionnaire better classifying what constitutes dividend income, separate from interest earned or capital gains. Collectively, aggregate interest and dividend income was up 52.8 percent using the redesigned compared to the traditional ASEC.

Table 3 shows comparisons of inequality measures for the redesigned and traditional ASEC. In spite of the overall increase in income recipiency and aggregate income including means-tested income sources, the shares of income going to the first and second quintile were lower for the redesigned ASEC. Of note is the increase in the redesigned ASEC Atkinson measure where e=.75, indicating the increased inequality was occurring because of changes in the lower end of the income distribution. An examination of the lowest quintile of households showed that aggregate income of many income sources were, in fact, lower (see Mitchell and Renwick, 2015).

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Conclusion

The redesigned ASEC show increases in household medians, income recipiency, and aggregates. The redesigned questionnaire also seemed to improve the reporting for targeted income sources such as TANF, retirement and asset income. These improvements did not seem to be equally distributed, however, with the lower end of the income distribution showing less aggregate income for many income sources contributing to a lower overall share of aggregate income.

Future work will need to focus on how best to use income range reporting and testing a new processing system that utilizes the full detail of the redesigned questionnaire. In the meantime, based on these results, the Census Bureau plans to move forward with the redesigned ASEC and it will be used as the full production instrument in 2015.

Note: Minor corrections to the research file used for the research papers account for the differences in the estimates included in this paper and the estimates published in September 2015 in Appendix D of Income and Poverty in the United States: 2014, P60-252.

REFERENCES

Bee, Adam and Aaron Cantu. 2013. "Evaluating Respondent Burden of the CPS ASEC Content Test with Timer Data." Paper presented at the 2013 meetings of the Federal Committee on Statistical Methodology.

Brault, Matthew W. 2013. "Non-response Bias in the 2013 CPS ASEC Content Test." Paper presented at the 2013 meetings of the Federal Committee on Statistical Methodology.

Czajka, John L. and Gabrielle Denmead. 2008. "Income data for Policy Analysis: A Comparative Assessment of Eight Surveys" Mathematica Reference No.: 6302-601 [http://mathematica-mpr.com/publications/PDFs/incomedata.pdf]

DeNava-Walt, Carmen, Bernadette D. Proctor, and Jessica C. Smith. 2012. Income, Poverty, and Health Insurance Coverage in the United States: 2012. U.S. Bureau of the Census, Current Population Reports, P60-243. Washington, DC.: U.S. Government Printing Office.

Hicks, Wendy and Jeffrey Kerwin, 2011. "Cognitive Testing of Potential Changes to the Annual Social and Economic Supplement of the Current Population Survey." Unpublished Westat report to the U.S. Census Bureau. July 25, 2011.

Hornick, David. 2013. "The 2013 Annual Social Economic Supplement Health Insurance Questionnaire Test: The Sample Design." Paper presented at the 2013 meetings of the Federal Committee on Statistical Methodology.

Medalia, Carla, Amy Steinweg, Brett O'Hara, David Lee, Jessica Smith, Joanne Pascale, and Jonathan Rodean. 2013. "Health Insurance in the Current Population Survey: Redesign and Production." Paper presented at the 2013 meetings of the Federal Committee on Statistical Methodology.

Meyer, Bruce, Wallace K. C. Mok, and James X. Sullivan. 2009. "The Under-Reporting of Transfers in Household Surveys: Its Nature and Consequences." Harris School Working Paper #09.03.

Mitchell, Joshua, Renwick, Trudi, 2015, "A Comparison of Official Poverty Estimates in the Redesigned Current Population Survey Annual Social and Economic Supplement." Paper presented at the Allied Social Science Association Research Conference.

Semega, Jessica and Edward Welniak Jr. "Evaluating the 2013 CPS ASEC Income Redesign Content Test." 2013. Presented at the proceeding of the 2013 FCSM conference. U.S. Census Bureau Income Statistics working paper available online at: http://www.census.gov/hhes/www/income/publications/Evaluating the 2013 CPS ASEC Income Redesign Content Test.pdf

Table 1. Income and Earnings Summary Measures by Selected Characteristics: 2013 CPS ASEC Traditional and Redesigned Sample

(Income in 2013 dollars. Households and people as of March of the following year. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see www.census.gov/prod/techdoc/cps/cpsmar14.pdf. Standard errors calculated using replicate weights)

Characteristic	Traditional (5/8th sample)				Redesign (3/8th sample)				Percentage change in real median income (Redesign less Traditional)		
	Number (thousands)		Median income (dollars)		Number (thousands)		Median income (dollars)				
	Estimate	90 percent confidence interval[1] (+)	Estimate	90 percent confidence interval[1] (+)	Estimate	90 percent confidence interval[1] (+)	Estimate	90 percent confidence interval[1] (+)		Estimate	90 percent confidence interval[1] (+)
HOUSEHOLDS											
All households	122,952	723	51,939	455	123,931	942	53,514	1,073	*	3.0	2.09
Type of Household											
Family households	81,192	447	65,587	643	82,270	726	67,323	1,046	*	2.6	1.76
Married-couple	59,669	479	76,509	674	59,626	798	79,832	1,411	*	4.3	1.98
Female householder, no spouse present	15,193	324	35,154	832	16,158	532	35,568	1,460		1.2	4.66
Male householder, no spouse present	6,330	218	50,625	1,503	6,486	429	53,226	2,834		5.1	6.27
Nonfamily households	41,760	714	31,178	518	41,660	923	31,291	888		0.4	2.93
Female householder	22,266	412	26,425	795	21,827	600	26,267	1,045		-0.6	4.51
Male householder	19,494	506	36,876	937	19,834	711	38,458	1,740		4.3	5.32
Race[2] and Hispanic Origin of Householder											
White	97,774	605	55,257	699	98,807	756	56,861	868	*	2.9	1.82
White, not Hispanic	83,641	544	58,270	1,006	84,432	732	60,450	911	*	3.7	2.12
Black	16,108	262	34,598	1,198	16,009	355	35,031	1,532		1.3	5.55
Asian	5,759	151	67,065	2,830	5,818	215	71,834	4,475		7.1	7.61
Hispanic (any race)	15,811	210	40,963	908	16,088	354	39,721	1,972		-3.0	4.80
Age of Householder											
Under 65 years	94,223	685	58,448	958	94,862	883	60,191	895	*	3.0	2.16
15 to 24 years	6,323	254	34,311	1,808	6,652	425	33,689	2,933		-1.8	10.14
25 to 34 years	20,008	354	52,702	1,489	19,988	528	52,414	2,009		-0.5	4.67
35 to 44 years	21,046	319	64,973	1,620	21,164	441	67,096	2,038		3.3	3.85
45 to 54 years	23,809	340	67,141	1,265	23,664	472	70,802	2,230	*	5.5	3.89
55 to 64 years	23,036	297	57,538	1,662	23,395	463	60,159	2,175		4.6	4.61
65 years and older	28,729	318	35,611	722	29,069	474	37,252	1,326	*	4.6	4.26
Region											
Northeast	22,053	268	56,775	1,426	22,511	405	56,473	2,107		-0.5	4.13
Midwest	27,214	296	52,082	1,160	27,426	372	53,461	2,262		2.6	4.66
South	46,499	404	48,128	1,104	46,553	570	49,602	1,533		3.1	3.31
West	27,186	318	56,181	1,190	27,441	404	59,146	2,261	*	5.3	4.36
EARNINGS OF FULL-TIME, YEAR-ROUND WORKERS[3]											
Men with earnings	60,769	600	50,033	404	61,348	787	49,898	1,051		-0.3	2.12
Women with earnings	45,068	510	39,157	596	44,632	659	38,864	1,092		-0.8	3.08

*Statistically different from zero at the 90-percent confidence level.

[1]A 90-percent confidence interval is a measure of an estimate's variability. The larger the confidence interval in relation to the size of the estimate, the less reliable the estimate. Confidence intervals shown in this table are based on standard errors calculated using replicate weights. For more information, see "Standard Errors and Their Use" at <www.census.gov/hhes/www/p60_245sa.pdf>.

[2] Federal surveys now give respondents the option of reporting more than one race. Therefore, two basic ways of defining a race group are possible. A group such as Asian may be defined as those who reported Asian and no other race (the race-alone or single-race concept) or as those who reported Asian regardless of whether they also reported another race (the race-alone-or-in-combination concept). This table shows data using the first approach (race alone). The use of the single-race population does not imply that it is the preferred method of presenting or analyzing data. The Census Bureau uses a variety of approaches. Information on people who reported more than one race, such as White **and** American Indian and Alaska Native or Asian **and** Black or African American, is available from Census 2010 through American FactFinder. About 2.9 percent of people reported more than one race in Census 2010. Data for American Indians and Alaska Natives, Native Hawaiians and Other Pacific Islanders, and those reporting two or more races are not shown separately in this table.

[3] Revised on 9/15/2015

Source: U.S. Census Bureau, Current Population Survey, 2014 Annual Social and Economic Supplement.

Note: Minor corrections to the research file used for the research papers account for the differences in the estimates included in this paper and the estimates published in September 2015 in Appendix D of Income and Poverty in the United States: 2014, P60-252.

Table 2 - Income of Specified Type for People 15 Years and Older: 2013 CPS ASEC Traditional and Redesigned Sample

(Income in 2013 dollars. Numbers in thousands. People in households 15 Years and Older as of March of the following year. Standard errors calculated using replicate weights. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see www.census.gov/prod/techdoc/cps/cpsmar14.pdf)

Characteristic	Traditional (5/8ths sample)						Redesign (3/8ths sample)						Percentage change Number [(R - T)/ T]			Percentage change in Mean Income [(R - T)/ T]			Percentage change in Aggregate Income [(R - T)/ T]		
	Number		Mean income (dollars)		Aggregate Income		Number		Mean income (dollars)		Aggregate Income		Estimate		Standard error	Estimate		Standard error	Estimate		Standard Error
	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error									
TYPE OF INCOME																					
Total income	218,662	311	41,319	279	9,035,003,855	60,833,185	222,135	426	42,366	342	9,410,909,544	79,602,635	*	1.6	0.22	*	2.5	1.05	*	4.2	1.09
Earning	158,081	489	44,416	334	7,021,279,921	58,105,981	158,571	628	44,983	428	7,133,057,447	73,702,521		0.3	0.49		1.3	1.22		1.6	1.32
Wages and Salary	148,752	492	44,931	336	6,683,646,622	55,004,885	149,517	680	45,689	446	6,831,377,150	74,279,918		0.5	0.54		1.7	1.23		2.2	1.36
Nonfarm Self-Employment	8,702	190	35,145	1,215	305,825,120	12,033,127	8,440	295	33,751	1,388	284,846,827	15,038,927		-3.0	4.04		-4.0	5.42		-6.9	6.11
Farm Self-Employment	627	59	50,728	6,870	31,808,179	5,359,417	613	74	27,443	3,648	16,833,470	2,741,940		-2.2	13.83	*	-45.9	10.76	*	-47.1	12.34
Unemployment Compensation	6,818	165	5,841	151	39,824,910	1,361,820	6,466	238	5,740	159	37,115,175	1,774,589		-5.2	4.13		-1.7	3.94		-6.8	5.58
Workers' Compensation	1,186	60	9,224	566	10,940,279	929,899	974	80	10,403	921	10,131,640	1,203,236	*	-17.9	7.67		12.8	11.48		-7.4	12.29
Social Security	48,370	332	13,979	55	676,178,008	5,141,589	49,178	416	14,074	86	692,108,706	7,050,602	*	1.7	0.99		0.7	0.67	*	2.4	1.25
SSI (Supplemental Security)	6,053	176	7,782	105	47,103,979	1,458,922	6,669	233	7,793	152	51,977,291	1,991,673	*	10.2	5.13		0.1	2.33	*	10.3	5.49
Public Assistance	1,775	81	3,195	149	5,671,340	340,106	2,195	120	3,533	198	7,754,374	600,667	*	23.6	8.73		10.6	7.74	*	36.7	12.48
Veterans' Benefits	3,517	127	14,640	424	51,492,553	2,502,912	3,242	169	12,170	643	39,452,684	3,077,764		-7.8	5.10	*	-16.9	5.05	*	-23.4	6.57
Survivors' Benefits	3,091	114	12,727	548	39,338,466	2,260,231	3,054	170	13,976	917	42,681,140	3,472,481		-1.2	6.82		9.8	8.09		8.5	10.79
Disability Benefits	1,801	78	15,287	727	27,524,279	1,849,826	3,156	171	11,791	583	37,213,848	2,565,336	*	75.3	11.98	*	-22.9	5.33	*	35.2	12.47
Retirement Income	19,499	263	19,374	284	377,777,876	7,847,778	29,571	583	15,616	307	461,788,771	13,383,267	*	51.7	3.62	*	-19.4	2.05	*	22.2	4.40
Company or Union Pension	10,601	193	14,465	337	153,336,654	4,805,423	11,847	336	16,266	486	192,701,722	7,824,969	*	11.8	3.85	*	12.4	4.48	*	25.7	6.47
State or Local Government Pension	4,364	142	26,305	623	114,796,914	4,566,354	4,544	190	20,149	699	91,565,547	4,695,685		4.1	5.48	*	-23.4	3.10	*	-20.2	5.14
Federal Government Retirement	1,544	84	30,642	1,031	47,321,787	3,143,830	1,740	119	24,442	1,365	42,540,836	3,606,540		12.7	10.51	*	-20.2	5.30		-10.1	10.62
IRA, KEOGH, OR 401(K)	1,014	66	18,043	1,506	18,295,501	1,980,342	5,268	221	11,465	656	60,394,360	4,424,662	*	419.5	39.78	*	-36.5	6.52	*	230.1	42.11
Annuities	222	32	12,249	1,746	2,725,230	543,935	2,917	172	10,025	946	29,242,396	3,052,861	*	1211.0	209.04		-18.2	13.58	*	973.0	244.17
Interest	86,142	588	2,120	68	182,619,127	5,963,438	122,009	861	3,168	112	386,539,009	13,618,777	*	41.6	1.33	*	49.4	6.64	*	111.7	9.48
Dividends	29,920	419	4,915	188	147,050,219	6,224,523	31,859	568	3,679	219	117,219,103	7,259,604	*	6.5	2.19	*	-25.1	5.37	*	-20.3	5.80

*Statistically different from zero at the 90-percent confidence level.

Source: U.S. Census Bureau, Current Population Survey, 2014 Annual Social and Economic Supplements.

Note: Minor corrections to the research file used for the research papers account for the differences in the estimates included in this paper and the estimates published in September 2015 in Appendix D of Income and Poverty in the United States: 2014, P60-252.

Table 3.

Income Distribution Measures Using Money Income: 2013 CPS ASEC Traditional and Redesigned Sample

(For information on confidentiality protection, sampling error, nonsampling error, and definitions, see www.census.gov/prod/techdoc/cps/cpsmar14.pdf)

Measure	Traditional (5/8ths sample)		Redesign (3/8ths sample)		Percentage change [2,*]	
	Estimate	90 percent C.I. [3] (+)	Estimate	90 percent C.I. [3] (+)	Estimate	90 percent C.I. [3] (+)
Shares of Aggregate Income by Percentile						
Lowest quintile	3.2	0.05	3.1	0.08	* -4.2	3.07
Second quintile	8.4	0.10	8.2	0.15	* -2.3	1.89
Middle quintile	14.4	0.14	14.3	0.21	-0.8	1.65
Fourth quintile	23.0	0.18	23.0	0.29	0.2	1.48
Highest quintile	51.0	0.40	51.4	0.61	0.8	1.37
Top 5 percent	22.2	0.49	22.3	0.77	0.3	4.08
Summary Measures						
Gini index of income inequality	0.476	0.0041	0.482	0.0061	1.2	1.48
Mean logarithmic deviation of income	0.578	0.0130	0.608	0.0209	* 5.1	4.21
Theil	0.415	0.0111	0.427	0.0175	2.8	4.85
Atkinson:						
e=0.25	0.100	0.0022	0.103	0.0034	2.7	3.92
e=0.50	0.196	0.0035	0.202	0.0054	2.8	3.20
e=0.75	0.298	0.0046	0.307	0.0070	* 3.1	2.75

* An asterisk preceding an estimate indicates change is statistically different from zero at the 90 percent confidence level.
Z Represents or rounds to zero.

[1] Data are based on the CPS ASEC sample of 68,000 addresses. The 2014 CPS ASEC included redesigned questions for income and health insurance coverage. All of the approximately 98,000 addresses were eligible to receive the redesigned set of health insurance coverage questions. The redesigned income questions were implemented to a subsample of these 98,000 addresses using a probability split panel design. Approximately 68,000 addresses were eligible to receive a set of income questions similar to those used in the 2013 CPS ASEC and the remaining 30,000 addresses were eligible to receive the redesigned income questions. The source of the 2013 data for this table is the portion of the CPS ASEC sample which received the income questions consistent with the 2013 CPS ASEC, approximately 68,000 addresses.

[2] Calculated estimate may be different due to rounded components.

[3] A 90-percent confidence interval is a measure of an estimate's variability. The larger the confidence interval in relation to the size of the estimate, the less reliable the estimate. Confidence intervals shown in this table are based on standard errors calculated using replicate weights. For more information, see "Standard Errors and Their Use" at <www.census.gov/hhes/www/p60_245sa.pdf>

Source: U. S. Census Bureau, Current Population Survey, 2014 Annual Social and Economic Supplements.

Note: Minor corrections to the research file used for the research papers account for the differences in the estimates included in this paper and the estimates published in September 2015 in Appendix D of Income and Poverty in the United States: 2014, P60-252.