

**Comparing Income Aggregates:  
How do the CPS and ACS Match the National Income and Product Accounts, 2007-2012**

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This paper reports the results of research and analysis undertaken by U.S. Census Bureau staff. It has undergone more limited review than official publications and was released to inform interested parties of ongoing research and to encourage discussion of work in progress. Any views expressed are those of the author and not necessarily those of the U.S. Census Bureau.

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## **Abstract**

In this paper, I compare the income aggregates from the Bureau of Economic Analysis' National Income and Product Accounts to the corresponding aggregates from two U.S. Census Bureau Surveys: 1) the Current Population Survey Annual Social and Economic Supplement and 2) the American Community Survey. This can help researchers and Census staff understand how survey respondents may be under- or misreporting various types of income.

## **1 Introduction**

This paper compares income aggregates from Census survey data to administrative benchmarks from the Bureau of Economic Analysis' (BEA) National Income and Product Accounts (NIPA). This is an update of work done by Coder and Scoon-Rogers (1996) and Roemer (2000) which compared NIPA aggregates to the Current Population Survey Annual Social and Economic Supplement (CPS ASEC) and the Survey of Income and Program Participation (SIPP).

There are many reasons why survey responses may deviate from administrative data. Respondents may be reluctant to reveal their incomes in surveys, misclassify income, or over- or under-report income. There has been a considerable literature on measurement error in survey data, both theoretical and empirical. The empirical work often focuses on comparing survey data to administrative data that represents the "truth" from which any deviation in the survey is measurement error. For a survey of comparisons between survey and administrative data, see Moore, Stinson, and Welniak Jr. (2000). Since then considerable research has been done on the topic. To name just a few, Hokayem et al. (2012) study non-response bias and poverty estimates; Kim and Tamborini (2012) analyze measurement error in survey data; Celik et al. (2012) study differences in earnings volatility in survey and administrative data. Groen (2012) and Abowd and Stinson (2013) caution that comparing survey data to an administrative

benchmark ignores the fact that measurement error exists in all data sets, including administrative ones. In this context, for example, the benchmark NIPA data contains an estimate of self-employment income that includes an adjustment to the administrative tax data for misreporting. This adjustment accounts for over 40% of the self-employment income aggregate (Ledbetter 2007; Internal Revenue Service 2012). This study also relates to work comparing CPS ASEC and NIPA income at the BEA by Katz (2012) and McCully (2013).

This paper contributes to the literature by studying how the CPS ASEC and ACS survey estimates differ from the NIPA aggregates, which are based on administrative data, survey data, and imputations. This paper has three main aims. The first is to update work done by Coder and Scoon-Rogers (1996) and Roemer (2000) and therefore to facilitate comparisons between the results of these studies. In this way, changes over time in relationship between CPS ASEC and NIPA benchmarks will be apparent. The second is to understand how possible income misreporting affects aggregates in the ACS as well. Because the ACS is a newer survey, less work has been done to understand how ACS income reporting relates to administrative and other data benchmarks. A third goal is to explore some possible reasons that Census survey aggregates have changed relative to the NIPA benchmarks over time.

The rest of the paper is structured as follows. The next section discusses the data sources. The third section explains the adjustments made to facilitate comparison between the differing concepts of income measured in the Census surveys and the NIPA. In the fourth section, I discuss the results, how they differ from those in Coder and Scoon-Rogers and Roemer's previous studies, as well as explore of some possible explanations. The final section concludes.

## 2 Data Sources

### 2.1 Current Population Survey Annual Social and Economic Supplement (CPS ASEC)

The basic CPS is a household survey given to approximately 54,000 households each month that provides information on the labor force and employment in the United States. The CPS ASEC is a more comprehensive supplemental survey designed to gather information about family and household characteristics, income, and program participation, among other things. It is given to all March CPS households as well as 4,500 additional Hispanic households from the November CPS and one-quarter of the February and April CPS households. In each household, all individuals 15 and over are surveyed. In addition, to improve data on children's health insurance coverage, the March CPS sample was increased in 2002 by over 34,000 households in states with high sampling error for the uninsured. In all, each year's CPS ASEC includes approximately 100,000 households covering over 200,000 individual interviews (Roemer 2000; US Census Bureau 2013).<sup>1</sup> The CPS ASEC asks respondents about their income in the previous calendar year, so that individuals interviewed in the March 2013 supplement are asked about income from January to December in 2012. This corresponds to the time period analyzed in the NIPA aggregates. The CPS ASEC asks about income from over 50 sources. In this paper, I divide that income into 17 categories (shown in Table 1). These categories roughly correspond to income divisions reported in the NIPA tables and allow comparisons to the results in the prior studies on NIPA and Census survey data.<sup>2</sup>

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<sup>1</sup> The inclusion of the February and April CPS households in the CPS-ASEC began in 2002. The results from Coder and Scoon-Rogers and Roemer use data from 1984 and 1990-1996 and include a sample of 50,000-60,000 households.

<sup>2</sup> Data are subject to error arising from a variety of sources. For further information, see <http://www.census.gov/prod/techdoc/cps/cpsmar13.pdf>.

## 2.2 American Community Survey (ACS)

The ACS is a large-scale survey, which recently replaced the long form questionnaire from the decennial census. It was fully implemented in 2005 with an annual sample size of nearly 3 million households. The sample was increased in June 2011 so that in 2012 approximately 3.5 million households were surveyed. The ACS is conducted on a rolling basis and 1/12 of the annual sample is surveyed each month.<sup>3</sup> Because the ACS survey requests less detailed information about income sources than the CPS ASEC, ACS income results are divided into eight categories. Table 2 shows the income categories from the ACS and their relationship to the 17 CPS ASEC aggregates in Table 1.<sup>4</sup> Another difference between the ACS and the CPS ASEC is that the ACS asks about income during the previous 12 months, not the previous calendar year. For example, ACS respondents surveyed on March 21, 2013 are asked to categorize their income from March 21, 2012 to March 21, 2013 not January 1 to December 31, 2012 as for all 2013 CPS ASEC respondents.<sup>5</sup> If ACS respondents accurately answer according to the specified timeframe, for a given year's ACS, an average of only six months of income would have been earned during the same calendar year with the other six months earned in the previous calendar year.<sup>6</sup> For simplicity, in this paper I treat all income responses for a given year's ACS as having been earned in that year. However, in the results I discuss how this

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<sup>3</sup> Prior to 2011, ACS questionnaires were mailed to 242,000 households per month (3 million annually). In June 2011, that increased to 295,000 month (3.5 million households in 2012). The census ACS website has more information on the number of households selected for the survey and the number of respondents (US Census Bureau 2012b).

<sup>4</sup> The correspondence between ACS and CPS-ASEC categories may not be perfect. For example, the ACS asks respondents about retirement income and other income. It is possible for example that some respondents classify worker's compensation payments, which is a separate income category in the CPS-ASEC, as retirement income and other respondents classify it as other income.

<sup>5</sup> The exact wording in the ACS for the income section is "give your best estimate of the TOTAL AMOUNT during the PAST 12 MONTHS. (NOTE: The 'past 12 months' is the period from today's date one year ago up through today)."

<sup>6</sup> Each individual's income is inflation adjusted by the CPIU-RS to a single reference period of January through December of the interview year based on the month the individual is surveyed (US Census Bureau 2008).

assumption may have impacted the ACS aggregates relative to the corresponding CPS ASEC aggregates.

While for the CPS ASEC I subdivide income into four categories (earning, property income, transfers, and pensions), the broader categories in the ACS only permit me to divide income into three categories by combining the transfers and pensions categories. This is because some transfer and pension income falls under into “other” income in the ACS.

### **2.3 National Income and Product Accounts (NIPA)**

The NIPA are a series of tables produced by the BEA to summarize economic activity in the United States in a given year. The NIPA tables include aggregates such as gross domestic product and personal income. The tables provide information about the size of the output of the U.S. economy as well as its composition and use. The tables track the income and expenditures of the business, household, and government sectors of the economy.

However, the concept of personal income measured in the NIPA differs from the income concept in Census surveys like the ACS and CPS ASEC. Census surveys measure “money income,” which is the cash regularly available to households. The NIPA tables measure “personal income,” which is the aggregate value of compensation including cash and non-cash benefits. For example, wages in the NIPA include in-kind benefits such as food and lodging provided to workers whereas CPS ASEC and ACS wages do not. I discuss the differences and adjustments needed to harmonize the personal and money income measures in these data sources in more detail in section 3.

The BEA uses a variety of data sources for the NIPA income aggregates, including survey data (especially economic censuses of businesses, establishments, and regional and local governments) and administrative data, such as Internal Revenue Service tax returns,

unemployment insurance program records, Social Security Administration data, etc. While the CPS is one source of data for monthly and quarterly NIPA estimates, it is generally used to extrapolate from earlier NIPA data points until the tables are revised when additional information is available from the economic censuses and administrative sources.<sup>7</sup> Because the BEA estimates of personal income come in large part from administrative data sources, I consider these estimates the benchmark for comparison of CPS ASEC and ACS income estimates.

### **3 Data Adjustments**

Before I can compare the income aggregates from the CPS ASEC and ACS to the NIPA, I must make a number of adjustments. First, the CPS ASEC and ACS sampling universes do not include all households and institutions that are in the household sector in the NIPA. For example, the NIPA household sector includes nonprofit institutions serving households. These institutions are not included in the Census surveys. Second, the concept of money income as measured by the CPS ASEC and ACS is not the same as personal income in the NIPA. As a result, the NIPA personal income aggregates must be adjusted to make them comparable to Census money income.

#### **3.1 Sample Universe Differences**

There are a number of differences between the sample universe in the CPS ASEC and the NIPA and between the ACS and the NIPA. Each subsection below discusses an adjustment made to the NIPA to account for the sampling differences between the NIPA and one or both of the Census surveys. For simplicity, I follow Roemer in assuming a steady state of movements

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<sup>7</sup> For more information about the NIPA and the data sources, see the NIPA handbook (Bureau of Economic Analysis 2012).

into and out of survey eligibility. This assumption implies that the same number of people with the same incomes transition into and out of the sampling frame (for example, by leaving and entering prisons) so that no adjustments are necessary. The one exception to this is for decedents, who once dead cannot return to answer the CPS or ACS. It is likely that any bias resulting from violations of this assumption will be very small as a share of any income aggregate.

### **3.1.1 Nonprofit Institutions and Fiduciaries (CPS ASEC and ACS)**

The household sector in the NIPA includes households and nonprofit institutions that primarily serve households, private non-insured welfare funds, and private trust funds. However, only households are sampled as a part of the CPS or ACS. Property income earned by other institutions must therefore be subtracted from the NIPA personal income aggregates to reflect the absence of this income in the Census surveys. In addition, income received or retained by fiduciaries acting on behalf of households would likely not be reported in Census survey responses and is subtracted from the NIPA aggregates where appropriate.

### **3.1.2 Decedents (CPS ASEC and ACS)**

The NIPA income estimates capture all income earned in a given year. Since they depend on administrative not survey data, this includes individuals who earned income in the United States for any portion of the year. However, survey data only includes those individuals who earned money during the year *and* are still available at the time of the survey. The income of individuals who die before the interview date will therefore not be included in the CPS ASEC or ACS but will be in the NIPA.

To adjust for this, I estimate the income of decedents using a simple model. I assume that the probability of death during the year is based only on an individual's age, race, and

gender and is not conditional on any of the income categories. While this assumption is not likely to hold in practice,<sup>8</sup> it gives a rough estimate of the aggregate income not included in the CPS ASEC and ACS due to deaths. I use the most recently available U.S. Department of Health and Human Services Life Tables (Arias 2012) which contain survival probability by age, race, and gender as of 2008. I calculated a decedent weight for each person as the share of income lost due to death of similar individuals. Based on their monthly survival probability, I assume a “share” of each individual died each month after earning income for the year of up to the midpoint of the month in which they died. Using these individual decedent shares and inverse probability weights of the annual survival probability, I calculated the aggregate decedent adjustment in each income category. The CPS ASEC requires an additional adjustment because the interview occurs several months after the survey’s income year (in March for most respondents). I calculate this additional adjustment using the probability of death between January 1 and an average interview date of mid-March. The total decedent adjustment is then subtracted from the NIPA aggregate for each income category.

### **3.1.3 Institutionalized (CPS ASEC)**

The CPS surveys only the non-institutional population and therefore excludes individuals whose income is present in the NIPA who live in prisons, long-term care facilities, nursing homes, etc. This also includes employees who reside in group quarters on the grounds of institutions. To adjust the NIPA sample universe to match the CPS ASEC, I use the income aggregates for the institutional and non-institutional populations each year from the ACS. Because income in the ACS is broken down into fewer categories than in the CPS ASEC (see

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<sup>8</sup> For example, after holding race, gender, and age fixed, individuals who are ill may earn lower wages and be more likely to die than healthy individuals. Also, individuals who receive certain transfers such as unemployment or worker’s compensation may also be more likely to die than others.

Table 2), where multiple CPS ASEC categories map to a single ACS category, I use the ratio of incomes in the broader ACS category for each of the CPS ASEC subcategories to calculate the institutional income adjustment. When there exists a one-to-one mapping, I use the aggregate income for the institutional population as the benchmark adjustment.

### **3.1.4 Military on Post in the United States without Families (CPS ASEC)**

The CPS surveys households with active duty military on post only if they reside with their families. The same adjustment procedure as for the institutionalized population is used in this case. Using the ACS, I define the excluded military individuals as those that live in military group quarters with ten or more total residents and adjust the NIPA benchmarks accordingly.

### **3.1.5 Overseas (CPS ASEC and ACS)**

The CPS ASEC and ACS obtain proxy interviews for households with members who are temporarily abroad, but neither survey includes individuals living overseas that do not have a regular residence in the United States. However, some income in the NIPA tables is earned by non-U.S. residents. While the NIPA explicitly exclude transfers made as a part of federal government programs to overseas residents (Social Security, Supplemental Security Income, employee pensions, etc.) which therefore require no overseas adjustment, the BEA does not have the data necessary to do so for state and local programs. As did Roemer, I assume that state and local transfer payments (such as unemployment compensation) to overseas residents are approximately zero. In order to account for the local and state government pensions earned by individuals living overseas, I assume that the ratio of these payments is the same as the equivalent ratio for Social Security payments. For each year, to calculate this ratio I use data from the Annual Statistical Supplements to the Social Security Bulletin (Social Security

Administration 2009; 2010; 2011; 2012; 2013). The bulletin includes the total amount of Social Security benefits paid overseas as well as by category: retirement, survivors, and disability.

The NIPA tables also include wage and property income (government retirement investment plans) earned by federal workers stationed abroad. The Regional Quarterly Reports in the BEA's Survey of Current Business (Lenze 2010; Lenze 2012) contain these values, which I subtract from the NIPA as a part of the benchmarking process. For the CPS ASEC, the property income earned by federal workers overseas is distributed proportionally between the three property income categories, as it is not available for each category separately.

### **3.2 Personal and Money Income**

There are many definitions of income in the literature. These definitions differ along a number of possible dimensions. For example, should income include only sources that are recurrent or should unexpected or one-time sources of income also be counted? Should income only include sources that directly affect current well-being or should it include sources of future well-being such as pensions, employee contributions to retirement plans, etc. that may indirectly affect current well-being? The Census money income approach includes only recurrent sources of income and only those that directly affect current well-being. The BEA personal income approach includes both recurrent and one-time sources and the value of resource flows that affect future well-being.<sup>9</sup>

Personal income in the NIPA is income and compensation received by individuals from participation in production. Personal income includes wage and salary disbursements, employer contributions to employee pension and insurance funds, proprietors' income, property income

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<sup>9</sup> See Ruser, Pilot, and Nelson (2004) for a more thorough discussion of personal and money income.

(personal interest, dividend and rental income), and transfer payments to individuals (minus individual contributions to social insurance).

CPS ASEC and ACS money income is defined as the total pre-tax income earned by individuals, excluding certain lump sum payments and capital gains. It is intended to capture the regularly-received income that people can spend on their current well-being. It includes income received as wages and salaries, self-employment income, property income (dividends, interest and rent), government transfer payments (social security, unemployment and worker's compensation, public assistance), retirement income (private and government), interpersonal transfers (alimony, child support, etc.), and other recurrent income.

Money income does not include a number of types of compensation or transfers that are included in BEA personal income. These items include employer contributions to retirement or pension plans, non-earnings lump sum payments,<sup>10</sup> in-kind income and transfer payments such as employee-provided food, Medicare, Medicaid, and food stamps, and the imputed income value of compensation or services such as the rental value of owner-occupied housing. Money income does include various items not in personal income, including interpersonal transfers such as child support and alimony. Neither income concept includes income earned from the sale of assets or capital gains.

### **3.3 Adjustments by Income Category**

In the rest of this section, I describe the primary adjustments made to harmonize the two income concepts. This includes adjustments to convert NIPA personal income into a comparable money income benchmark. Adjustments are also made so that the NIPA income concepts better match the questions and likely interpretations of respondents to Census surveys. For example,

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<sup>10</sup> Monetary earnings bonuses that are lump sum are included in money income as wages and salary.

when conducting surveys on money income, there is some uncertainty as to how individuals classify income. An individual may fail to report income from a source not directly asked about or may fail to classify correctly income such as interest and dividends paid on retirement accounts or interest on US savings bonds. In this report, for comparability I follow the informed assumptions made by Roemer about the specific adjustments made to the NIPA benchmarks. All of the adjustments are delineated in Table 3 (personal to money income), Table 4 (CPS ASEC-specific adjustments), and Table 5 (ACS-specific adjustments) so readers can evaluate the impact of these assumptions and calculate alternative benchmarks as they see fit.

### **3.3.1 Earnings**

Earnings include wages and salaries and self-employment income. The NIPA wages and salary earnings include in-kind payment such as food and lodging that must be subtracted to match CPS ASEC and ACS money income.

The CPS ASEC data on self-employment income is based on net business profit. This does not include items in the NIPA, such as inventory valuation adjustment, capital consumption adjustment, income paid to fiduciaries, the gain to those who default on loans, the value of labor in home construction or improvement, income to utility cooperatives (such as telephone and electrical cooperatives). These items must be removed from the NIPA self-employment income benchmark. In the earlier report, Roemer used data provided by the BEA from NIPA reconciliation tables used to compare NIPA results to IRS aggregate gross income calculations. Unfortunately, those tables are no longer constructed as part of the NIPA process. As a result, the income paid to fiduciaries is no longer available from the BEA. I estimate these values by multiplying the average ratio of income to fiduciaries in each categories from 1990-1996 by the NIPA income aggregate in each year analyzed.

NIPA farm self-employment income also includes categories for the value of non-monetary aspects of agricultural businesses, such as the value of food produced and consumed on farms, the rental value of farm dwellings, and the change in value of farm inventories. NIPA also includes a valuation adjustment for Commodity Credit Corporation loans to reflect the implicit subsidy in their terms. Each of these items must be subtracted from farm self-employment income in the NIPA as they are not included in the CPS ASEC or ACS. In addition, CPS ASEC and ACS respondents are likely to include patronage dividends paid out in cash from farm cooperatives.<sup>11</sup> Because this income is not included in farm self-employment income in the NIPA, it is added to the benchmark.

### **3.3.2 Property Income**

Property income includes interest, dividend, and rent and royalty income. There are a number of differences between NIPA property income and Census survey property income. First, the NIPA include the imputed interest value of financial services, such as the value of free checking accounts and interest on life insurance. The implicit interest value of these services is not included in money income. NIPA also includes the value of unredeemed interest on U.S. savings bonds, which by virtue of being unredeemed is not likely to be included in the CPS or ACS survey results. As this data was calculated as a part of the aforementioned discontinued reconciliation tables, it is no longer available from the BEA. In order to estimate the value of unredeemed interest on savings bonds, I calculate the value of unredeemed bonds as a share of the value of all outstanding bonds. I then multiply this share by the total bond interest paid by the federal government to get the estimate of unredeemed interest payments.<sup>12</sup>

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<sup>11</sup> However, farm cooperative dividends paid out in reduced prices are unlikely to be included as income.

<sup>12</sup> The unredeemed bond data is available from the TreasuryDirect website at <http://www.treasurydirect.gov/>.

The NIPA also contains interest on some types of retirement plans (IRA and Keogh), and tax-exempt interest in their calculation of interest income. For comparability, I follow Roemer in excluding these sources of income from the CPS ASEC and ACS benchmark. This was done because by focusing on regularly-received cash income, survey respondents are unlikely to report much interest on tax-exempt or tax-deferred retirement accounts. Again as the data is no longer available from the BEA, I estimated this by using data on the total value of IRA deposits in interest bearing assets such as money market funds and bond funds. Using asset data from the 2012 Statistical Abstract (US Census Bureau 2012a), interest rate data from the Federal Reserve, and fund fee data from the Investment Company Institute (ICI), a trade association of investment and mutual fund companies, I multiplied the value of IRA assets by the relevant interest rate minus fees to get the estimate of IRA interest earned.<sup>13</sup>

The CPS ASEC questionnaire explicitly includes earnings from non-money-market mutual funds as dividends. However, mutual funds include assets that yield interest (bonds) and dividends (stocks), which are reported separately in their respective categories in the NIPA. Therefore, I follow Roemer in adjusting the NIPA by including the interest earned by mutual funds in the dividend category in the CPS ASEC, as respondents likely would have reported it. This adjustment was made as with the IRA interest earned using 2012 Statistical Abstract data on mutual fund assets. For the ACS, no adjustment is necessary because interest and dividends are aggregated in the property income category.

For comparability, I also follow Roemer in excluding S corporation earnings (small business corporations) from dividends. He did so on the grounds that while the income is technically a dividend, it is not likely to be treated as such by survey respondents. However, he

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<sup>13</sup> I used the following rates for a) money market funds: 90 day financial commercial paper rate and b) bond funds: 5-year T-bill.

also does not add this income into self-employment income, citing the same low probability of inclusion in this category as well. The data used for this adjustment comes from the IRS Statistics of Income Tax Stats reports (Internal Revenue Service 2013).

For rent and royalty income, the NIPA includes the imputed rental value of owner-occupied housing. However, the CPS ASEC and ACS focus on money income available to households and therefore do not include the foregone rent that owners do not pay for living in their own houses. NIPA also adjusts rental income for capital consumption, which the Census surveys do not.

### **3.3.3 Transfers**

The benchmark adjustments to transfers are much simpler than for earnings and property income. For each transfer, lump-sum payments must be excluded, as they are not recurrent income and therefore should not be included in Census surveys. The Social Security lump-sum death benefit data is available in the 2012 Annual Statistical Supplement to the Social Security Bulletin (Social Security Administration 2013). Railroad retirement lump-sum benefits include death benefit payments and residual payments and are available in the Financial, Actuarial & Statistical Annual Railroad Retirement Act & Railroad Unemployment Insurance Act Data (United States Railroad Retirement Board 2013). Workers compensation lump-sum benefit data is available from the National Academy of Social Insurance Workers' Compensation: Benefits, Coverage, and Costs report (Sengupta, Baldwin, and Reno 2013).<sup>14</sup> Lump-sum adjustments to veteran's benefits come from the U.S. Department of Veterans Affairs' Annual Benefit Report (US Department of Veterans Affairs 2012). Black lung payments are not included in the

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<sup>14</sup> The worker's compensation lump-sum payments primarily includes payments for medical care. However, because states generally report on lump-sum payments and medical payments as one category, I have included them under the broader category of noncash and lump-sum payments.

worker's compensation aggregate in the NIPA tables, but are included in the worker's compensation category in the two Census surveys and must therefore be added to the benchmark.

### **3.3.4 Pension**

As with some transfers, lump-sum payments must also be removed from government pension payments. Federal retirement lump-sum payment data was provided upon request by the U.S. Office of Personnel Management (OPM). The lump-sum payment adjustment for state and local government pensions was calculated based on the ratio of lump-sum to total payments in governments that paid positive lump sums in the Census Bureau's Annual Survey of Public Pensions. For private pensions, I follow Roemer in including only payments from defined-benefit pension plans.

## **4 Results**

In this section, I discuss the results of the comparison between the Census surveys and the NIPA benchmarks. I focus especially on how the relationship between income aggregates from different surveys have changed over time, whether during the period analyzed in this report or between the earlier reports and this one. Table 6 shows the complete income aggregates for the Census surveys, Table 7 shows the ratio of Census survey income to NIPA income for each category, and Table 8 summarizes the adjusted benchmarks from the NIPA. Table 7 includes results from the CPS ASEC and ACS from 2007-2012 as well as the CPS ASEC results from the previous work by Roemer and Coder and Scoon-Rogers from 1984 and 1990-1996.

### **4.1 Earnings**

The aggregate CPS ASEC wages and salary income remained relatively stable throughout the period analyzed at between 96.2-99.0% of the adjusted NIPA benchmark. Although this is generally in tandem with the results from the previous work, it is below the ratio

Roemer found from 1993-1996. He found that after a survey change in 1994 which increased the upper limit on reported income and moved to computerized questionnaires, the CPS ASEC wage and salary aggregate was closer to or actually exceeded the NIPA aggregate (income years 1993-1996). It is not clear why, but from 2007-2012, the CPS to NIPA comparison is more in line with the results from 1984 and 1990-1992. Nevertheless, the aggregate wage and salary estimates from the CPS ASEC in recent years have been consistently between 1-3% below the appropriate NIPA benchmark.

The wage and salary aggregates from the ACS are further below the NIPA and fluctuate more than the comparable CPS ASEC estimates. This could be for a number of reasons. First, I have made a strong assumption to simplify this analysis by assigning all respondent income to the ACS survey year, even if a large portion was earned in the previous year. However, the unemployment rate increased rapidly during 2008 and 2009.<sup>15</sup> Therefore, ACS respondents early in the year reporting income from the previous 12 months (or even the previous calendar year if using tax information to answer the survey) did so from a lower unemployment/higher income period, which I have assigned to the later higher unemployment/lower income period. In this way, I may be overestimating wages and salary in both years, thus decreasing the gap between the ACS and the NIPA artificially. In more stable years for employment and income, the ACS results in a larger underreporting of wages and salary than the CPS ASEC. Second, while the CPS reporting period and survey dates are scheduled to allow respondents to consult their tax information when answering surveys, the ACS does neither. Therefore, ACS respondents may be more likely to provide inaccurate estimates of their income than CPS ASEC respondents. For

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<sup>15</sup> According to the Bureau of Labor Statistics, in 2008 the unemployment rate increased from 5.0% in January to 7.3% in December, and in 2009 it increased from 7.8% in January to 9.9% in December. In none of the other years analyzed did it change by more than 0.6%.

example, an ACS respondent may multiply their recent take-home pay by the number of pay periods worked to arrive at an estimate of wages, and this estimate would underestimate their pre-tax wage earnings. The CPS ASEC respondent on the other hand may have consulted their tax return, which contains the pre-tax earnings.

Both the CPS ASEC and ACS respondents severely underreport self-employment income. Total self-employment income (farm plus non-farm) in the CPS ASEC declined from 44.0% of the benchmark in 2007 to 31.7% in 2012. This decline holds over time in the ACS as well, from 50.5% to 33.8% between 2007 and 2012. Between 2007 and 2012 this divergence occurred because the current dollar value of self-employment income declined by 6.8% in the CPS ASEC and 13.4% in the ACS while at the same time increasing by 29% in the NIPA benchmark.

This appears to be a continuation of the trend observed by Roemer, where self-employment income declined from 68.5% of the benchmark in 1990 to 52.6% in 1996. Roemer also found this divergence for the Survey of Income and Program Participation (SIPP) measures of self-employment income and the NIPA. Roemer posited that the NIPA might be overstating self-employment income due to the use of a misreporting adjustment factor in the NIPA, which was unchanged over the entire period.

This adjustment in the NIPA is included to account for the misreporting of self-employment income on IRS tax returns. The adjustment is based on IRS estimates of income underreporting using data from random audits (Internal Revenue Service 2012). Table 7 includes the ratio of Census survey self-employment income to the NIPA after removing the misreporting adjustment. In 2007, over 91% of gap between the CPS ASEC and NIPA benchmark (51.2% of a gap of 56.0%) is explained by the misreporting adjustment. However,

by 2012, only 40% of the gap can be explained by the misreporting adjustment. The ACS includes more self-employment income than the NIPA benchmark minus the misreporting adjustment in 2007. However, by 2012, the ACS is only 63.3% of the NIPA without the adjustment.

The IRS has updated their misreporting adjustment based on random audits multiple times between 1990 and 2012. The continuation of the declining trend of CPS ASEC self-employment income relative to the NIPA benchmark over a more than 20-year period suggests that there is a more fundamental change in how self-employment income is earned and/or reported that is responsible for the decline.

#### **4.2 Property Income**

Property income is also underreported in Census surveys. The CPS ASEC interest income fluctuates from as low as 53.7% of the benchmark in 2008 to 74.9% in 2010. For dividends the fluctuations are even more extreme, going from as low as 27.2% in 2008 to 101.6% in 2010. Income from rent and royalties is also only 25.1% to 29.9% of the benchmark in the CPS ASEC. The results from the ACS are aggregated into one category and generally capture a higher share (average of 55.6%) of the benchmark than the aggregate from the CPS ASEC (average of 49.7%). In large part, the wide ranges observed are a result of the large swings in property income in the NIPA tables during the recession, which are not matched in magnitude in the Census surveys.

As compared to the periods analyzed by Roemer and Coder and Scoon-Rogers, there is no clear change in the share of interest and dividend income captured relative to the NIPA tables. However, the share of rent and royalty income has declined considerably. Again, the start of this

decline was visible in the earlier reports as 95.4% of rent and royalty income was captured by the CPS ASEC in 1984 but only 58.6% in 1996.

### **4.3 Transfers (CPS ASEC)**

The share of transfer income captured by Census survey aggregates differs considerably depending on the category. The CPS ASEC generally includes about 90% of the Social Security income in the NIPA, while the corresponding figure for the ACS is around 80%. CPS ASEC Supplemental Security Income (SSI) is 81-92% of the benchmark. In the ACS, SSI income fluctuates from 83% to 123% of the benchmark. It is not clear why, but it is possible that some individuals are misreporting Social Security income as SSI income in the ACS. Since SSI is a much smaller program than Social Security, this could be causing large fluctuations in the SSI aggregate. The CPS ASEC Social Security and SSI numbers generally match those from the previous reports.

Both the CPS ASEC and ACS aggregates for family assistance and other cash welfare are below 35% of the NIPA benchmark. This is a large decline from the earlier reports where family assistance and other cash welfare was never below 67% of the benchmark.<sup>16</sup> In the NIPA, the current dollar value of the two welfare categories has nearly doubled since 1996. However, the aggregate in the CPS ASEC has declined by half over the same period. The ACS values for these categories are not statistically different from the CPS ASEC aggregates.

CPS ASEC aggregates for unemployment compensation and veteran's payments are generally between 65% and 80% of the NIPA benchmarks with relatively large fluctuations. This matches the results from previous studies. The worker's compensation in the CPS ASEC is also far below the NIPA benchmark, at 23-29%.

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<sup>16</sup> One possibility is that non-cash assistance is now a larger share of family assistance than prior to welfare reform and therefore the CPS ASEC and ACS measures of cash assistance would be a smaller share of the NIPA aggregate.

While the CPS ASEC imperfectly captures some sources of transfer income when compared to the NIPA benchmarks, it is important to highlight that when aggregated, the CPS ASEC contains about 80% of transfer income in each survey year. This is because the transfer income categories the CPS ASEC best captures in aggregate are also the largest sources of transfer income, Social Security, SSI, unemployment compensation, and veteran's payments. However, in 1984, and 1990-1996, the CPS ASEC covered 83.6% to 89.5% of transfer income, so the CPS ASEC no longer captures as large a share of transfer income as it did in the previous period.

#### **4.4 Pensions (CPS ASEC)**

The CPS ASEC aggregate for private pensions is over 92% of the benchmark from 2007-2012, which is not statistically different from the results from 1990-1996. This is much higher than the share of any of the public pensions relative to the benchmark. For federal employee pensions, the range is 63.9-72.7%; for military retirement, it is 53.0-61.0%; and for state and local pensions, it is 50.3-56.8%. These figures are all below the average values reported by Roemer from 1990-1996. However, the decline in CPS ASEC coverage of military retirement and state and local pensions relative to the benchmark was already apparent in the earlier data. For military retirement, in 1990 the CPS ASEC captured 85.6% of the benchmark, but by 1996 the figure was only 58.2% with a declining trend in the intervening years. For state and local government pensions, the data showed a steady decline from 78.7% of the benchmark in 1990 to 57.3% in 1996. In neither of these cases is the CPS ASEC share of the benchmark in 1996 very different from the maximum achieved between 2007 and 2012.

#### **4.5 Transfers and Pensions (ACS)**

I have already briefly discussed the ACS benchmarks that map directly into income categories in the CPS ASEC, including Social Security, SSI, family assistance and other cash welfare. The ACS includes a category for retirement income, which I compare to the aggregate NIPA benchmarks for private defined-benefit pension income, federal pensions, military retirement, and state and local government pensions. The ACS retirement income aggregate is 89.6-93.0% of the NIPA benchmark. This is greater than the CPS ASEC pension aggregate, which is approximately 70% of the NIPA benchmark. It is not clear why the ACS captures a higher percentage of the benchmark income, but it is perhaps due to the fact that individuals are more likely to report lump-sum retirement benefits (such as lump-sum transfers from defined contribution plans) in their answer to the more general ACS retirement question than the more specific CPS ASEC ones.

The ACS also includes a category for other income that likely captures some retirement and government transfer income as well as private interpersonal transfers (alimony, child support, etc. that are excluded from the NIPA). Therefore, I report the ACS income relative to the NIPA benchmark with and without the other income category and relevant NIPA items that may be reported there. With other income included, the ACS transfer and pension income is 84.7 to 88.2% of the benchmark. Without other income, the ACS aggregate ranges from 82.0 to 85.7% of the benchmark.

#### **4.6 Total Income**

Despite changes in the relationship between Census survey income and NIPA benchmark aggregates, Census surveys captured a relatively stable amount of total income over the period analyzed. Total income in the CPS ASEC varied from 83.0% to 86.3% of the NIPA total

benchmark. The ACS totals are between 84.2% and 87.5% (or 83.8% and 87.7% excluding other income), which are not statistically different from the CPS ASEC. This is because both the CPS ASEC and ACS capture a large share of wage and salary income, which comprises about two thirds of total NIPA income in each year.

## **5 Conclusion**

Several important conclusions can be drawn from this analysis. First, aggregate CPS ASEC wage and salary income continues to be within about 4% of the NIPA benchmark. The ACS wage and salary aggregates is less accurate, possibly because the CPS ASEC survey takes place during tax filing season or because the reporting period in the ACS does not match the calendar year as in the NIPA and CPS ASEC.

Second, several income aggregates in the Census surveys declined over the period analyzed or have declined considerably since the 1990-1996 analysis. These include self-employment income, rent and royalties, veteran's payments, and family assistance and other cash welfare. For the two categories experiencing the largest change, CPS ASEC self-employment income relative to the NIPA aggregate has declined from 68.5% in 1990 to 31.7% in 2012, and family assistance and other cash welfare declined from approximately 78.4% of the NIPA aggregate in 1984 and 74.4% in 1990 to 17.1% in 2012.

Third, comparing the CPS ASEC and ACS shows that the two surveys generally capture larger shares of the NIPA aggregate in the same income categories, including wages and salary, social security, SSI, and pension and retirement income. The ACS captures a slightly smaller share of earnings relative to the NIPA than the CPS ASEC. Both surveys also do not capture a large share of self-employment earnings and family assistance and other cash welfare.

Otherwise, many of the categories of income where the CPS ASEC is well below the NIPA

benchmark (such as worker's compensation, railroad retirement, federal, military, and state and local pensions) are not asked for separately in the ACS. The CPS ASEC appears to capture a slightly greater percentage of the NIPA benchmark for transfer and pension income than the ACS<sup>17</sup>. However, the ACS captures a larger share of the benchmark property income than the CPS ASEC. Research using ACS household records linked to administrative data could help shed more light on why the CPS ASEC and ACS aggregates differ relative to the NIPA benchmarks.

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<sup>17</sup> The difference is statistically significant in all years but 2007.

## Tables

**Table 1: CPS Variables and Income Aggregates for NIPA Comparisons**

<b>Income Aggregate</b>	<b>CPS Variable</b>	<b>Condition Variable</b>	<b>Condition</b>
<b>Earnings</b>			
Wages and Salary	WS_VAL		
	ERN_VAL	ERN_SRCE	1: Wage and Salary
Self Employment			
Non-Farm Self Employment	ERN_VAL	ERN_SRCE	2: Self Employment
	SE_VAL		
Farm Self Employment	ERN_VAL	ERN_SRCE	3: Farm Self Employment
	FRM_VAL		
<b>Property Income</b>			
Interest	INT_VAL		
Dividends	DIV_VAL		
Rent and Royalties	RNT_VAL		
Estates and Trusts (included in Rent and Royalties)			
Survivor Income	SUR_VAL	SUR_SC	8: Regular payments from estates or trusts
<b>Transfers</b>			
Social Security	SS_VAL		
Railroad Retirement			
Survivor Income	SUR_VAL	SUR_SC	5: Railroad retirement survivor pension
Disability Income	DIS_VAL	DIS_SC	6: Railroad retirement disability
Retirement Income	RET_VAL	RET_SC	5: Railroad retirement
Supplemental Security Income	SSI_VAL		
Family Assistance and Other Cash Welfare	PAW_VAL		
Unemployment Compensation	UC_VAL		
Worker's Compensation	WC_VAL		
	DIS_VAL	DIS_SC	1: Worker's compensation disability 8: Black lung miner's disability
	SUR_VAL	SUR_SC	6: Worker's compensation survivor benefits 7: Black lung survivor benefits

<b>Income Aggregate</b>	<b>CPS Variable</b>	<b>Condition Variable</b>	<b>Condition</b>
<b>Pensions</b>			
Veteran's Payments	VET_VAL		
Private Pensions	SUR_VAL	SUR_SC	1: Company or union survivor pension 10: Other or don't know
	RET_VAL	RET_SC	1: Company or union pension 7: Regular payments from Keogh or 401k accounts 8: Other sources including IRA or Keogh or don't know
	DIS_VAL	DIS_SC	2: Company or union disability 10: Other or don't know
Federal Employee Pensions	RET_VAL	RET_SC	2: Federal government retirement
	DIS_VAL	DIS_SC	3: Federal government disability
	SUR_VAL	SUR_SC	2: Federal government survivor benefits
Military Retirement	RET_VAL	RET_SC	3: U.S. military retirement
	DIS_VAL	DIS_SC	4: U.S. military retirement disability
	SUR_VAL	SUR_SC	3: U.S. military retirement survivor pension
State and Local Pensions	RET_VAL	RET_SC	4: State or local government retirement
	DIS_VAL	DIS_SC	5: State or local government employee disability
	SUR_VAL	SUR_SC	4: State or local government survivor pension

Note: Other income included in each category but not shown

**Table 2: Income Aggregates by Census Data Source**

<b>ACS</b>	<b>CPS ASEC</b>
<b>1. Earnings</b> Wages and Salary Self Employment	<b>1. Earnings</b> Wages and Salary Non-Farm Self Employment Farm Self Employment
<b>2. Property Income</b> Property Income	<b>2. Property Income</b> Interest Dividends Royalties
<b>3. Transfers and Pensions</b> Social Security  Supplemental Security Income Family Assistance and Other Cash Welfare  Retirement	<b>3. Transfers</b> Social Security Railroad Retirement Supplemental Security Income Family Assistance and Other Cash Welfare
	<b>4. Pensions</b> Private Pensions Federal Employee Pensions Military Retirement State and Local pensions
Other (Both Transfers and Pensions)	Unemployment Compensation Worker Compensation Veteran's Payments

Note: The specific variables used in the CPS ASEC for each income category are shown in Table 1. No corresponding appendix table exists for the ACS because the ACS variables map directly to the income categories in this table.

**Table 3: NIPA Benchmark Personal to Money Income and Common Universe Adjustments (Millions of Dollars)**

<b>A</b>		<b>NIPA Table</b>	<b>Line</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>Wages and Salary</b>									
	Wages and Salary	2.1	3	6,396,044	6,532,812	6,252,236	6,377,521	6,638,687	6,926,756
	Food furnished to employees (including military)	2.4.5	84	-14,727	-15,012	-15,599	-15,305	-16,778	-17,128
	Employees' lodging	7.12	173	-440	-724	-682	-610	-629	-656*
	Standard clothing issued to military personnel	7.12	172	-417	-396	-445	-397	-361	-377*
	Wages of foreign professional and migratory workers	6.3 (C and D)	89 (C) 99 (D)	14,731	15,940	13,319	13,968	14,190	14,628
	<b>Subtotal</b>			<b>6,395,191</b>	<b>6,532,620</b>	<b>6,248,829</b>	<b>6,375,177</b>	<b>6,635,109</b>	<b>6,923,223</b>
<b>B</b>	<b>Non-Farm Self Employment</b>	<b>NIPA Table</b>	<b>Line</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
	Proprietors' income with inventory valuation and capital consumption adjustments	2.1	11	979,170	1,026,474	972,996	1,032,693	1,155,132	1,224,912
	Inventory Valuation Adjustment	1.12	36	7	5	-1	6	9	2
	Capital Consumption Adjustment	1.12	37	-82	-146	-139	-150	-199	-146
	Proprietorship and partnership income paid to fiduciaries	7.14	7	-1,704	-1,701	-1,526	-1,643	-1,679	-1,780*
	Defaulter's gain/Bad debt expense	7.14	6	-21,223	-32,217	-40,337	-32,576	-14,758	-31,553*
	Construction adjustment	7.12	179	-2,107	-499	-7	-639	-561	-595*
	Income From Tax Exempt Cooperatives	7.14	8	-4,361	-5,167	-5,563	-5,807	-6,180	-6,553*
	Disaster Adjustments	7.14	10	0	1,040	0	0	0	0*
	<b>Subtotal</b>			<b>949,700</b>	<b>987,789</b>	<b>925,422</b>	<b>991,884</b>	<b>1,131,764</b>	<b>1,184,285</b>

<b>C</b>	<b>Farm self-employment income</b>	<b>NIPA Table</b>	<b>Line</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
	Proprietors' income with inventory valuation and capital consumption adjustments	2.1	10	38,103	46,991	35,462	45,998	72,553	75,361
	Capital consumption adjustment	1.12	33	-6,135	-6,513	-6,360	-5,847	-5,935	-5,936
	Rental value of farm dwellings	2.4.5	53	-20,567	-20,526	-20,713	-21,225	-22,444	-24,090
	Food produced and consumed on farms	2.4.5	29	-403	-420	-394	-395	-373	-551
	Change in farm inventories	7.3.5	29	706	-1,607	1,602	7,323	6,359	11,742
	Monetary interest received by corporations	7.15	4	-518	-372	-288	-237	-195	-203*
	Valuation adjustment, Commodity Credit Corporation loans	7.15	5	-332	-2,889	-312	770	-381	-396*
	Patronage dividends received from cooperatives	7.15	9	733	381	380	370	370	384*
	<b>Subtotal</b>			<b>11,587</b>	<b>15,045</b>	<b>9,377</b>	<b>26,757</b>	<b>49,954</b>	<b>56,312</b>

<b>D</b>	<b>Interest</b>	<b>NIPA Table</b>	<b>Line</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
	Personal Interest Income	2.1	14	1,350,133	1,361,616	1,263,933	1,195,027	1,204,063	1,211,632
	Interest received by nonprofits	2.9	50	-33,248	-32,608	-31,071	-29,508	-32,424	-32,628*
	Interest received by fiduciaries	*1		-18,659	-18,818	-17,468	-16,515	-16,640	-16,745
	Imputed interest income	7.11	66	-697,889	-737,837	-754,283	-758,413	-771,440	-781,549
	Unredeemed interest on US savings bonds	*2		-742	-698	-521	-485	-479	-349
	IRA-Keogh	*3		-49,097	-37,693	-23,755	-20,724	-20,880*	-21,012*
	Tax-exempt interest	*4		-79,351	-79,822	-73,574	-75,163	-72,995	-72,398*
	Interest on assets of mutual funds (to dividends)	*5		-107,161	-106,090	-84,277	-69,581	-70,107*	-70,547*
	<b>Subtotal</b>			<b>363,986</b>	<b>348,050</b>	<b>278,985</b>	<b>224,639</b>	<b>219,097</b>	<b>216,405</b>

<b>E Dividends</b>	<b>NIPA Table</b>	<b>Line</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Personal dividend income	2.1	15	816,515	805,439	547,850	544,616	680,538	746,909
Dividends received by nonprofits	2.9	51	-23,858	-17,822	-15,173	-17,383	-20,327	-22,309*
Dividends received by fiduciaries	*1		-26,632	-26,271	-17,869	-17,764	-22,197	-24,362
IRA-Keogh	*6		-104,149	-104,707	-70,548	-68,765	-87,290*	-95,803*
Small business corporation income	*7		-400,730	-360,626	-330,512	-358,420	-447,872*	-491,552*
Interest on assets of mutual funds	*5		107,161	106,090	84,277	69,581	70,107	70,547
Imputed dividends received by persons	7.10	13	-62,517	-61,177	-53,455	-51,419	-51,296	-54,128
<b>Subtotal</b>			<b>305,790</b>	<b>340,926</b>	<b>144,569</b>	<b>100,446</b>	<b>121,662</b>	<b>129,301</b>

<b>F Rent and Royalties</b>	<b>NIPA Table</b>	<b>Line</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Rental income with capital consumption adjustment	2.1	12	189,410	262,106	333,700	402,755	484,382	541,156
Rental income received by fiduciaries	*1		-3,826	-5,295	-6,741	-8,136	-9,785	-10,932
Rental income received by nonprofits	7.9	14	-5,602	-6,157	-7,308	-7,995	-9,351	-10,270
Imputed rent of owner-occupied dwellings	7.12	139	-68,081	-130,040	-189,452	-236,153	-283,861	-302,453*
Rental Subsidy	7.12	136	-7,940	-3,588	-1,982	-1,512	-965	-1,078*
Capital consumption adjustment	6.13D	17	110,220	127,269	127,432	126,373	138,160	132,691
<b>Subtotal</b>			<b>214,181</b>	<b>244,295</b>	<b>255,649</b>	<b>275,332</b>	<b>318,580</b>	<b>349,113</b>

<b>G Social Security</b>	<b>NIPA Table</b>	<b>Line</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Social Security	3.12	5	575,653	605,542	664,470	690,174	713,276	762,165
Lump sum payments	*8		-203	-205	-201	-203	-204	-204
<b>Subtotal</b>			<b>575,450</b>	<b>605,337</b>	<b>664,269</b>	<b>689,971</b>	<b>713,072</b>	<b>761,961</b>

<b>H Railroad Retirement</b>	<b>NIPA Table</b>	<b>Line</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Railroad Retirement	3.12	12	9,813	10,068	10,630	10,779	10,963	11,410
Lump sum payments	*9		-4	-4	-3	-3	-3	-3
<b>Subtotal</b>			<b>9,809</b>	<b>10,064</b>	<b>10,627</b>	<b>10,776</b>	<b>10,960</b>	<b>11,407</b>

<b>I</b>	<b>Supplemental Security Income (SSI)</b>	<b>NIPA Table</b>	<b>Line</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
	Federal Supplemental Security Income (SSI)	3.12	23	36,879	38,650	42,623	44,600	45,853	48,217
	State Supplemental Security Income	3.12	36	5,322	5,367	4,958	4,559	4,491	4,275
	<b>Subtotal</b>			<b>42,201</b>	<b>44,017</b>	<b>47,581</b>	<b>49,159</b>	<b>50,344</b>	<b>52,492</b>

<b>J</b>	<b>Family Assistance and Other Cash Welfare</b>	<b>NIPA Table</b>	<b>Line</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
	Family Assistance	3.12	35	18,406	19,126	21,264	22,421	20,800	20,112
	General Assistance	3.12	37	14,316	16,334	16,731	18,247	19,040	20,345
	<b>Subtotal</b>			<b>32,722</b>	<b>35,460</b>	<b>37,995</b>	<b>40,668</b>	<b>39,840</b>	<b>40,457</b>

<b>K</b>	<b>Unemployment Compensation</b>	<b>NIPA Table</b>	<b>Line</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
	Unemployment insurance	3.12	7	32,739	51,147	131,210	138,854	107,559	84,156

<b>L</b>	<b>Worker Compensation</b>	<b>NIPA Table</b>	<b>Line</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
	Federal	7.8	22	2,439	2,506	2,592	2,728	2,906	2,731
	State and Local	7.8	30	15,130	13,987	12,634	11,851	11,751	11,538
	Private	7.8	24	65,345	63,159	57,854	57,534	59,860	64,329
	Noncash and lump-sum payments	*10		-26,627	-29,012	-28,706	-28,600	-29,900	-31,538*
	Black lung payments	3.12	22	566	522	480	444	405	366
	<b>Subtotal</b>			<b>56,853</b>	<b>51,162</b>	<b>44,854</b>	<b>43,957</b>	<b>45,022</b>	<b>47,426</b>

<b>M</b>	<b>Veteran's Payments</b>	<b>NIPA Table</b>	<b>Line</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
	Veteran's Payments	3.12	17	40,138	43,464	49,980	56,431	61,753	68,698
	Lump sum payments	*11		-2,468	-2,231	-2,322	-2,351	-2,342	-2,342
	<b>Subtotal</b>			<b>37,670</b>	<b>41,233</b>	<b>47,658</b>	<b>54,080</b>	<b>59,411</b>	<b>66,356</b>

<b>N</b>	<b>Private Pensions</b>	<b>NIPA Table</b>	<b>Line</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
	Private pension plans	7.21	20	158,741	166,021	167,788	169,645	173,437	178,427

<b>O</b>	<b>Federal Employee Pensions</b>	<b>NIPA Table</b>	<b>Line</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
	Federal civilian pension plans	7.22	34	63,532	66,025	70,622	71,686	72,814	77,138
	Lump sum payments	*12		-184	-165	-183	-131	-149	-214
	<b>Subtotal</b>			<b>63,348</b>	<b>65,860</b>	<b>70,439</b>	<b>71,555</b>	<b>72,665</b>	<b>76,924</b>

<b>P</b>	<b>Military Retirement</b>	<b>NIPA Table</b>	<b>Line</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
	Federal military pensions	7.22	35	45,237	48,242	51,460	51,950	52,399	54,570

<b>Q</b>	<b>State and Local Pensions</b>	<b>NIPA Table</b>	<b>Line</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
	State and local employee retirement	7.23	25	173,536	185,469	197,818	213,115	228,379	243,289
	Lump sum payments	*13		-5,306	-5,671	-6,048	-6,516	-6,982	-7,438
	<b>Subtotal</b>			<b>168,230</b>	<b>179,798</b>	<b>191,770</b>	<b>206,599</b>	<b>221,397</b>	<b>235,851</b>

Source: US Bureau of Economic Analysis National Income and Product Account Tables unless otherwise specified in the table footnotes.

Table 3 Footnotes:

*	Data not yet available for this year. Estimated based on data from previous years.
*1	Estimated from ratio of income received by fiduciaries to total income from 1990-1996 in Roemer (2000).
*2	Calculated by multiplying the share of the value total bonds to the value of total debt by the total interest payments made in a given year.
*3	Calculated by multiplying the dollar value of assets in the US Census 2012 Statistical Abstract of a) deposits and money market accounts and b) bonds by a representative interest rate minus average fees for bond and money market mutual funds. The interest rates used were a) the annual 90 day financial commercial paper rate for deposit and money market holdings and b) the annual 5-year T-bill rate for bonds from the Federal Reserve historical data. The fee data is from Investment Company Institute.
*4	IRS Individual Income Tax Returns Publication 1304, Table A.
*5	Calculated based on the assets in money market mutual funds and bonds from the U.S. Census 2012 Statistical Abstract. The interest rates and fee data used are the same as for the IRA-Keogh above.
*6	Calculated based on ratio of IRA equity to total equity holdings in the U.S. Census 2012 Statistical Abstract.
*7	IRS S corporation statistics.
*8	2012 Annual Statistical Supplement to the Social Security Bulletin, Table 4.A5.
*9	U.S. Railroad Retirement Board, Annual Railroad Retirement Act & Railroad Unemployment Insurance Act Data Statistical Tables, data through fiscal year 2012.
*10	National Academy of Social Insurance reports on Workers' Compensation: Benefits, Coverage, and Costs.
*11	U.S. Department of Veteran's Affairs Annual Benefits Report, 2011.
*12	Data provided upon request by OPM.
*13	Author's calculation from the Annual Survey of Public Pensions.

**Table 4: CPS ASEC Specific Benchmark Universe Adjustments (Millions of Dollars)**

		2007	2008	2009	2010	2011	2012
<b>A</b>	<b>Wages and Salary</b>	6,395,191	6,532,620	6,248,829	6,375,177	6,635,109	6,923,223
	Sample Universe Adjustments						
	Institutionalized	-11,169	-10,980	-9,726	-9,281	-9,164	-9,056
	Decedents	-19,680	-20,137	-20,646	-21,051	-22,808	-24,699
	Overseas	-14,400	-15,000	-16,100	-17,000	-17,400	-18,155
	Military on US post without family	-8,299	-8,536	-7,092	-7,289	-7,509	-7,324
	<b>Benchmark</b>	<b>6,341,642</b>	<b>6,477,968</b>	<b>6,195,266</b>	<b>6,320,555</b>	<b>6,578,228</b>	<b>6,863,988</b>

		2007	2008	2009	2010	2011	2012
<b>B</b>	<b>Non-Farm Self Employment</b>	947,996	986,088	923,896	990,241	1,130,085	1,182,272
	Sample Universe Adjustments						
	Institutionalized	-3,026	-2,678	-2,433	-2,927	-2,260	-2,814
	Decedents	-1,939	-1,967	-1,870	-1,799	-1,952	-2,017
	Overseas	0	0	0	0	0	0
	Military on US post without family	-122	-47	-184	-55	-46	-63
	<b>Benchmark</b>	<b>942,909</b>	<b>981,396</b>	<b>919,409</b>	<b>985,460</b>	<b>1,125,827</b>	<b>1,177,377</b>

		2007	2008	2009	2010	2011	2012
<b>C</b>	<b>Farm self-employment income</b>	11,587	15,045	9,377	26,757	49,954	56,312
	Sample Universe Adjustments						
	Institutionalized	-118	-123	-89	-130	-142	-173
	Decedents	-203	-286	-174	-233	-478	-229
	Overseas	0	0	0	0	0	0
	Military on US post without family	-5	-2	-7	-2	-3	-4
	<b>Benchmark</b>	<b>11,261</b>	<b>14,635</b>	<b>9,107</b>	<b>26,391</b>	<b>49,331</b>	<b>55,906</b>

		2007	2008	2009	2010	2011	2012
<b>D</b>	<b>Interest</b>	363,986	348,050	278,985	224,639	219,097	216,405
	Sample Universe Adjustments						
	Institutionalized	-6,365	-7,565	-4,849	-6,022	-5,692	-6,047
	Decedents	-2,954	-2,296	-2,606	-2,188	-2,007	-2,060
	Overseas	-630	-561	-412	-502	-661	-665
	Military on US post without family	-123	-145	-347	-428	-287	-146
	<b>Benchmark</b>	<b>353,915</b>	<b>337,483</b>	<b>270,771</b>	<b>215,499</b>	<b>210,450</b>	<b>207,486</b>

		2007	2008	2009	2010	2011	2012
<b>E</b>	<b>Dividends</b>	305,790	340,926	144,569	100,446	121,662	129,301
	Sample Universe Adjustments						
	Institutionalized	-3,849	-4,475	-2,102	-2,744	-3,217	-3,728
	Decedents	-1,313	-1,163	-1,192	-1,295	-1,343	-1,583
	Overseas	-381	-332	-179	-229	-373	-410
	Military on US post without family	-74	-86	-150	-195	-162	-90
	<b>Benchmark</b>	<b>300,172</b>	<b>334,870</b>	<b>140,946</b>	<b>95,983</b>	<b>116,566</b>	<b>123,491</b>

		2007	2008	2009	2010	2011	2012
<b>F</b>	<b>Rent and Royalties</b>	214,181	244,295	255,649	275,332	318,580	349,113
	Sample Universe Adjustments						
	Institutionalized	-893	-1,456	-1,280	-2,030	-2,290	-2,701
	Decedents	-745	-933	-1,044	-918	-1,044	-1,131
	Overseas	-88	-108	-109	-169	-266	-297
	Military on US post without family	-17	-28	-92	-144	-116	-65
	<b>Benchmark</b>	<b>212,437</b>	<b>241,770</b>	<b>253,124</b>	<b>272,071</b>	<b>314,865</b>	<b>344,919</b>

		2007	2008	2009	2010	2011	2012
<b>G</b>	<b>Social Security</b>	575,450	605,337	664,269	689,971	713,072	761,961
	Sample Universe Adjustments						
	Institutionalized	-17,871	-19,155	-20,005	-16,903	-17,205	-17,839
	Decedents	-11,427	-12,281	-16,399	-13,544	-14,255	-15,159
	Overseas	0	0	0	0	0	0
	Military on US post without family	-3	-13	-11	-3	-5	-7
	<b>Benchmark</b>	<b>546,149</b>	<b>573,889</b>	<b>627,854</b>	<b>659,521</b>	<b>681,606</b>	<b>728,956</b>

		2007	2008	2009	2010	2011	2012
<b>H</b>	<b>Railroad Retirement</b>	9,809	10,064	10,627	10,776	10,960	11,407
	Sample Universe Adjustments						
	Institutionalized	-305	-318	-320	-264	-264	-267
	Decedents	-111	-106	-205	-146	-136	-109
	Overseas	-53	-55	-59	-60	-61	-64
	Military on US post without family	0	0	0	0	0	0
	<b>Benchmark</b>	<b>9,340</b>	<b>9,585</b>	<b>10,042</b>	<b>10,306</b>	<b>10,498</b>	<b>10,967</b>

		2007	2008	2009	2010	2011	2012
<b>I</b>	<b>Supplemental Security Income (SSI)</b>	42,201	44,017	47,581	49,159	50,344	52,492
	Sample Universe Adjustments						
	Institutionalized	-1,311	-1,579	-1,604	-1,164	-1,137	-1,171
	Decedents	-249	-257	-297	-271	-336	-321
	Overseas	0	0	0	0	0	0
	Military on US post without family	-1	-1	0	-8	-1	-1
	<b>Benchmark</b>	<b>40,641</b>	<b>42,180</b>	<b>45,680</b>	<b>47,717</b>	<b>48,870</b>	<b>50,998</b>

		2007	2008	2009	2010	2011	2012
<b>J</b>	<b>Family Assistance and Other Cash Welfare</b>	32,722	35,460	37,995	40,668	39,840	40,457
	Sample Universe Adjustments						
	Institutionalized	-4,083	-3,300	-1,479	-1,115	-845	-861
	Decedents	-15	-13	-17	-15	-15	-17
	Overseas	0	0	0	0	0	0
	Military on US post without family	-11	-6	-1	-8	-9	-1
	<b>Benchmark</b>	<b>28,613</b>	<b>32,141</b>	<b>36,498</b>	<b>39,530</b>	<b>38,972</b>	<b>39,578</b>

		2007	2008	2009	2010	2011	2012
<b>K</b>	<b>Unemployment Compensation</b>	32,739	51,147	131,210	138,854	107,559	84,156
	Sample Universe Adjustments						
	Institutionalized	-409	-635	-975	-850	-710	-623
	Decedents	-71	-133	-328	-344	-248	-210
	Overseas	0	0	0	0	0	0
	Military on US post without family	-15	-19	-92	-81	-38	-19
	<b>Benchmark</b>	<b>32,243</b>	<b>50,360</b>	<b>129,816</b>	<b>137,579</b>	<b>106,563</b>	<b>83,304</b>

		2007	2008	2009	2010	2011	2012
<b>L</b>	<b>Worker Compensation</b>	56,853	51,162	44,854	43,957	45,022	47,426
	Sample Universe Adjustments						
	Institutionalized	-681	-1,030	-592	-447	-476	-552
	Decedents	-70	-96	-105	-71	-87	-83
	Overseas	0	0	0	0	0	0
	Military on US post without family	0	0	0	0	0	0
	<b>Benchmark</b>	<b>56,102</b>	<b>50,036</b>	<b>44,158</b>	<b>43,439</b>	<b>44,458</b>	<b>46,792</b>

		2007	2008	2009	2010	2011	2012
<b>M</b>	<b>Veteran's Payments</b>	37,670	41,233	47,658	54,080	59,411	66,356
	Sample Universe Adjustments						
	Institutionalized	-502	-540	-371	-345	-408	-509
	Decedents	-520	-511	-669	-642	-664	-707
	Overseas	0	0	0	0	0	0
	Military on US post without family	0	0	0	0	0	0
	<b>Benchmark</b>	<b>36,648</b>	<b>40,182</b>	<b>46,618</b>	<b>53,093</b>	<b>58,339</b>	<b>65,140</b>

		2007	2008	2009	2010	2011	2012
<b>N</b>	<b>Private Pensions</b>	158,741	166,021	167,788	169,645	173,437	178,427
	Sample Universe Adjustments						
	Institutionalized	-1,340	-1,521	-1,273	-1,238	-1,339	-1,206
	Decedents	-2,883	-3,220	-3,754	-3,199	-3,573	-3,462
	Overseas	-2,190	-2,307	-2,345	-2,373	-2,431	-2,501
	Military on US post without family	-7	-10	-2	-1	-1	-2
	<b>Benchmark</b>	<b>152,321</b>	<b>158,963</b>	<b>160,414</b>	<b>162,833</b>	<b>166,093</b>	<b>171,255</b>

		2007	2008	2009	2010	2011	2012
<b>O</b>	<b>Federal Employee Pensions</b>	63,348	65,860	70,439	71,555	72,665	76,924
	Sample Universe Adjustments						
	Institutionalized	-536	-605	-536	-523	-562	-521
	Decedents	-880	-1,079	-1,308	-1,126	-1,173	-1,176
	Overseas	0	0	0	0	0	0
	Military on US post without family	-3	-4	-1	-1	-1	-1
	<b>Benchmark</b>	<b>61,929</b>	<b>64,172</b>	<b>68,595</b>	<b>69,905</b>	<b>70,930</b>	<b>75,226</b>

		<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>P</b>	<b>Military Retirement</b>	45,237	48,242	51,460	51,950	52,399	54,570
	Sample Universe Adjustments						
	Institutionalized	-382	-442	-390	-379	-404	-369
	Decedents	-381	-451	-605	-523	-494	-524
	Overseas	0	0	0	0	0	0
	Military on US post without family	0	0	0	0	0	0
	<b>Benchmark</b>	<b>44,474</b>	<b>47,349</b>	<b>50,465</b>	<b>51,048</b>	<b>51,500</b>	<b>53,678</b>

		<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>Q</b>	<b>State and Local Pensions</b>	168,230	179,798	191,770	206,599	221,397	235,851
	Sample Universe Adjustments						
	Institutionalized	-1,465	-1,699	-1,500	-1,556	-1,763	-1,645
	Decedents	-1,399	-1,634	-1,904	-1,855	-2,040	-1,910
	Overseas	-2,729	-2,933	-3,152	-3,413	-3,670	-3,909
	Military on US post without family	0	0	0	0	0	0
	<b>Benchmark</b>	<b>162,638</b>	<b>173,533</b>	<b>185,213</b>	<b>199,776</b>	<b>213,924</b>	<b>228,386</b>

Source: Current Population Survey Annual Social and Economic Supplement and American Community Survey and author calculations discussed in text

**Table 5: ACS Specific Benchmark Universe Adjustments (Millions of Dollars)**

<b>A</b>	<b>Wages and Salary</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
	Wages and Salary	6,395,191	6,532,620	6,248,829	6,375,177	6,635,109	6,923,223
	Sample Universe Adjustments						
	Decedents	-13,080	-13,945	-13,895	-13,987	-14,562	-15,499
	Overseas	-14,400	-15,000	-16,100	-17,000	-17,400	-18,155
	<b>Benchmark</b>	<b>6,367,711</b>	<b>6,503,675</b>	<b>6,218,834</b>	<b>6,344,190</b>	<b>6,603,147</b>	<b>6,889,569</b>
<b>B</b>	<b>Self Employment</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
	Non-Farm Self Employment Income	947,996	986,088	923,896	990,241	1,130,085	1,182,272
	Farm Self-Employment Income	11,587	15,045	9,377	26,757	49,954	56,312
	Sample Universe Adjustments						
	Decedents	-1,670	-1,660	-1,578	-1,495	-1,566	-1,666
	Overseas	0	0	0	0	0	0
	<b>Benchmark</b>	<b>957,912</b>	<b>999,473</b>	<b>931,696</b>	<b>1,015,503</b>	<b>1,178,472</b>	<b>1,236,918</b>
<b>C</b>	<b>Property</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
	Interest	363,986	348,050	278,985	224,639	219,097	216,405
	Dividends	305,790	340,926	144,569	100,446	121,662	129,301
	Rent and Royalties	214,181	244,295	255,649	275,332	318,580	349,113
	Sample Universe Adjustments						
	Decedents	-6,107	-6,802	-6,133	-5,667	-5,904	-6,180
	Overseas	-1,100	-1,000	-700	-900	-1,300	-1,372
	<b>Benchmark</b>	<b>876,750</b>	<b>925,469</b>	<b>672,370</b>	<b>593,849</b>	<b>652,135</b>	<b>687,268</b>

<b>D Social Security</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Social Security	575,450	605,337	664,269	689,971	713,072	761,961
Sample Universe Adjustments						
Decedents	-9,800	-10,434	-11,117	-11,807	-12,263	-12,821
Overseas	0	0	0	0	0	0
<b>Benchmark</b>	<b>565,650</b>	<b>594,903</b>	<b>653,152</b>	<b>678,164</b>	<b>700,809</b>	<b>749,140</b>

<b>E Supplemental Security Income</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Supplemental Security Income	42,201	44,017	47,581	49,159	50,344	52,492
Sample Universe Adjustments						
Decedents	-367	-357	-360	-477	-505	-524
Overseas	0	0	0	0	0	0
<b>Benchmark</b>	<b>41,834</b>	<b>43,660</b>	<b>47,221</b>	<b>48,682</b>	<b>49,839</b>	<b>51,968</b>

<b>F Family Assistance and Other Cash Welfare</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Family Assistance and Other Cash Welfare	32,722	35,460	37,995	40,668	39,840	40,457
Sample Universe Adjustments						
Decedents	-100	-85	-62	-64	-62	-61
Overseas	0	0	0	0	0	0
<b>Benchmark</b>	<b>32,622</b>	<b>35,375</b>	<b>37,933</b>	<b>40,604</b>	<b>39,778</b>	<b>40,396</b>

<b>G Retirement</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Railroad Retirement	9,809	10,064	10,627	10,776	10,960	11,407
Private Pensions	158,741	166,021	167,788	169,645	173,437	178,427
Federal Employee Pensions	63,348	65,860	70,439	71,555	72,665	76,924
Military Retirement	45,237	48,242	51,460	51,950	52,399	54,570
State and Local Pensions	168,230	179,798	191,770	206,599	221,397	235,851
Sample Universe Adjustments						
Decedents	-6,374	-6,757	-7,030	-7,307	-7,920	-8,422
Overseas	-4,972	-5,295	-5,556	-5,845	-6,162	-6,474
<b>Benchmark</b>	<b>434,019</b>	<b>457,933</b>	<b>479,498</b>	<b>497,372</b>	<b>516,775</b>	<b>542,282</b>

  

<b>H Other</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Unemployment Compensation	32,739	51,147	131,210	138,854	107,559	84,156
Worker Compensation	56,853	51,162	44,854	43,957	45,022	47,426
Veteran's Payments	37,670	41,233	47,658	54,080	59,411	66,356
Sample Universe Adjustments						
Decedents	-1,386	-1,362	-1,436	-1,509	-1,556	-1,635
Overseas	0	0	0	0	0	0
<b>Benchmark</b>	<b>125,876</b>	<b>142,180</b>	<b>222,286</b>	<b>235,382</b>	<b>210,435</b>	<b>196,303</b>

Source: American Community Survey and author calculations discussed in text

**Table 6: Census Survey Aggregates (Millions of Dollars)**

<b>A</b>	<b>CPS ASEC</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
	Wages and Salary	6,141,443	6,231,215	6,131,739	6,152,018	6,455,892	6,690,009
	Non-Farm Self Employment	390,548	385,821	337,750	345,763	343,745	362,352
	Farm self-employment	29,896	34,872	25,441	28,122	38,026	29,574
	<b>Earnings</b>	<b>6,561,887</b>	<b>6,651,908</b>	<b>6,494,930</b>	<b>6,525,903</b>	<b>6,837,663</b>	<b>7,081,935</b>
	<b>Self Employment (Farm + Non-Farm)</b>	<b>420,443</b>	<b>420,692</b>	<b>363,191</b>	<b>373,885</b>	<b>381,771</b>	<b>391,926</b>
	Interest	243,083	181,340	173,352	161,404	149,896	150,150
	Dividends	121,801	91,070	93,173	97,489	96,519	121,487
	Rent and Royalties	63,441	71,417	70,075	69,705	84,299	86,443
	<b>Property</b>	<b>428,326</b>	<b>343,827</b>	<b>336,600</b>	<b>328,598</b>	<b>330,714</b>	<b>358,079</b>
	Social Security	492,700	534,994	574,055	580,944	625,448	654,991
	Railroad Retirement	4,504	4,488	7,017	7,071	6,097	4,754
	Supplemental Security Income (SSI)	33,008	37,719	39,168	39,850	45,097	45,598
	Family Assistance and Other Cash Welfare	6,052	6,436	6,631	7,493	7,683	6,785
	Unemployment Compensation	21,876	38,882	99,142	97,191	69,644	54,976
	Worker Compensation	12,914	13,765	12,909	12,567	11,981	13,066
	Veteran's Payments	29,092	33,396	37,200	36,014	42,132	44,213
	<b>Transfers</b>	<b>600,146</b>	<b>669,679</b>	<b>776,122</b>	<b>781,130</b>	<b>808,082</b>	<b>824,384</b>
	Private Pensions	152,321	158,963	160,414	162,833	166,093	171,255
	Federal Employee Pensions	61,929	64,172	68,595	69,905	70,930	75,226
	Military Retirement	44,474	47,349	50,465	51,048	51,500	53,678
	State and Local Pensions	162,638	173,533	185,213	199,776	213,924	228,386
	<b>Pensions</b>	<b>421,362</b>	<b>444,017</b>	<b>464,687</b>	<b>483,562</b>	<b>502,447</b>	<b>528,545</b>
	<b>Transfers and Pensions</b>	<b>1,021,508</b>	<b>1,113,696</b>	<b>1,240,809</b>	<b>1,264,692</b>	<b>1,310,529</b>	<b>1,352,929</b>
	<b>Total</b>	<b>7,884,834</b>	<b>7,992,924</b>	<b>7,931,476</b>	<b>7,980,805</b>	<b>8,346,862</b>	<b>8,625,339</b>

<b>B ACS</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Wages and Salary	5,940,000	6,190,000	6,100,000	5,970,000	6,090,000	6,330,000
Self Employment	483,557	467,297	429,334	397,043	403,440	418,530
<b>Earnings</b>	<b>6,423,557</b>	<b>6,657,297</b>	<b>6,529,334</b>	<b>6,367,043</b>	<b>6,493,440</b>	<b>6,748,530</b>
<b>Property</b>	<b>436,367</b>	<b>463,559</b>	<b>398,952</b>	<b>364,981</b>	<b>368,571</b>	<b>387,099</b>
Social Security	458,599	480,828	517,259	553,426	575,979	603,536
Supplemental Security Income	40,833	36,251	38,584	58,244	61,314	64,091
Family Assistance and Other Cash Welfare	9,648	10,205	12,024	14,107	13,800	13,595
Retirement	403,448	416,373	431,183	445,653	469,451	491,392
Other	145,377	149,754	180,411	199,174	189,071	179,850
<b>Transfers and Pensions</b>	<b>1,057,904</b>	<b>1,093,411</b>	<b>1,179,462</b>	<b>1,270,604</b>	<b>1,309,615</b>	<b>1,352,464</b>
<b>Total</b>	<b>7,917,828</b>	<b>8,214,267</b>	<b>8,107,748</b>	<b>8,002,628</b>	<b>8,171,626</b>	<b>8,488,093</b>

Source: Current Population Survey Annual Social and Economic Supplement and American Community Survey

**Table 7: Census Survey Aggregates Relative to NIPA Benchmark**

<b>A</b>	<b>CPS ASEC</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
	Wages and Salary	96.8	96.2	99.0	97.3	98.1	97.5
	Non-Farm Self Employment	41.3	39.2	36.7	35.0	30.5	30.7
	Farm self-employment	265.5	238.3	279.3	106.6	77.1	52.9
	<b>Earnings</b>	<b>89.9</b>	<b>89.0</b>	<b>91.2</b>	<b>89.0</b>	<b>88.2</b>	<b>87.4</b>
	Self Employment (Farm + Non-Farm)	<b>44.0</b>	<b>42.2</b>	<b>39.1</b>	<b>36.9</b>	<b>32.4</b>	<b>31.7</b>
	Self Employment						
	Relative to NIPA minus misreporting adj.	<b>95.2</b>	<b>74.5</b>	<b>74.9</b>	<b>70.5</b>	<b>56.0</b>	<b>59.6</b>
	Interest	68.7	53.7	64.0	74.9	71.2	72.4
	Dividends	40.6	27.2	66.1	101.6	82.8	98.4
	Rent and Royalties	29.9	29.5	27.7	25.6	26.8	25.1
	<b>Property</b>	<b>49.4</b>	<b>37.6</b>	<b>50.6</b>	<b>56.3</b>	<b>51.5</b>	<b>53.0</b>
	Social Security	90.2	93.2	91.4	88.1	91.8	89.9
	Railroad Retirement	48.2	46.8	69.9	68.6	58.1	43.3
	Supplemental Security Income (SSI)	81.2	89.4	85.7	83.5	92.3	89.4
	Family Assistance and Other Cash Welfare	21.2	20.0	18.2	19.0	19.7	17.1
	Unemployment Compensation	67.8	77.2	76.4	70.6	65.4	66.0
	Worker Compensation	23.0	27.5	29.2	28.9	26.9	27.9
	Veteran's Payments	79.4	83.1	79.8	67.8	72.2	67.9
	<b>Transfers</b>	<b>80.0</b>	<b>83.9</b>	<b>82.5</b>	<b>78.8</b>	<b>81.7</b>	<b>80.4</b>
	Private Pensions	92.2	96.7	92.2	94.4	103.5	94.8
	Federal Employee Pensions	63.9	72.6	64.6	72.0	72.7	71.7
	Military Retirement	53.0	61.0	56.1	54.3	54.2	55.3
	State and Local Pensions	55.9	56.6	55.8	56.8	55.6	50.3
	<b>Pensions</b>	<b>69.9</b>	<b>73.8</b>	<b>69.7</b>	<b>71.4</b>	<b>73.7</b>	<b>68.3</b>
	<b>Transfers and Pensions</b>	<b>87.2</b>	<b>89.6</b>	<b>88.3</b>	<b>85.8</b>	<b>87.9</b>	<b>87.0</b>
	<b>Total</b>	<b>84.5</b>	<b>83.0</b>	<b>86.3</b>	<b>85.0</b>	<b>84.4</b>	<b>83.5</b>

<b>B ACS</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Wages and Salary	93.3	95.2	98.1	94.1	92.2	91.9
Self Employment	50.5	46.8	46.1	39.1	34.2	33.8
Self Employment						
Relative to NIPA minus misreporting adj.	108.6	82.2	88.0	74.3	58.9	63.3
<b>Earnings</b>	<b>87.7</b>	<b>88.7</b>	<b>91.3</b>	<b>86.5</b>	<b>83.4</b>	<b>83.0</b>
<b>Property</b>	<b>49.8</b>	<b>50.1</b>	<b>59.3</b>	<b>61.5</b>	<b>56.5</b>	<b>56.3</b>
Social Security	81.1	80.8	79.2	81.6	82.2	80.6
Supplemental Security Income	97.6	83.0	81.7	119.6	123.0	123.3
Family Assistance and Other Cash Welfare	29.6	28.8	31.7	34.7	34.7	33.7
Retirement	93.0	90.9	89.9	89.6	90.8	90.6
Other	115.5	105.3	81.2	84.6	89.8	91.6
<b>Transfers and Pensions</b>	<b>88.2</b>	<b>85.8</b>	<b>81.9</b>	<b>84.7</b>	<b>86.3</b>	<b>85.6</b>
<b>Total</b>	<b>84.2</b>	<b>84.7</b>	<b>87.5</b>	<b>84.7</b>	<b>82.1</b>	<b>81.7</b>
<b>Transfers and Pensions (Excluding Other)</b>	<b>85.0</b>	<b>83.4</b>	<b>82.0</b>	<b>84.7</b>	<b>85.7</b>	<b>84.7</b>
<b>Total (Excluding Other)</b>	<b>83.8</b>	<b>84.4</b>	<b>87.7</b>	<b>84.7</b>	<b>81.9</b>	<b>81.5</b>

<b>C</b>	<b>CPS ASEC (Prior Research)</b>	<b>1984</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>
	Wages and Salary	97.3	95.9	96.4	95.6	99.7	101.9	101.4	101.9
	Self Employment	70.2	68.5	65.3	58.6	58.9	54.8	48.5	52.6
	<b>Earnings</b>	<b>94.7</b>	<b>93.0</b>	<b>93.0</b>	<b>91.3</b>	<b>94.8</b>	<b>96.4</b>	<b>95.1</b>	<b>96.1</b>
	Interest	56.7	67.1	68.3	67.6	79.7	72.3	83.9	83.8
	Dividends	51.8	40.9	45.7	49.2	54.3	54.6	62.6	59.4
	Rent and Royalties	95.4	85.0	74.1	69.8	65.2	64.8	58.7	58.6
	<b>Property</b>	<b>58.1</b>	<b>62.8</b>	<b>63.3</b>	<b>63.2</b>	<b>69.8</b>	<b>65.7</b>	<b>72.9</b>	<b>70.9</b>
	Social Security and Railroad Retirement	91.2	90.6	88.6	87.1	87.8	92.3	92.0	91.7
	Supplemental Security Income (SSI)	84.8	78.9	84.6	75.5	84.2	78.0	77.1	84.2
	Family Assistance	78.4	74.4	74.4	72.2	76.4	73.1	70.5	67.7
	Other Cash Welfare	120.0	85.6	77.5	81.6	101.3	105.2	95.8	80.5
	Unemployment Compensation	74.8	79.9	82.5	72.8	77.6	90.0	91.3	81.6
	Worker Compensation	48.2	89.5	89.1	82.5	77.0	77.7	69.3	62.7
	Veteran's Payments	59.7	73.9	82.9	77.7	85.5	84.7	94.9	89.6
	<b>Transfers</b>	<b>84.9</b>	<b>87.6</b>	<b>86.8</b>	<b>83.6</b>	<b>85.6</b>	<b>89.5</b>	<b>89.2</b>	<b>88.3</b>
	Private Pensions	57.2	98.3	96.3	96.4	98.8	102.7	93.9	93.1
	Federal Employee Pensions	84.7	82.7	82.6	84.5	82.7	80.9	77.9	80.8
	Military Retirement	98.1	85.6	84.6	74.3	71.7	76.4	70.6	58.2
	State and Local Pensions	71.7	78.7	68.5	64.2	66.7	59.6	59.0	57.3
	<b>Pensions</b>	<b>69.5</b>	<b>88.9</b>	<b>85.5</b>	<b>83.1</b>	<b>83.6</b>	<b>83.1</b>	<b>78.2</b>	<b>76.6</b>
	<b>Total</b>	<b>88.3</b>	<b>89.3</b>	<b>89.4</b>	<b>88.0</b>	<b>91.7</b>	<b>92.9</b>	<b>92.2</b>	<b>92.6</b>

Source: US Bureau of Economic Analysis National Income and Product Account Tables, Current Population Survey Annual Social and Economic Supplement, American Community Survey, 1984 data from Coder and Scoon-Rogers (1996), and 1990-1996 data from Roemer (2000).

**Table 8: NIPA Adjusted Benchmark Summary (Millions of Dollars)**

<b>A</b>	<b>CPS-ASEC</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
	Wages and Salary	6,341,642	6,477,968	6,195,266	6,320,555	6,578,228	6,863,988
	Non-Farm Self Employment	942,909	981,396	919,409	985,460	1,125,827	1,177,377
	Farm self-employment	11,261	14,635	9,107	26,391	49,331	55,906
	<b>Earnings</b>	<b>7,295,813</b>	<b>7,473,998</b>	<b>7,123,782</b>	<b>7,332,406</b>	<b>7,753,386</b>	<b>8,097,271</b>
	Self Employment (Farm + Non-Farm)	954,171	996,031	928,516	1,011,851	1,175,159	1,233,283
	NIPA Misreporting Adjustment	514,562	431,517	443,884	481,833	494,334	575,893*
	<b>Self Employment - Misreporting Adj</b>	<b>441,716</b>	<b>565,013</b>	<b>484,639</b>	<b>530,657</b>	<b>681,386</b>	<b>657,984</b>
	Interest	353,915	337,483	270,771	215,499	210,450	207,486
	Dividends	300,172	334,870	140,946	95,983	116,566	123,491
	Rent and Royalties	212,437	241,770	253,124	272,071	314,865	344,919
	<b>Property</b>	<b>866,525</b>	<b>914,123</b>	<b>664,841</b>	<b>583,552</b>	<b>641,881</b>	<b>675,896</b>
	Social Security	546,149	573,889	627,854	659,521	681,606	728,956
	Railroad Retirement	9,340	9,585	10,042	10,306	10,498	10,967
	Supplemental Security Income (SSI)	40,641	42,180	45,680	47,717	48,870	50,998
	Family Assistance and Other Cash Welfare	28,613	32,141	36,498	39,530	38,972	39,578
	Unemployment Compensation	32,243	50,360	129,816	137,579	106,563	83,304
	Worker Compensation	56,102	50,036	44,158	43,439	44,458	46,792
	Veteran's Payments	36,648	40,182	46,618	53,093	58,339	65,140
	<b>Transfers</b>	<b>749,736</b>	<b>798,372</b>	<b>940,666</b>	<b>991,185</b>	<b>989,306</b>	<b>1,025,735</b>
	Private Pensions	152,321	158,963	160,414	162,833	166,093	171,255
	Federal Employee Pensions	61,929	64,172	68,595	69,905	70,930	75,226
	Military Retirement	44,474	47,349	50,465	51,048	51,500	53,678
	State and Local Pensions	162,638	173,533	185,213	199,776	213,924	228,386
	<b>Pensions</b>	<b>421,362</b>	<b>444,017</b>	<b>464,687</b>	<b>483,562</b>	<b>502,447</b>	<b>528,545</b>
	<b>Transfers and Pensions</b>	<b>1,171,098</b>	<b>1,242,389</b>	<b>1,405,353</b>	<b>1,474,747</b>	<b>1,491,753</b>	<b>1,554,280</b>
	<b>Total</b>	<b>9,333,436</b>	<b>9,630,510</b>	<b>9,193,976</b>	<b>9,390,705</b>	<b>9,887,020</b>	<b>10,327,447</b>

<b>B ACS</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Wages and Salary	6,367,711	6,503,675	6,218,834	6,344,190	6,603,147	6,889,569
Self Employment	957,912	999,473	931,696	1,015,503	1,178,472	1,236,918
<b>Earnings</b>	<b>7,325,623</b>	<b>7,503,147</b>	<b>7,150,529</b>	<b>7,359,694</b>	<b>7,781,619</b>	<b>8,126,487</b>
NIPA Misreporting Adjustment	514,562	431,517	443,884	481,833	494,334	575,893*
<b>Self Employment - Misreporting Adj</b>	<b>445,457</b>	<b>568,455</b>	<b>487,819</b>	<b>534,309</b>	<b>684,699</b>	<b>661,619</b>
<b>Property</b>	<b>876,750</b>	<b>925,469</b>	<b>672,370</b>	<b>593,849</b>	<b>652,135</b>	<b>687,268</b>
Social Security	565,650	594,903	653,152	678,164	700,809	749,140
Supplemental Security Income	41,834	43,660	47,221	48,682	49,839	51,968
Family Assistance and Other Cash Welfare	32,622	35,375	37,933	40,604	39,778	40,396
Retirement	434,019	457,933	479,498	497,372	516,775	542,282
Other	125,876	142,180	222,286	235,382	210,435	196,303
<b>Transfers and Pensions</b>	<b>1,200,001</b>	<b>1,274,050</b>	<b>1,440,089</b>	<b>1,500,204</b>	<b>1,517,637</b>	<b>1,580,090</b>
<b>Total</b>	<b>9,402,374</b>	<b>9,702,667</b>	<b>9,262,988</b>	<b>9,453,747</b>	<b>9,951,391</b>	<b>10,393,844</b>

Source: US Bureau of Economic Analysis National Income and Product Account Tables

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