

Integration of Micro and Macro Data on Consumer Income and Expenditures

July 30, 2012

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Abstract

This paper examines macro and micro sources of information about household income and spending. The Bureau of Economic Analysis (BEA) produces macro estimates of personal income and outlays (PI&O) that are part of the U.S. National Income and Product Accounts (NIPAs). The Current Population Survey Annual Statistical and Economic Supplement (CPS-ASEC) and the Consumer Expenditure Survey (CES) from the Bureau of Labor Statistics (BLS) are two household surveys used to produce micro estimates of household income and expenditures. The CPS-ASEC collects detailed data on household income and on health insurance coverage. The CES, through the Interview Survey and the Diary Survey, collects data on direct household expenditures, as well as on household income and financial assets. BEA's estimates of personal income (PI), disposable personal income (DPI), personal outlays (PO), and personal consumption expenditures (PCE) cover the personal sector in the U.S. economy, consisting of resident households and of the nonprofit institutions serving households (NPISHs). The income and consumption estimates are integrated using BEA estimates of household income and outlays (HI&O), which exclude NPISHs. BEA estimates of HI&O are adjusted to match the civilian noninstitutional population covered in CE and CPS-ASEC. Information from CPS-ASEC and the CES are used to distribute the adjusted BEA values by household type, primary source of income, and income quintiles. The integrated estimates are developed for the years 2006, 2008, and 2010, and the results of the integration are discussed.

Kevin J. Furlong of BEA's NIWD Research Group made a major contribution to the development of the integrated estimates.

1. Introduction

Macro estimates of personal income and outlays (PI&O) are produced by the Bureau of Economic Analysis (BEA) as part of the National Income and Product Accounts (NIPAs). Micro data on household income and spending are derived from two household surveys the Census Bureau's Current Population Survey Annual Statistical and Economic Supplement (CPS-ASEC) and the Bureau of Labor Statistics' (BLS) Consumer Expenditure Survey (CES). There are significant differences in coverage, definitions, and classification between the BEA estimates and the income and expenditures estimates derived from the micro sources. Understanding and accounting for these differences is required in order to integrate the estimates.

The plan of this paper is as follows:

- Sources, methods, definitions, and classifications used for the macro- and micro-level estimates and how they relate to one another
- Scope alignment of the macro and micro estimates
- Micro-level income and expenditures and micro-level indicators used to distribute macro-level income and expenditure components
- Results of the integration and discussion of measurement issues

2. Micro and Macro Income and Consumption Measures

Sources.—CPS-ASEC is an interview survey of a sample of households, conducted annually as a supplement to the monthly Current Population Survey (CPS). It has a sample size of around 75,000. The CES consists of two surveys: an Interview Survey, which is a recall survey that collects data on income and expenditures, and a Diary Survey, which requires respondents to record expenditures for small, frequently purchased items in two one-week diaries. Consumer units are the unit of measure for the CES. The consumer unit differs from the household unit in that, within a given household, there may be more than one consumer unit, based on measures of financial independence. The difference between the number of households in CPS-ASEC and the number of consumer units in the CES is generally small: in 2010, the number of households was 118.7 million, and the number of consumer units was 121.1 million. The CES is a rotating panel survey in which households have an initial interview, followed by four consecutive quarterly interviews. One-fourth of the households in the sample are replaced each quarter. The sample size for the Interview Survey is around 34,000, and the sample size for the Diary Survey is around 14,000. “Integrated” estimates of consumer expenditures published by the BLS combine data from the Interview and Diary surveys.

The sources used for the NIPA estimates of personal income and outlays are many and diverse, but can be characterized in general as being based on reports by businesses, which are collected administratively, from trade sources, in sample surveys such as the Census Bureau surveys of retail trade and service industries, and in economic censuses conducted at five-year intervals by the Census Bureau. Use of data from CPS-ASEC and CES is very limited: data on self-employment income from the CPS is used to develop adjustments for tax return nonfilers in the NIPA estimates of proprietors income, and in personal consumption expenditures (PCE), CES data for categories such as motor vehicle leasing are used, constituting less than one-half of one percent of the total PCE value.

Coverage—The civilian noninstitutional population is covered in both the CPS-ASEC and CES. PI&O estimates in the NIPAs cover the income and expenditures of those defined as U.S. residents in the national accounts, which includes nonprofit institutions serving households (NPISHs) and includes the institutionalized population, federal civilian and military personnel stationed abroad, and persons whose usual place of residence is the U.S. who are private employees working abroad for a period of less than one year.¹ Excluded from the NIPA definition of residents are foreign nationals who work and reside in the U.S. for part of the year. Also, they include the income and expenditures of those who died during the preceding year, who are not captured in the household surveys. Excluding NPISHs income and outlays from the PI&O and accounting for transfers between households and NPISHs gives a measure of household income and outlays (HI&O), which will be referenced during the remainder of the paper and used for the integration of the micro and macro estimates.²

Income Definitions.--Money income from CPS-ASEC was \$8.108 trillion in 2010, compared to NIPA household income of \$12.369 trillion.³ Money income from CPS-ASEC is essentially a measure of cash income from the following sources:

- Wages and salaries
- Self-employment income

¹ The inclusion of NPISHs in PI&O is treated as a scope difference rather than as a definitional difference.

² Separate estimates of household and NPISHs income and outlays are published annually in NIPA [Table 2.9 Income and Its Disposition by Households and by Nonprofit Institutions Serving Households](#).

³ Money income is calculated from CPS-ASEC [Table PINC-08 Source of Income in 2010-People 15 Years Old and Over, By Income of Specified Type in 2010, Age, Race, Hispanic Origin, and Sex](#), equal to total with income (211,492,000) times mean income (\$38,337). Total includes group quarters. Personal income is from NIPA [Table 2.1 Personal Income and Its Disposition](#), Line 1. NIPA estimates do not reflect revised estimates released July 27, 2012.

- Rental income from leasing of residential properties
- Royalties
- Interest and dividends
- Government transfers
- Transfers from households and other private sources
- Pensions ⁴

Household income in the NIPAs includes, with the exception of transfers from households and pension income, these forms of cash income, but is a broader measure of income in that it includes the following imputations and third-party payments:

- Employer contributions to employee pension and insurance funds
- In-kind income provided to employees
- Farm products consumed on farms
- The imputed rental income of owner-occupied housing
- Imputed interest received by depositors and insurance policyholders
- Interest and dividends received by entities holding household assets
- In-kind government social benefits
- Current transfers from business

In addition, NIPA household income subtracts employee and self-employed contributions for social insurance, which is not done in the case of money income.⁵

Employer contributions to employee pension and insurance funds consist of contributions to private employee pension and welfare funds, privately administered workers' compensation plans, government employee health and life insurance plans, and government employee retirement plans.⁶ Contributions equaled \$1089.9 billion in 2010, consisting of \$470.3 billion in pension and profit-sharing contributions and \$619.7 billion in contributions to private insurance funds. Most private insurance contributions were accounted for by group health insurance, equaling \$560.9 billion.

⁴ See DeNavas-Walt (2011), Appendix A, for listing of components of money income and Census Bureau P60-200 (1998), Appendix A for definitions of income components.

⁵ Employer contributions for social insurance (primarily Social Security and Medicare) are included in supplements to wages and salaries in compensation of employees, but are not included in household income, because the contributions added in employee compensation are subtracted in deriving household income. See NIPA [Table 2.1 Personal Income and Its Disposition](#) and [Table 3.6 Contributions for Government Social Insurance](#).

⁶ BEA (2011), "III. Supplements to Wages and Salaries".

In-kind income provided to employees consists of food, clothing, and lodging provided to civilian and military employees. The value of farm products consumed on farms equals the value of consumption less intermediate inputs. Together, these sources accounted for \$15.5 billion of personal income in 2010.

The imputed rental income of owner-occupied housing was \$230.0 billion in 2010; net of subsidies, it was \$228.5 billion. Owner-occupied imputed rental income equals the gross rental value of owner-occupied housing, less intermediate expenses, property taxes less subsidies, net interest, and depreciation at current replacement cost.⁷

Imputed interest received by depositors and insurance policyholders comes from banks, other depository institutions, regulated investment companies, life insurance carriers, and property-casualty insurance. The value of the imputed interest received by households was \$456.8 billion in 2010. The imputed interest received from depository institutions and regulated investment companies equals the value of the services, such as recordkeeping and check clearing, provided without explicit charge; income is imputed to depositors and shareholders to pay for these services. Imputed interest received from life insurers consists of the property income earned on life insurance and annuity reserves. Imputed interest received from property-casualty insurers consists of property income earned on reserves held to pay claims, known as technical reserves. This income is deemed to be paid out to policyholders and then paid back to the insurers as premium supplements.

Interest and dividends received by entities holding household assets include public and government retirement funds, fiduciaries (retained income), and interest on unredeemed federal government savings bonds. The estimated value of the interest received by these entities was \$209.7 billion in 2010.

In-kind government social benefits are those benefits provided for a specific purpose, for which households receive no discretionary cash income. These include health benefits under the Medicare, Medicaid, military dependent and retiree medical insurance, State Children's Health Insurance Program (SCHIP), and general assistance medical programs of state and local governments. Also included are food benefits under the Supplemental Nutrition Assistance Program (SNAP), formerly known as food stamps, and the Women's, Infants', and Children's (WIC) program. Some benefits, such as for education and employment and training, may be

⁷ The depreciation measure is designated as "consumption of fixed capital" in the NIPAs. See NIPA [Table 7.12 Imputations in the National Income and Product Accounts](#), lines 133 to 140.

provided both in cash and in-kind. The value of separately-identifiable government in-kind benefits in 2010 was \$1021.3 billion, the great majority of which is accounted for by Medicare and Medicaid. Though money income does not include the value of noncash benefits received by households from government, CPS-ASEC does collect information on participation in the Medicare and Medicaid programs and participation in the SNAP program, and derives values for participants in these programs which are used in alternate income measures and for measuring the impact of government benefits (and taxes) on income and poverty measures.

Retirement income included in CPS-ASEC money income equaled \$384.0 billion in 2010. This value includes pension income, survivors and disability benefits, and regular distributions from individual retirement accounts (IRAs), Keogh, and 401(k) plans. Pension income includes payments from companies, unions, Federal civilian and military retirement, state and local government retirement, railroad retirement, annuities or paid-up insurance policies, and other or unidentified retirement plans. Survivors and disability income includes income from the same sources, as well as benefits from workers' compensation and, in the case of disability benefits, from accident or disability insurance. With the exception of railroad retirement benefits of \$6.9 billion and a very small amount of Black Lung benefits, which are included in NIPA household income as government social benefits, retirement income is excluded from household income as defined in the NIPAs. Though not included in NIPA household income, however, benefits paid by employer-sponsored pension are estimated as an addenda item in a NIPA table covering employer contributions for employee pension and insurance funds, and equaled \$836.4 billion in 2010.⁸

Transfers from households and other private sources in CPS-ASEC include child support and alimony receipts and financial assistance from outside the household, and equaled \$48.7 billion in 2010. Transfers between resident households are considered intra-sectoral transfers and are not accounted for in the NIPAs. Transfers received from charities or other NPISHs would be included in household income in the NIPAs, though there does not appear to be any way in the CPS-ASEC data to identify financial assistance from NPISHs separately from assistance from other households. Transfers between resident and nonresident households are not included in the NIPA household income; the value of payments received from the rest of the world is netted against payments to the rest of the world in household outlays. In the integrated estimates, child support and alimony received will be included in household income, and

⁸ NIPA [Table 6.11D Employer Contributions for Employee Pension and Insurance Funds by Industry and by Type](#), Line 38.

payments for child support and alimony, based on CES data, will be included in household outlays.

The value of household income components not comparable to money income equaled \$3126.7 billion in 2010. Excluding the subtraction for employee and self-employed contributions for social insurance (primarily Social Security and Medicare), the net effect of these differences is \$2613.1 billion. Subtracting the value of pension income and private transfers in money income not comparable to personal income of \$432.7 billion, the remaining difference between money income and personal income is \$2.086 trillion, most of which is attributable to statistical differences, with the remainder attributable to scope differences and to additional definitional differences which cannot be separately identified. The remaining differences are largely accounted for by self-employment income and property income, with wages and salaries and government transfers making significantly smaller contributions to the differences. The ratio of CPS-ASEC self-employment income to the NIPA value is 0.350, with a dollar difference of \$673.3 billion. The property income ratio (including rents and royalties) is 0.380, with a dollar difference of \$713.0 billion. The wages and salaries are 0.957, with a dollar difference of \$276.5 billion, and the government social transfers ratio is 0.750, with a dollar difference of \$310.1 billion.

The low self-employment ratio is affected by significant adjustments made in the NIPAs, in particular for misreporting on income tax returns and capital consumption adjustments that change depreciation from a tax-reported basis to a current replacement cost basis. For 2009, nonfarm self-employment income in CPS-ASEC was \$337.5 billion, compared to nonfarm proprietorship and partnership income of \$431.9 billion reported to the Internal Revenue Service (IRS), a ratio of 0.781.⁹ The NIPA estimates make a number of adjustments to the IRS data, including an adjustment of \$444.1 billion for misreporting. Added to other adjustments, including capital consumption adjustments of \$152.1 billion, nonfarm proprietors' income reported in the NIPAs was \$902.0 billion in 2009.

Net current transfers from business include insurance payments, losses by business due to fraud and unrecovered thefts, corporate cash prizes, and payments from personal injury trust funds. Insurance payments to persons by business include automobile insurance, medical malpractice insurance, and net insurance settlements, which equal the difference between

⁹ 2010 IRS data are not yet available.

incurred losses and expected losses on property-casualty insurance. These transfers are not captured in the household surveys, with the possible exception of reimbursements for motor vehicle losses, some of which may be payments from commercial motor vehicles policies, in the CES.

To derive disposable household income, household current taxes are subtracted from household income. These consist of federal and state income taxes, motor vehicle licenses, personal property taxes, and hunting, fishing, and other personal licenses. They do not include estate and gift taxes, which are classified in the NIPAs as capital transfers. Federal and state income taxes are collected in CPS-ASEC; though they are not a subtraction in deriving money income, they are subtractions in alternate income definitions used by CPS-ASEC in determining the effects of benefits and taxes on income and poverty.

Household outlays consist of household consumption expenditures, household interest payments, and household current transfer payments. Household consumption expenditures consist of direct household expenditures for goods and services, imputed expenditures, expenditures financed by in-kind social benefits, and expenses of life insurers and pension funds holding household assets. Most direct household expenditures are comparable to CES consumer expenditures. Imputed expenditures, which have no counterparts in the CES, include the following:

- Gross rental value of owner-occupied housing¹⁰
- Financial services furnished without payment to depositors and borrowers
- Premium supplements for property and casualty insurance
- Farm products produced and consumed on farms¹¹
- Food, clothing, and lodging furnished to employees
- Employer contributions for health and life insurance

Financial services furnished without payment to depositors have their counterparts in household imputed interest received by commercial bank, savings institution, and credit union depositors and by shareholders in regulated investment companies. Borrower services are those provided on non-mortgage loans from commercial banks, and are that part of nominal interest paid by borrowers that are payments for services; household interest payments in household outlays are net of the value of these services. Premium supplements for property and casualty insurance

¹⁰ In NIPA [Table 7.12](#), the imputed rental value is net of intermediate expenses and investment in owner-occupied residential structures.

¹¹ In NIPA [Table 7.12](#), food produced and consumed on farms is net of intermediate inputs.

have their counterpart in imputed interest received by property-casualty insurance policyholders in household income. Farm products produced and consumed on farms are the gross value of farm own-consumption; the value net of intermediate inputs is included in household income. The values of food, clothing, and lodging furnished to employees have their counterparts in imputed wages and salaries in household income. None of these imputed expenditures have counterparts in CES consumer expenditures. Owner-occupied housing in CES consumer expenditures is accounted for by maintenance and repair expenses, mortgage interest, and other owner-occupant expenses, though CES does have estimates of the rental value of owner-occupied dwellings based on household self-reporting. Expenditures financed by in-kind government social benefits have their counterparts in household income, as previously discussed.

3. Adjusting the Scope of the Macro Estimates

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The first step in the integration of macro and micro income and consumption estimates is to adjust the scope of the NIPA estimates in order to align them with the civilian noninstitutional population covered in CPS-ASEC and the CES. In most cases this means removing certain population groups from the estimates, though in a couple of instances it means adding population groups. The following population groups are removed from the macro estimates:

- Institutionalized
- Decedents
- U.S. residents not physically present in the U.S.
 - U.S. government civilian and military personnel stationed abroad
 - Private employees whose usual place of residence is the U.S. who are on foreign assignment for a period of less than one year
- Domestic military living on post

The following groups are added to the macro estimates:

- Foreign nationals studying in the U.S.
- Foreign temporary agricultural and nonagricultural workers living in the U.S.
- Foreign professionals temporarily residing in the U.S.

Institutionalized.—The institutionalized population consists of those living in institutionalized group quarters, including correctional institutions, nursing homes, mental hospitals, hospitals or

wards for the chronically ill and for those who have no usual home elsewhere, and institutions for the mentally retarded, physically handicapped, and drug/alcohol abusers. Cash income of the institutionalized population is estimated using income of the institutionalized and total U.S. income from the 2000 Census of Population and Housing (Census 2003). Income shares for the following categories were calculated from the Census data:

- Wages and salaries
- Self-employment
- Interest, dividends, rental income, royalty income, income from estates & trusts
- Social Security or Railroad Retirement
- Supplemental Security Income
- Public assistance
- Retirement, survivor, or disability pensions
- Other income, including pensions and other retirement income, Veterans benefits, unemployment compensation, child support, and alimony.

The income shares from the 2000 Census were applied to the appropriate household income categories. Wages and salaries shares were applied to the components of compensation of employees, including employer contributions for employee pension and insurance funds and for government social insurance (the latter not included in household income). Self-employment income shares were applied to farm and nonfarm proprietors' income. Interest, dividends, and related income shares were applied to household interest income and dividend income. Social Security, Railroad Retirement, and Supplemental Security Income shares were applied to the respective government social benefits categories. Public assistance shares were applied to the family assistance and general assistance categories of government social benefits. Other income shares were applied to workers' compensation, unemployment compensation, other cash government social benefits, and current transfer receipts from business and from nonprofit institutions. Income shares ranged from less than 1 percent for wages and salaries and self-employment income to 9.4 percent for public assistance. Adjustments for institutionalized cash income were \$83.6 billion in 2010, 0.7 percent of household income.

In-kind government social benefits for the institutionalized include Medicare and Medicaid payments for nursing home care. These benefits totaled \$78.1 billion in 2010, 0.6 percent of household income, so that the total institutional adjustment to household income was \$161.7 billion, 1.3 percent of household income. Personal current taxes, disposable household income, and household outlays were also reduced by 1.3 percent.

Decedents.—The decedent adjustment removes the income and outlays of those who died during the reference year. Cash income of decedents was estimated using mortality rates by age, sex, and race, applied using Monte Carlo simulations to CPS databases for 2006 to 2009 matched on sex and race combinations to estimate decedents and their income. The weighted sum of the income variables was divided by 2 to represent decedent income for the year. Adjustments for decedent cash income were \$53.1 billion in 2010, 0.4 percent of household income.

Estimates of in-kind social benefits received by decedents from the Medicare and Medicaid programs are based on the results of a study which estimated the share of Medicare and Medicaid expenditures for persons in the last year of life (HSR 2002). According to the study, based on data from the 1992-1996 Medicare Beneficiary Study, 25 percent of Medicare Expenditures and 26 percent of Medicaid expenditures were for those in the last year of life. Percentages were adjusted to 24 percent for Medicare and 18 percent to account for nursing home care captured in the institutionalized adjustment. These benefits totaled \$195.5 billion in 2010, 1.6 percent of household income, so that the total decedent adjustment was \$248.6 billion, 2.0 percent of household income. Personal current taxes and disposable household income were also reduced by 2.0 percent, while household outlays were reduced by the same amount as household income.

U.S. residents not physically present in the U.S.-- The following income items of U.S. government civilian and military personnel stationed abroad are removed:

- Wage and salary disbursements
- Supplements to wages and salaries
- Dividends, interest, and rent on federal retirement plans
- Less: Contributions for government social insurance.

These adjustments are the same as those made in BEA's state personal income estimates, and are calculated as the difference between NIPA estimates for those income components and the state personal income components (SA06N, SA07). Earnings of private U.S. residents employed abroad for a period of less than one year, from unpublished data in BEA's International Transactions Accounts, are also excluded. The 2010 adjustments for federal workers were \$30.9 billion in 2010, and for private workers \$1.1 billion. Personal taxes are estimated as the difference between state personal current taxes and NIPA personal current taxes. Expenditures by federal government employees and by private employees abroad are estimated in the U.S. International Transactions Accounts and included as separate estimates in HCE.

Domestic military on post.—The income of military personnel living on post consists of wages and salaries, employer contributions for government social insurance, employer contributions for military retirement, employer contributions for group life insurance, and interest income on military retirement. The wages and salaries of domestic military personnel living on post are estimated as the product of the number of personnel and an average rate of pay. Estimates of the number of military personnel living on post are based on counts of these personnel from the 2000 and 2010 Decennial Censuses of Population and Housing, calculated as a percentage of total active duty military personnel, with the percentage interpolated between 2000 and 2010 and applied to the total number of military personnel in each year. Data on total active duty military personnel are from the Department of Defense’s Personnel and Military Casualty Statistics. Average pay was estimated using pay scale data from the Department of Defense’s Defense Finance and Accounting Service. Average wages and salaries equaled basic monthly pay and basic allowance for subsistence for military pay grade E-4. Employer contributions for social insurance were estimated using the Social Security/Medicare tax rate. Employer contributions for military retirement were estimated using military retirement contributions as a percentage of total military wages and salaries and applying this percentage to estimated wages and salaries for military living on post. Contributions for government social insurance, a subtraction in deriving household income, were calculated as twice the employer contributions for government social insurance. Personal current taxes, a subtraction in deriving disposable household income, were estimated by applying the overall tax rate on household income to basic pay. Personal outlays were assumed to be the same proportion of disposable income as the overall rate.

Foreign students, temporary workers, and professionals in the U.S.—Estimates of compensation for foreign workers studying at colleges and universities in the U.S., foreign professionals temporarily residing in the U.S., and foreign temporary agricultural and nonagricultural workers in the U.S. are from unpublished detail from the U.S. International Transactions accounts. Expenditures by these groups in the U.S. are estimated in the U.S. International Transactions Accounts.

The total amount of scope adjustments to household income for 2010 was \$443.0 billion, 3.6 percent of household income, of which \$273.6 billion was accounted for by Medicare and Medicaid payments for the institutionalized and decedents. This was also the amount by which household consumption was reduced, since Medicare and Medicaid payments are treated as income in the NIPAs which is used to finance health care expenditures.

4. Matches and Indicators

The integration of CPS-ASEC and CES income estimates into the scope-adjusted NIPA values required the identification of micro series that matched the macro series as defined in the NIPAs as closely as possible. For NIPA series which could not be matched to micro variables, indicators had to be developed to distribute the macro values. Most cash income included in household income was matched to CPS-ASEC series. Series were treated as matches if they referred to the same type of income, even if there were significant differences in the way the incomes were measured. The “coverage ratios”, calculated as the micro value divided by the macro value, differed considerably, though at least some of this variation reflected definitional differences.

Disposable Household Income

Compensation of employees.--Wages and salaries matched definitionally and had very high coverage ratios: 2010 CPS wages and salaries was 97 percent of the NIPA value. For supplements to wages and salaries, there are no matches with money income. However, data on payroll taxes and on employer contributions for health insurance collected in CPS-ASEC for use in alternative measures of income were matched to the two largest components of supplements. The health insurance contributions are a direct match, while in the case of payroll taxes, the portion of Social Security and Medicare (FICA) taxes paid by employees, these are assumed to be the same as employer payments and matched to employer contributions for old age, survivors, and disability insurance.¹² Wages and salaries are used as indicators for the remaining components, except for two very small components. For employer contributions to pension plans, wages and salaries of those participating in employer-sponsored pension plans are used. Private wages and salaries are used as the indicator for employer contributions to private workers' compensation, and total wages and salaries are used as indicators for group life insurance and for government social insurance contributions other than Social Security and Medicare and military medical insurance. These social insurance contributions consist primarily of unemployment insurance and state workers' compensation.

Proprietors' income.--The measures of income from self-employment differed definitionally and had low coverage ratios: CPS nonfarm self-employment income was 35 percent of the NIPA value. Self-employment income reported in CPS-ASEC would be expected in most instances to be the income reported on federal tax returns. For 2009, CPS-reported nonfarm self-employment income was \$337.8 billion, 78 percent of the \$431.9 net profit (less loss) reported by the Internal Revenue Service (IRS) for nonfarm proprietorships and.¹³ The NIPA estimates of proprietors'

¹² The employer and employee tax rates were the same through 2010, the latest year covered in this study.

¹³ 2010 IRS data are not yet available.

income use the IRS data as a starting point, but make substantial adjustments to align the estimates with NIPA definitions, to account for entities not captured in the IRS data, and to account for misreporting (7.14). Further adjustments were made for inventory valuation and to replace tax-based depreciation with depreciation measured at current replacement cost, known as consumption of fixed capital in the NIPAs (1.13, 2.1). The NIPA estimate of proprietors' income for 2009 was \$902.0 billion, more than twice as large as the IRS measure. The largest adjustment was for misreporting on tax returns, which consists of adjustments for underreporting by tax filers and for proprietors' income of nonfilers. The misreporting adjustment was \$444.1 billion in 2009.

Rental income of households—This is measured in the NIPAs as rental income on tenant-occupied dwellings, royalties, and the imputed rental income of owner-occupied housing. The CPS-ASEC series for rents, royalties, estates or trusts is matched to the sum of tenant-occupied dwellings income and royalties. The match is clearly not exact because of the inclusion of estate and trust income in the CPS-ASEC series, whose value was 66 percent of the scope-adjusted NIPA value of \$111.1 billion in 2010. The NIPA value for the imputed rental income of owner-occupied housing, which has no CPS-ASEC counterpart, is derived by subtracting expenses from the gross rental value of housing, including intermediate expenses, property taxes, net interest, and consumption of fixed capital. A match was constructed using data from the CES Interview Survey, including the rental equivalence of owned homes and expenses for insurance, maintenance and repairs, closing costs, mortgage interest, and property taxes. Homeowners' insurance premiums were used as indicators for insurance net of losses and for net insurance settlements, each a part of intermediate expenses in the NIPA estimates.¹⁴ Maintenance and repair expenditures and closing costs, also included in intermediate expenses, were matched exactly, as were property taxes. Mortgage interest reported in the CES was used as an indicator for net interest and for borrower services included in intermediate expenses. Net interest and borrower services sum to mortgage interest paid; in the NIPAs, part of the nominal mortgage interest paid is deemed to be payments for services provided to borrowers. Consumption of fixed capital, with no CES match, used owners' equivalent rent as an indicator.

Income receipts on assets.—This consists of interest income and dividend income. In the NIPAs, interest income includes both monetary interest received and imputed interest received. Monetary interest received differs significantly in its coverage from interest income reported in CPS-ASEC, and imputed interest received has no CPS-ASEC counterpart. Dividend income has significant coverage differences as well. Coverage differences exist because interest and

¹⁴ Net insurance settlements measures the difference between actual and expected losses.

dividends reported in CPS-ASEC are those received directly by households, while in the NIPAs, monetary interest and dividends received includes interest and dividends received by entities holding household assets as well as those received directly by households. These entities include pension plans, collective investment funds, and fiduciaries. Because household interest and dividend income in the NIPAs is estimated as a residual, and because only interest received by publicly administered government employees retirement plans is reported separately, separately identifying interest and dividends received by entities holding household assets from income received directly by households is difficult. For this study, only interest received by employer-sponsored pension plans (for government and private employees) is estimated separately. The remaining interest income is matched to CPS-ASEC interest, and all of NIPA dividends are matched to CPS-ASEC dividends. Clearly, the remaining interest differences and the dividend differences reflect differences in coverage as well as differences in estimates of interest and dividends received directly by households. For publicly administered government employees pension plans and for other (almost entirely private) employer-sponsored pension plans, the indicators used are the wages and salaries of government workers and of private workers participating in pension plans, respectively.

Imputed interest is received from banks and other depository institutions, from regulated investment companies (RICs), from life insurance carriers, and from property-casualty insurance companies. Indicators are used in all instances. For depository institutions, interest is distributed using the value of savings and checking accounts held by consumer units from the CES. For RICs, interest received by private pension plans uses the wages and salaries of private employee pension plan participants from CPS-ASEC, while for other interest received from private pension funds, the market value of all securities held from the CES is used. For imputed interest received from life insurance carriers, premiums for life, endowment, annuities, and other insurance policies providing death benefits from the CES Interview Survey are used. For property-casualty insurance companies, the indicator is vehicle insurance and homeowners' insurance premiums from the CES Interview Survey.

Government social benefits.—Scope-adjusted government social benefits in the NIPAs were \$1904.3 billion in 2010. Of this amount, 56 percent or \$1066.7 billion were cash benefits, 39 percent (\$749.4 billion) were in-kind benefits, and 5 percent (\$88.2 billion) were a combination of cash and in-kind benefits. Almost all of the cash benefits were matched to CPS-ASEC variables, including Social Security, railroad retirement, unemployment insurance, Supplemental Security Income, refundable tax credits, temporary disability insurance, family and general assistance, and veterans' pensions and disability. For in-kind benefits, the largest of these are Medicare and Medicaid, which were matched to the "person market value" of each of these

programs in CPS-ASEC, which measures the average government cost per recipient and is akin to the insurance cost of coverage. The CPS-ASEC value of Supplemental Nutrition Assistance Program (SNAP)—formerly known as food stamps—is matched to the NIPA value. For other in-kind social benefits, including energy assistance, other state and local medical care, Women’s Infants and Children’s (WIC) food benefits, and dependent and retiree military medical insurance, benefits were distributed using the numbers of participants by household. Government social benefits which are a combination of cash and in-kind benefits, including veterans’ education and training benefits, workers’ compensation, and educational assistance, were matched to the cash benefits in CPS-ASEC. In the case of workers’ compensation, the match is furthered weakened because workers’ compensation in CPS-ASEC includes both public workers’ compensation and private workers’ compensation insurance, while the government social benefits cover only the public programs.

Other government current transfer receipts.—These include receipts from business and from NPISHs, and alimony and child support payments from other households. Receipts from business have no counterpart in CPS-ASEC. Insurance reimbursements from the CES for stolen or total loss vehicles were used as an indicator, though the link is weak, in that payments from commercial motor vehicle policies are only a portion of the transfer receipts from business, and reimbursements reported in the CES are probably overwhelmingly from private passenger policies rather than from commercial policies. Current transfer receipts from business were \$24.2 billion in 2010, 0.2 percent of total household income. For current transfer receipts from NPISHs, the matched CPS-ASEC series was private educational assistance, though this is only a partial match, since transfers from educational institutions account for only part of receipts from NPISHs. Receipts from NPISHs were \$78.9 billion in 2010, 0.7 percent of total household income. For alimony and child support, the CPS-ASEC values were used directly, and equaled \$31.4 billion in 2010, 0.3 percent of household income.

Less: Contributions for government social insurance, domestic.—The employer contributions are the same as for compensation of employees. Payroll taxes from CPS-ASEC, used for the employer contributions match, are nearly an exact match for the NIPA employee contributions, with FICA contributions accounting for 98 percent of the \$408.9 billion in 2010. The indicator used for self-employed contributions is CPS-ASEC farm and nonfarm income self-employment income. For contributions for Medicare supplementary medical insurance, CES values Medicare payment and Medicare Prescription Drug premiums were matched to the NIPA values.

Less: Household current taxes.—For federal income taxes and for state and local income taxes, CPS-ASEC taxes before credits were matched to the NIPA values. For motor vehicle licenses,

CES values for state and local registration and for drivers licenses were matched to the NIPA values. For other taxes, including hunting, fishing, and other personal licenses, fees for participant sports were used as the indicator, though the link is weak, in that sporting licenses are a relatively small part of the overall fees for participant sports.

See Technical Appendix ____ for full detail on the matches and indicators for the disposable household income series.

Household Consumption Expenditures

For the great majority of direct household expenditures, near or exact matches from the CES data were made. For a number of HCE categories, in order to align expenditures with the CES values, adjustments had to be made to account for expenditures by residents while out of the country and to exclude expenditures by nonresidents traveling in the U.S. This was done primarily using data from the U.S. Travel and Tourism Satellite Accounts.

Imputed rental value of owner-occupied housing.--The CES rental equivalence of owned dwellings is an exact match.

Health care.--For health benefits paid by employer-paid health insurance, CPS-ASEC values for employer contributions for health insurance were used as indicators. For health benefits paid by employee and self-paid insurance, the CES values for health insurance premiums paid were used as indicators. For Medicare, Medicaid, and other state and local medical care, the CPS-ASEC values were used as indicators.

Motor vehicles and recreational vehicles.--Sales were netted from CES values and trade-in values were added to net expenditures to align them with NIPA values.

Motor vehicle maintenance and repair.--NIPA values were disaggregated into motor vehicle body repair and other motor vehicle maintenance and repair. CES motor vehicle insurance premiums were used as the indicator for motor vehicle body repair, while CES expenditures for motor vehicle maintenance and repair were matched to the other motor vehicle maintenance and repair.

Post-secondary education.--This includes higher education and commercial and vocational schools. The CPS-ASEC values used for government social benefits were matched to the portion of the NIPA expenditures financed by government. CES values for tuition expenditures were matched to the remaining NIPA expenditures.

Financial services.—This category has no CES matches, so indicators from CPS or CES were used in all instances. For financial services furnished without payment by depository institutions and by regulated investment companies, the indicators are the values of deposits and of securities holdings, the same indicators used for imputed interest income in household income. For pension fund expenses, wages and salaries of those participating in employer-sponsored pension plans was used, the same indicator as that used for employer contributions to pension plans in household income. For financial service charges and fees, an indicator consisting of safe deposit box rental, checking account fees, credit card membership fees, and finance charges excluding mortgages and vehicles—which includes late charges—from the CES was used. For securities commissions, an indicator consisting of the sum of the purchase price of securities including brokerage fees and the sale price of securities net of brokerage fees from the CES was used as an indicator. For portfolio management, investment advice, trust, fiduciary, and custody activities, the market value of all securities held was used as an indicator.

Insurance.—For life insurance, which is measured by the expenses of insurers in the NIPAs, premiums for life, endowment, annuities, and other insurance policies providing death benefits from the CES were used as an indicator. Household insurance, which is insurance on household contents and is net of losses, was disaggregated into two parts: net tenants' insurance and net homeowners' insurance on household contents. Premiums for tenants' insurance from the CES were used as the indicator for the former, and premiums for homeowners insurance were used for the latter; coverage for household contents is generally a portion of homeowners insurance. Medical care and hospitalization insurance, which is measured as premiums net of benefits, was disaggregated into five parts: employer-paid insurance, employee and self-paid insurance, Medicare, Medicaid, and other state and local medical care. Employer-paid premiums from CPS-ASEC was used as the indicator for employer-paid insurance, and CES health insurance premiums (excluding Medicare supplement premiums) were used as the indicator for employee and self-paid insurance. The personal market values of Medicare and of Medicaid from CPS-ASEC were used as indicators for the respective parts of medical and hospitalization insurance, and the indicator for other state and local medical insurance was the number of children by household enrolled in the SCHIP program from CPS-ASEC. For income loss insurance for private workers' compensation, wages and private wages, respectively, from CPS-ASEC were used as indicators. For motor vehicle insurance, premiums for auto insurance and auto repair service policies were used as an indicator.

Social services and religious activities.—For child care, CES other expenses for day care centers and nursery schools, including tuition, and expenditures for babysitting and child care were used as an indicator. This is considered an indicator because nursery school expenditures are

classified with education expenditures. Social assistance was broken down into Medicare, Medicaid, other state and local medical care, and out-of-pocket and other expenditures. The person market values for Medicare and Medicaid from CPS-ASEC were used as indicators for the respective components, and the number of children by household enrolled in the SCHIP program from CPS-ASEC used as the indicator of other state and local medical care. The remaining social assistance expenditures and expenditures for social advocacy and civic and social organizations, religious organizations, and foundations and grantmaking and giving services were distributed evenly to all households because of the lack of indicators. These expenditures equaled \$68.1 billion in 2010, 0.7 percent of household consumption expenditures.

Professional and other sources.—Wages and salaries from CPS-ASEC were used as an indicator for two series: employment agency services and professional association dues. Expenditures for these categories were less than 0.1 percent of HCE in 2010. Labor organization dues were distributed using labor union members by households.

Other household outlays

Non-mortgage interest payments from the CES are the indicators for both monetary interest paid and imputed interest paid, which is a negative value which removes borrower services from monetary interest. For transfers to government, which consists largely of gifts such as those to higher education institutions, the CES indicator is cash contributions to educational institutions. This is a somewhat weak indicator, in that the CES value includes gifts to private educational institutions, and household current transfers includes other items, such as fines. The CES indicator for household transfer payments to the rest of the world is the CES series other cash gifts. The indicator for transfers to NPISHs is the combination of CES cash contributions to religious organizations, charities, educational institutions, and political organizations. CES alimony and child support expenditures are used directly.

5. Household Breakdowns

The CPS and CES data are used to break down the scope-adjusted household income and outlays values along three dimensions:

- Household type
- Main source of income
- Quintiles of disposable income

Households are divided into the following types:

- Single up to 65
- Single greater than 65
- Single with children under 18
- Two adults up to 65
- Two adults with at least one greater than 65
- Two adults with children under 18
- Other household types

The “other” household type includes children 18 or older living with parents.

The main sources of income distinguished are:

- Employee compensation
- Self-employment income
- Property income
- Transfers and other income

Property income includes rental income, interest, and dividends. Transfers and other income include government social benefits and transfers from NPISHs, businesses, and other households.

Household disposable income is broken down into quintiles equivalized to account for differences in household size and composition. It uses the Oxford (sometimes called the OECD) modified scale, in which a weight of 1.0 is given for the household head, a weight of 0.5 for each additional adult household member, and a weight of 0.3 for each child. The weighting reflects how households share resources and take advantage of economies of scale. It has similarities to the three-parameter scale used to produce equivalence-adjusted income in CPS-ASEC.

For each type of household breakdown, income shares by primary source of income are broken down as follows:

- Earned income
- Property income
- Government social benefits and other transfers

Earned income combines employee compensation and self-employment income and nets out employer, employee, and self-employed contributions for government social insurance.

Government social benefits and other transfers equal transfers and other income less contributions for Medicare supplementary medical insurance.

6. Results

Income Quintiles

The share of disposable household income accounted for by the lowest quintile increased from 4.9 percent in 2006 to 5.4 percent in 2010, while the share accounted for by the highest quintile decreased from 48.4 percent to 47.1 percent the shares accounted for by the other quintiles showed little change (Table 2). For all income groups during this period, there was a significant increase in the share of income accounted for by government social benefits and other transfers, and corresponding decreases in the shares accounted for by earned income and property income. The shift in sources of income was especially pronounced for the three lowest quintiles. In particular, the share of income accounted for by earned income fell by 7.7 percentage points from 2006 to 2010, and the share accounted for by government social benefits and other transfers increased by 8.4 percentage points.

The share of disposable household income accounted for by earned income increased from the lowest quintile through the 4th quintile, where it accounted for 74.0 percent of household income, while the earned income share of the highest quintile was slightly lower at 69.1 percent. The shares of household income accounted for by transfers and by property income move in opposite directions, with the share accounted for by transfers falling progressively through the income quintiles to a low of 7.0 percent for the highest quintile. Property income shares rise with income, ranging from 2.5 percent for the lowest quintile to 23.9 percent for the highest quintile.

The consumption shares by income quintile show much less dispersion than does income (Table 3). Mean expenditures per household for the highest quintile were a bit more than twice as high for the top quintile as for the lowest quintile, versus a disposable household income of nearly 9 to 1. The largest differences in consumption between the lowest and highest quintiles were for education and for financial services and insurance. Within quintiles, the shares of expenditures accounted for by food, clothing, and housing and utilities decreased in moving from the lowest to the highest quintile, while the share accounted for by financial services and insurance increased steadily.

Household Type

The share of disposable household income accounted for by households with children fell by 3.0 percentage points from 2006 to 2010, from 31.1 percent to 28.1 percent (Table 4). Their real mean disposable household income fell, while the mean income of households with at least one member over 65 increased significantly. The earned income shares of disposable household income fell and the government social benefits and other transfers shares rose between 2006 and 2010, and this was true of all of the household groups except for single households over 65. Property income shares of income fell for all household types except two adults with children between 2006 and 2010.

Mean expenditures were highest for households with two adults and at least one more than 65, followed by households with two adults and children (Table 5). The consumption shares accounted for by health expenditures were highest for households with at least one members older than 65. These household types also had the highest shares of consumption accounted for by housing, utilities, and fuels and by financial services and insurance.

Main Source of Income

The share of income accounted for by households in which government social benefits and other transfers were the main source of income increased by 3.3 percentage points between 2006 and 2010, to 12.8 percent, while the income shares accounted for by households whose main source of income was earned income and property each fell (Table 6). Real mean disposable household income fell between 2006 and 2010 for households where self-employment income was the largest source, while it rose for each of the other groups, including a 13.0 percent increase for households whose main source of income was property income.

Mean consumption expenditures were highest for households where property income was the main source of income, and lowest for those whose principal source as government social benefits and other transfers (Table 7). Expenditures for the transfers group exceeded their disposable income, while the opposite was true for all other groups. A disproportionate share of health expenditures were accounted for by the group whose primary source was government social benefits and other transfers, and for this group, health expenditures were the highest share of consumption. For this group, 82.2 percent of their health expenditures were accounted for by

in-kind government social benefits, including Medicare, Medicaid, State Children's Health Insurance Program (SCHIP), and other state and local medical care.

7. Issues and Future Directions

--to be added

Table 1. Scope Adjustments to Household Income and Outlays by Type and Component			
(Billions of dollars)			
	2010		
Label	Published #	Scope Adjustments	Scope-Adjusted
Household income	12,400.1	443.0	11,957.1
Compensation of employees, received	7,971.4	80.7	7,890.6
Proprietors' income with inventory valuation and capital consumption adjustments	1,036.4	9.2	1,027.2
Rental income of households with capital consumption adjustment	343.6	7.4	336.2
Household income receipts on assets	1,678.4	37.1	1,641.3
Household current transfer receipts	2,357.2	318.5	2,038.7
Government social benefits	2,221.1	316.8	1,904.3
Other household current transfer receipts	136.1	1.7	134.5
Less: Contributions for government social insurance, domestic	986.8	9.8	977.0
Less: Household current taxes	1,193.9	41.6	1,152.2
Equals: Disposable household income	11,206.3	401.4	10,804.9
Less: Household outlays	10,547.9	345.3	10,202.5
Household consumption expenditures	9,965.3	326.1	9,639.2
Household interest payments	173.4	6.2	167.2
Household transfer payments	409.2	13.0	396.2
Equals: Household saving	658.4	56.1	602.3
Household saving as a percentage of household disposable income	5.9%	-	5.6%
Scope Adjustments to Household Income	—	443.0	—
Institutionalized	—	162.0	—
Decedents	—	249.0	—
Residence	—	16.0	—
Domestic military on post	—	16.0	—
# Differs from values published in NIPA Table 2.9 by amount of alimony and child support received (income) and paid (outlays)			

Table 2. Income Quintiles				
(Billions of dollars)				
	2006	2010	Change	
Shares of Disposable Household Income of Quintiles				
Lowest	4.9	5.4	0.5	
Second	10.1	10.5	0.4	
Third	14.8	15.0	0.2	
Fourth	21.8	22.0	0.2	
Highest	48.4	47.1	(1.3)	
Mean Disposable Household Income of Quintiles				
Lowest	20110	24424	4,314	
Second	41798	47742	5,944	
Third	61345	68254	6,910	
Fourth	90253	100193	9,940	
Highest	200521	214330	13,810	
Mean Disposable Household Income of Quintiles in 2010 Dollars				
Lowest	21,808	24424	2,616	
Second	45,328	47742	2,414	
Third	66,525	68254	1,729	
Fourth	97,874	100193	2,318	
Highest	217,454	214330	(3,124)	
Overall	89798	92989	3,191	
Earned income shares by quintile				
Lowest	59.6	51.8	(7.7)	
Second	60.6	53.7	(6.8)	
Third	69.5	63.0	(6.4)	
Fourth	77.1	74.0	(3.1)	
Highest	70.1	69.1	(1.0)	
Overall	70.1	66.9	(3.2)	
Property income share by quintile				
Lowest	3.2	2.5	(0.7)	
Second	7.8	7.4	(0.4)	
Third	10.2	9.7	(0.5)	
Fourth	12.4	12.1	(0.3)	
Highest	24.5	23.9	(0.6)	
Overall	17.2	16.5	(0.6)	
Government social benefits/other transfers share by quintile				
Lowest	37.2	45.6	8.4	
Second	31.7	38.9	7.3	
Third	20.3	27.2	6.9	
Fourth	10.5	14.0	3.4	
Highest	5.4	7.0	1.5	
Overall	12.7	16.6	3.8	
# Differs from values published in NIPA Table 2.9 by amount of alimony and child support received (income) and paid (outlays)				

Table 3. Household Consumption Expenditures by Quintiles						
	2010					
	Lowest	Second	Third	Fourth	Highest	Overall
	(Billions of dollars)					
Total	1354.8	1567.7	1824.4	2139.8	2752.5	9639.2
Food and beverages purchased for off-premises consumption	140.8	146.1	141.9	157.5	170.1	756.5
Clothing, footwear, and related services	61.8	62.4	61.0	64.6	95.6	345.5
Housing, utilities, and fuels	286.4	329.4	376.2	427.1	487.6	1906.6
Furnishings, household equipment, and routine household maintenance	58.3	61.1	70.7	94.1	126.9	411.1
Health	198.4	333.3	391.5	403.4	443.7	1770.3
Transportation	139.2	157.9	189.8	245.0	268.7	1000.6
Communication	39.3	45.3	47.4	52.1	51.3	235.4
Recreation	146.5	128.8	155.2	211.7	261.9	904.1
Education	25.5	19.1	27.7	49.0	126.1	247.4
Food services and accommodations	83.8	87.6	106.8	135.1	197.4	610.6
Financial services and insurance	66.6	83.1	117.0	156.8	353.0	776.5
Other goods and services	108.2	113.7	139.2	143.4	170.1	674.6
	Mean expenditures per household					
Total	57049	66004	76822	90097	115893	81173
Food and beverages purchased for off-premises consumption	5930	6152	5977	6632	7161	6371
Clothing, footwear, and related services	2603	2628	2571	2718	4027	2909
Housing, utilities, and fuels	12060	13867	15840	17982	20529	16056
Furnishings, household equipment, and routine household maintenance	2454	2571	2978	3963	5343	3462
Health	8352	14034	16486	16985	18682	14908
Transportation	5862	6647	7993	10316	11314	8427
Communication	1655	1909	1996	2192	2161	1983
Recreation	6169	5424	6534	8914	11027	7614
Education	1074	803	1166	2064	5309	2083
Food services and accommodations	3530	3687	4496	5689	8310	5142
Financial services and insurance	2806	3497	4925	6602	14865	6539
Other goods and services	4555	4786	5861	6040	7163	5681
	Share of consumption by quintile					
Total	14.1	16.3	18.9	22.2	28.6	100.0
Food and beverages purchased for off-premises consumption	18.6	19.3	18.8	20.8	22.5	100.0
Clothing, footwear, and related services	17.9	18.1	17.7	18.7	27.7	100.0
Housing, utilities, and fuels	15.0	17.3	19.7	22.4	25.6	100.0
Furnishings, household equipment, and routine household maintenance	14.2	14.9	17.2	22.9	30.9	100.0
Health	11.2	18.8	22.1	22.8	25.1	100.0
Transportation	13.9	15.8	19.0	24.5	26.9	100.0
Communication	16.7	19.3	20.1	22.1	21.8	100.0
Recreation	16.2	14.2	17.2	23.4	29.0	100.0
Education	10.3	7.7	11.2	19.8	51.0	100.0
Food services and accommodations	13.7	14.3	17.5	22.1	32.3	100.0
Financial services and insurance	8.6	10.7	15.1	20.2	45.5	100.0
Other goods and services	16.0	16.9	20.6	21.3	25.2	100.0
	Consumption shares within quintiles					
Total	100.0	100.0	100.0	100.0	100.0	100.0
Food and beverages purchased for off-premises consumption	10.4	9.3	7.8	7.4	6.2	7.8
Clothing, footwear, and related services	4.6	4.0	3.3	3.0	3.5	3.6
Housing, utilities, and fuels	21.1	21.0	20.6	20.0	17.7	19.8
Furnishings, household equipment, and routine household maintenance	4.3	3.9	3.9	4.4	4.6	4.3
Health	14.6	21.3	21.5	18.9	16.1	18.4
Transportation	10.3	10.1	10.4	11.4	9.8	10.4
Communication	2.9	2.9	2.6	2.4	1.9	2.4
Recreation	10.8	8.2	8.5	9.9	9.5	9.4
Education	1.9	1.2	1.5	2.3	4.6	2.6
Food services and accommodations	6.2	5.6	5.9	6.3	7.2	6.3
Financial services and insurance	4.9	5.3	6.4	7.3	12.8	8.1
Other goods and services	8.0	7.3	7.6	6.7	6.2	7.0

Table 4. Disposable Household Income by Household Type			
(Billions of dollars)			
	2006	2010	Change
Shares of Disposable Household Income			
Single up to 65	10.3	10.4	0.1
Single older than 65	4.3	4.8	0.5
Single w/ children	3.4	3.1	(0.3)
Two adults up to 65	24.0	24.6	0.6
Two adults at least one more than 65	9.3	9.6	0.3
Two adults w/ children	27.7	25.0	(2.7)
Other	21.0	22.4	1.4
Mean Disposable Household Income			
Single up to 65	48774	52616	3,841
Single older than 65	36605	46105	9,500
Single w/ children	48704	51993	3,288
Two adults up to 65	92202	101771	9,570
Two adults at least one more than 65	81665	99932	18,267
Two adults w/ children	106256	112817	6,562
Other	113297	127091	13,794
Overall	82805	90989	8,184
Mean Disposable Household Income in 2010 Dollars			
Single up to 65	52,893	52616	(277)
Single older than 65	39,696	46105	6,408
Single w/ children	52,817	51993	(825)
Two adults up to 65	99,988	101771	1,783
Two adults at least one more than 65	88,561	99932	11,370
Two adults w/ children	115,229	112817	(2,411)
Other	122,864	127091	4,227
Overall	89,798	90989	1,192
Earned income shares of total disposable household income			
Single up to 65	74.5	72.7	(1.8)
Single older than 65	10.9	13.6	2.7
Single w/ children	65.0	58.2	(6.8)
Two adults up to 65	76.2	74.8	(1.3)
Two adults at least one more than 65	24.9	22.9	(2.1)
Two adults w/ children	83.1	79.4	(3.7)
Other	75.5	71.5	(4.0)
Overall	70.1	66.9	(3.2)
Property income share by quintile			
Single up to 65	16.0	14.1	(2.0)
Single older than 65	39.5	37.7	(1.8)
Single w/ children	7.7	7.0	(0.7)
Two adults up to 65	17.3	14.9	(2.5)
Two adults at least one more than 65	39.7	39.6	(0.1)
Two adults w/ children	10.8	11.4	0.5
Other	13.2	12.7	(0.5)
Overall	17.2	16.5	(0.6)
Government social benefits/other transfers share by quintile			
Single up to 65	9.5	13.2	3.7
Single older than 65	49.6	48.7	(0.9)
Single w/ children	27.3	34.8	7.5
Two adults up to 65	6.5	10.3	3.8
Two adults at least one more than 65	35.4	37.6	2.2
Two adults w/ children	6.1	9.2	3.1
Other	11.3	15.7	4.4
Overall	12.7	16.6	3.8

Table 5. Household Consumption Expenditures by Household Type									
	2010								
	Single	Single	Single	Two	Two	Two	Other	Overall	
	(Billions of dollars)								
Total	1200.9	517.0	339.7	1857.2	1018.3	2182.2	1658.0	8773.3	
Food and beverages purchased for off-premises consumption	68.9	32.8	26.6	137.1	71.7	179.2	149.2	665.5	
Clothing, footwear, and related services	35.1	10.5	19.1	69.1	27.8	108.1	69.4	339.0	
Housing, utilities, and fuels	236.0	126.0	65.3	346.1	211.6	393.9	319.6	1698.5	
Furnishings, household equipment, and routine household	48.1	23.8	14.4	98.5	57.1	115.1	77.4	434.4	
Health	202.8	127.7	62.4	287.6	193.8	329.3	258.6	1462.3	
Transportation	125.5	34.3	40.8	246.1	99.5	280.6	213.2	1040.1	
Communication	26.6	12.0	9.9	42.6	23.0	47.8	43.3	205.1	
Recreation	144.3	35.8	32.2	175.9	93.9	229.7	146.6	858.4	
Education	30.0	3.1	4.4	41.2	4.0	52.4	57.9	193.1	
Food services and accommodations	86.2	20.6	16.3	131.8	51.7	134.4	103.1	544.0	
Financial services and insurance	98.5	58.3	18.1	165.0	121.7	152.9	114.5	729.0	
Other goods and services	99.1	32.2	30.2	116.0	62.6	158.6	105.2	603.8	
	Mean expenditures per household								
Total	56000	45692	52327	70969	98063	91212	87169	73881	
Food and beverages purchased for off-premises consumption	3214	2901	4092	5240	6908	7489	7843	5604	
Clothing, footwear, and related services	1635	924	2935	2642	2672	4520	3651	2855	
Housing, utilities, and fuels	11004	11136	10056	13225	20378	16465	16803	14303	
Furnishings, household equipment, and routine household	2245	2102	2213	3763	5500	4813	4067	3658	
Health	9454	11289	9618	10992	18659	13765	13598	12314	
Transportation	5851	3031	6291	9406	9583	11729	11208	8759	
Communication	1242	1057	1526	1626	2214	1997	2276	1727	
Recreation	6728	3162	4964	6721	9043	9603	7709	7229	
Education	1398	273	685	1576	387	2192	3046	1627	
Food services and accommodations	4018	1817	2508	5037	4977	5617	5419	4581	
Financial services and insurance	4591	5153	2791	6307	11716	6391	6019	6139	
Other goods and services	4619	2847	4648	4433	6026	6631	5530	5085	
	Share of consumption by household type								
Total	13.7	5.9	3.9	21.2	11.6	24.9	18.9	100.0	
Food and beverages purchased for off-premises consumption	10.4	4.9	4.0	20.6	10.8	26.9	22.4	100.0	
Clothing, footwear, and related services	10.3	3.1	5.6	20.4	8.2	31.9	20.5	100.0	
Housing, utilities, and fuels	13.9	7.4	3.8	20.4	12.5	23.2	18.8	100.0	
Furnishings, household equipment, and routine household	11.1	5.5	3.3	22.7	13.1	26.5	17.8	100.0	
Health	13.9	8.7	4.3	19.7	13.3	22.5	17.7	100.0	
Transportation	12.1	3.3	3.9	23.7	9.6	27.0	20.5	100.0	
Communication	13.0	5.8	4.8	20.7	11.2	23.3	21.1	100.0	
Recreation	16.8	4.2	3.8	20.5	10.9	26.8	17.1	100.0	
Education	15.5	1.6	2.3	21.4	2.1	27.2	30.0	100.0	
Food services and accommodations	15.8	3.8	3.0	24.2	9.5	24.7	18.9	100.0	
Financial services and insurance	13.5	8.0	2.5	22.6	16.7	21.0	15.7	100.0	
Other goods and services	16.4	5.3	5.0	19.2	10.4	26.3	17.4	100.0	
	Consumption shares for each household type								
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Food and beverages purchased for off-premises consumption	5.7	6.3	7.8	7.4	7.0	8.2	9.0	7.6	
Clothing, footwear, and related services	2.9	2.0	5.6	3.7	2.7	5.0	4.2	3.9	
Housing, utilities, and fuels	19.7	24.4	19.2	18.6	20.8	18.1	19.3	19.4	
Furnishings, household equipment, and routine household	4.0	4.6	4.2	5.3	5.6	5.3	4.7	5.0	
Health	16.9	24.7	18.4	15.5	19.0	15.1	15.6	16.7	
Transportation	10.4	6.6	12.0	13.3	9.8	12.9	12.9	11.9	
Communication	2.2	2.3	2.9	2.3	2.3	2.2	2.6	2.3	
Recreation	12.0	6.9	9.5	9.5	9.2	10.5	8.8	9.8	
Education	2.5	0.6	1.3	2.2	0.4	2.4	3.5	2.2	
Food services and accommodations	7.2	4.0	4.8	7.1	5.1	6.2	6.2	6.2	
Financial services and insurance	8.2	11.3	5.3	8.9	11.9	7.0	6.9	8.3	
Other goods and services	8.2	6.2	8.9	6.2	6.1	7.3	6.3	6.9	

Table 6. Household Income by Main Source of Income			
(Billions of dollars)			
	2006	2010	Change
Shares of Household Income			
Compensation of employees	68.3	67.6	(0.6)
Self-employment income	11.1	9.0	(2.1)
Property Income	11.1	10.5	(0.6)
Transfers and other	9.6	12.8	3.3
Mean Disposable Household Income			
Compensation of employees	84737	96189	11,452
Self-employment income	182491	189606	7,115
Property Income	129638	158862	29,223
Transfers and other	38472	46853	8,381
Overall	82805	90989	8,184
Mean Disposable Household Income in 2010 Dollars			
Compensation of employees	91,893	96189	4,296
Self-employment income	197,902	189606	(8,296)
Property Income	140,586	158862	18,276
Transfers and other	41,721	46853	5,133
Overall	89,798	90989	1,191

Table 7. Household Consumption Expenditures by Main Source of Income					
	2010				
	Compensation of employees	Self-employment income	Property Income	Transfers and other	Total
	(Billions of dollars)				
Total	6665.4	365.1	690.0	1918.7	9639.2
Food and beverages purchased for off-premises consumption	535.6	30.4	40.0	150.5	756.5
Clothing, footwear, and related services	264.0	15.8	16.1	49.5	345.5
Housing, utilities, and fuels	1337.0	68.9	135.7	365.0	1906.6
Furnishings, household equipment, and routine household maintenance	290.6	16.4	35.1	68.9	411.1
Health	1061.7	62.3	117.2	529.2	1770.3
Transportation	762.6	35.6	59.6	142.8	1000.6
Communication	173.3	7.7	12.8	41.6	235.4
Recreation	646.4	38.3	55.0	164.4	904.1
Education	168.2	8.6	7.3	63.3	247.4
Food services and accommodations	469.9	21.5	38.2	81.0	610.6
Financial services and insurance	483.9	29.8	135.9	127.0	776.5
Other goods and services	472.2	29.7	37.1	135.6	674.6
	Mean expenditures per household				
Total	90056	68635	93095	59952	81173
Food and beverages purchased for off-premises consumption	7237	5720	5394	4702	6371
Clothing, footwear, and related services	3567	2979	2177	1546	2909
Housing, utilities, and fuels	18064	12957	18307	11404	16056
Furnishings, household equipment, and routine household maintenance	3926	3092	4742	2153	3462
Health	14345	11704	15808	16535	14908
Transportation	10304	6690	8044	4462	8427
Communication	2342	1456	1724	1299	1983
Recreation	8734	7191	7424	5136	7614
Education	2272	1609	989	1979	2083
Food services and accommodations	6349	4046	5155	2531	5142
Financial services and insurance	6537	5601	18329	3967	6539
Other goods and services	6380	5589	5003	4237	5681
	Share of consumption by main source of income				
Total	69.1	3.8	7.2	19.9	100.0
Food and beverages purchased for off-premises consumption	70.8	4.0	5.3	19.9	100.0
Clothing, footwear, and related services	76.4	4.6	4.7	14.3	100.0
Housing, utilities, and fuels	70.1	3.6	7.1	19.1	100.0
Furnishings, household equipment, and routine household maintenance	70.7	4.0	8.6	16.8	100.0
Health	60.0	3.5	6.6	29.9	100.0
Transportation	76.2	3.6	6.0	14.3	100.0
Communication	73.6	3.3	5.4	17.7	100.0
Recreation	71.5	4.2	6.1	18.2	100.0
Education	68.0	3.5	3.0	25.6	100.0
Food services and accommodations	77.0	3.5	6.3	13.3	100.0
Financial services and insurance	62.3	3.8	17.5	16.4	100.0
Other goods and services	70.0	4.4	5.5	20.1	100.0
	Consumption shares for each main source of income type				
Total	100.0	100.0	100.0	100.0	100.0
Food and beverages purchased for off-premises consumption	8.0	8.3	5.8	7.8	7.8
Clothing, footwear, and related services	4.0	4.3	2.3	2.6	3.6
Housing, utilities, and fuels	20.1	18.9	19.7	19.0	19.8
Furnishings, household equipment, and routine household maintenance	4.4	4.5	5.1	3.6	4.3
Health	15.9	17.1	17.0	27.6	18.4
Transportation	11.4	9.7	8.6	7.4	10.4
Communication	2.6	2.1	1.9	2.2	2.4
Recreation	9.7	10.5	8.0	8.6	9.4
Education	2.5	2.3	1.1	3.3	2.6
Food services and accommodations	7.0	5.9	5.5	4.2	6.3
Financial services and insurance	7.3	8.2	19.7	6.6	8.1
Other goods and services	7.1	8.1	5.4	7.1	7.0

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