



Comparison of Estimates from the Consumer Expenditure Survey (CE) with Other Data: CE Imputed Income with Current Population Survey (CPS)

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Outline



CE – CPS Income Comparison

- Imputation in the CE
- Methodological Differences between CE and CPS
 - Population Coverage
 - Timing of Data Collection
 - Coverage of Questions
 - Design of Questions
- Concordance of Income Items
- Selection of CE Estimators
- Analysis by Source of Income



Imputation in the CE

No imputation for income nonresponse through 2003 and sample consumer units (CU's) identified as “complete” or “incomplete” income reporters in data releases.

Paulin and Ferraro (1994) – examined issues related to selection of imputation method

- Model-based method or hot deck method
- Imputation at CU level or individual member level
- Imputation for total income or for each component
- Inclusion of expenditures in models for predicting income

Bracketing questions added to income questions in survey instrument in 2001 impact choice of imputation method.

Imputation in the CE – cont.



Regression-based method chosen

- Produces five imputed values for each missing observation
- Coefficients obtained from regression model
- Random noise added to coefficients
- Imputed value is estimated
- Additional noise added to insure CU's with similar characteristics receive different imputed income estimates
- If bracketed value originally reported, imputed values must fall within bracket
- Reported specific values are retained as is



Methodological Differences - CE and CPS

Population coverage

- CE designed to represent civilian noninstitutional population, plus portion of institutional population, including:
 - Boarding houses
 - College dormitories
 - Permanent living quarters in hotels & motels
 - Mobile home parks
- CE excludes military personnel living on base
- CPS designed to represent civilian noninstitutional population, plus military personnel who live with at least one other civilian adult



Methodological Differences - CE and CPS

Timing of data collection

➤ CE – Quarterly Interview Survey

- Income collected at 2nd and 5th interviews
- Income questions cover 12 months prior to interview month
- CU's enter (and leave) survey every month due to rotating sample design
- As an example:
 - A CU entering survey (1st interview) in November 2008 will have 2nd interview in February 2009.
 - CU will report income at 2nd interview covering 12-month period from February 1, 2008 through January 31, 2009



Methodological Differences - CE and CPS - cont.

Timing of data collection – cont.

- CPS – Annual Social and Economic Supplement
 - Income collected annually each March (some collected in February and April)
 - Income questions cover prior calendar year
 - As an example, a household completing ASEC in March 2008 reports income for calendar year 2007.



Methodological Differences - CE and CPS - cont.

Coverage of Questions

➤ CE – Quarterly Interview Survey

- Respondent instructed to report amount received from earned income, Social Security/Railroad Retirement, and Supplemental Security Income for each member of the CU 14 and over
- For all remaining sources of income, respondent reports amount received by the CU as a whole
- Respondent is asked to about the amount received over the last 12 months for each source of income with one exception
- For Social Security/Railroad Retirement, respondent reports the amount of the last payment received



Methodological Differences - CE and CPS - cont.

Coverage of Questions – cont.

- CE – Quarterly Interview Survey – cont.
 - If respondent cannot report amount of income received, respondent is asked to select an income bracket
- CPS – Annual Social and Economic Supplement
 - Respondent instructed to report income for all income sources for each household member 15 and over
 - For income received on regular basis, such as wages and salaries, respondent first asked the time period over which income amount can be most easily recalled, followed by amount received over that period
 - For other income, respondent first reports an amount received over past year, then time period covered by that amount



Methodological Differences - CE and CPS - cont.

Design of Questions

- Wages and salaries
 - CE asks for amount received for all jobs together
 - CPS asks for amount from longest-held job first, then all other jobs combined
 - CE includes severance pay and military allotments, while CPS collects as part of miscellaneous income at end of instrument
- Nonfarm and farm business income (or loss)
 - CE asks for nonfarm business and farm income separately
 - CPS combines nonfarm and farm business income in one question, but distinguishes longest-held from all other
- Social Security and Railroad Retirement
 - CE collects payments in one question, and includes survivor and disability benefits as well as retirement benefits
 - CPS collects Social Security payments received by household member directly or for child under 19 in household in one question
 - CPS collects Railroad Retirement as portion of three questions on retirement income, survivor benefits, and health/disability benefits



Methodological Differences - CE and CPS - cont.

Design of Questions – cont.

- Interest – CE and CPS questions are similar, however CPS probes for more sources of interest income
- Dividends, royalties, estates and trusts
 - CE asks for amount received from these sources in one question
 - CPS asks for dividends from stocks and mutual funds separately
 - CPS asks for trust and estate income in two places – one as a source for survivor benefits, the other as a class of property income
 - CPS asks for net royalty income as a class of property income
- Pension and annuity income
 - CE asks for amount received, whether due to retirement, disability, or as a survivor benefit in one question
 - As with Railroad Retirement, CPS asks for such income as part of three questions on retirement income, survivor benefits, and health/disability benefits
 - CPS asks for foreign government pension income as a source of miscellaneous income in final income question



Methodological Differences - CE and CPS - cont.

Design of Questions – cont.

- Unemployment compensation
 - CE asks for amount of unemployment compensation and supplemental unemployment compensation in one question
 - CPS asks for amount in three questions – one for state or federal compensation, one for supplemental compensation, and one for union unemployment or strike benefits
- Worker's compensation and Veteran's benefits
 - CE asks respondents to combine income from these sources, excluding retirement benefits from the latter
 - CPS asks for worker's compensation separately, and in association with survivor benefits and health/disability income
 - CPS asks for veteran's benefits in its own question
- Public assistance
 - CE asks for amount received as public assistance or welfare in one question, though examples of sources have changed
 - 2002 – AFDC, grants from Job Corps



Methodological Differences - CE and CPS - cont.

Design of Questions – cont.

➤ Public assistance – cont.

- CE asks for amount received as public assistance or welfare in one question, though examples of sources have changed – cont.
 - Post-2002 – cash assistance from state/local program, such as TANF, or short term emergency help
- CPS asks for cash assistance received from state/local program with name of representative state program as example
- CPS also lists welfare, emergency assistance, and other short-term cash assistance among types of income included in miscellaneous income

➤ Rental income

- CE asks for rental income in two questions – one for income or loss from roomers or boarders, one for income or loss from other rental units
- As part of property income question, CPS also asks for net income from rental property and receipts from roomers or boarders



Methodological Differences - CE and CPS - cont.

Design of Questions – cont.

- Regular income from alimony or other sources, such as persons outside of CU
 - CE asks for amount received from these sources in one question
 - CPS asks for amount in two questions – one from alimony payments, one for regular financial assistance from friends or relatives not in household
- Supplemental Security Income and child support payment (not lump sum)– CE and CPS questions are similar
- All other income (Miscellaneous income)
 - CE asks global other income question, with potential sources as cash scholarships and fellowships, stipends not based on working, and care of foster children
 - All other income from a source not specified in previous questions is to be included in this global question
 - CPS asks for amounts for educational assistance which includes scholarships and grants; some of the assistance reported here, such as from non-household members may be reported elsewhere in CE



Methodological Differences - CE and CPS - cont.

Design of Questions – cont.

- All other income (Miscellaneous income) – cont.
 - CPS asks for amount of foster child care payments and any other income not already covered in previous questions in the miscellaneous income question at end of instrument

Concordance of Income Items



Money Income Before Taxes

- Total aggregate income
 - Wage and salary income
 - Nonfarm self-employment income
 - Farm self-employment income
 - Social Security and Railroad Retirement income
 - Pensions and annuities
 - Interest
 - Dividends, rents, royalties, estates and trusts
 - Child support
 - Supplemental Security Income
 - Unemployment compensation
 - Workers' compensation and veterans' benefits
 - Public assistance
 - All other income, including accident & temporary insurance, educational assistance, alimony, financial assistance

Selection of CE Estimators



CE – Ref Yr.

Estimates are based on income mapped to the reference year in the monthly income tabulation files (ITAB) used for CE publications. Thus, for 2004, estimates are based on income mapped to 2004 in the ITAB files.

CE – Jan Ref Yr. +1

Estimates are based on income reported in interviews 2 and 5 in January of the year following the reference year. Thus, for 2004, estimates are based on income reported in 2nd and 5th interviews conducted in January 2005.

CE – Oct Ref Yr. - Apr Ref Yr. +1

Estimates are based on income reported in interviews 2 and 5 between October of the reference year and April of the year following the reference year. Thus, for 2004, estimates are based on income reported in 2nd and 5th interviews conducted between October 2004 and April 2005.

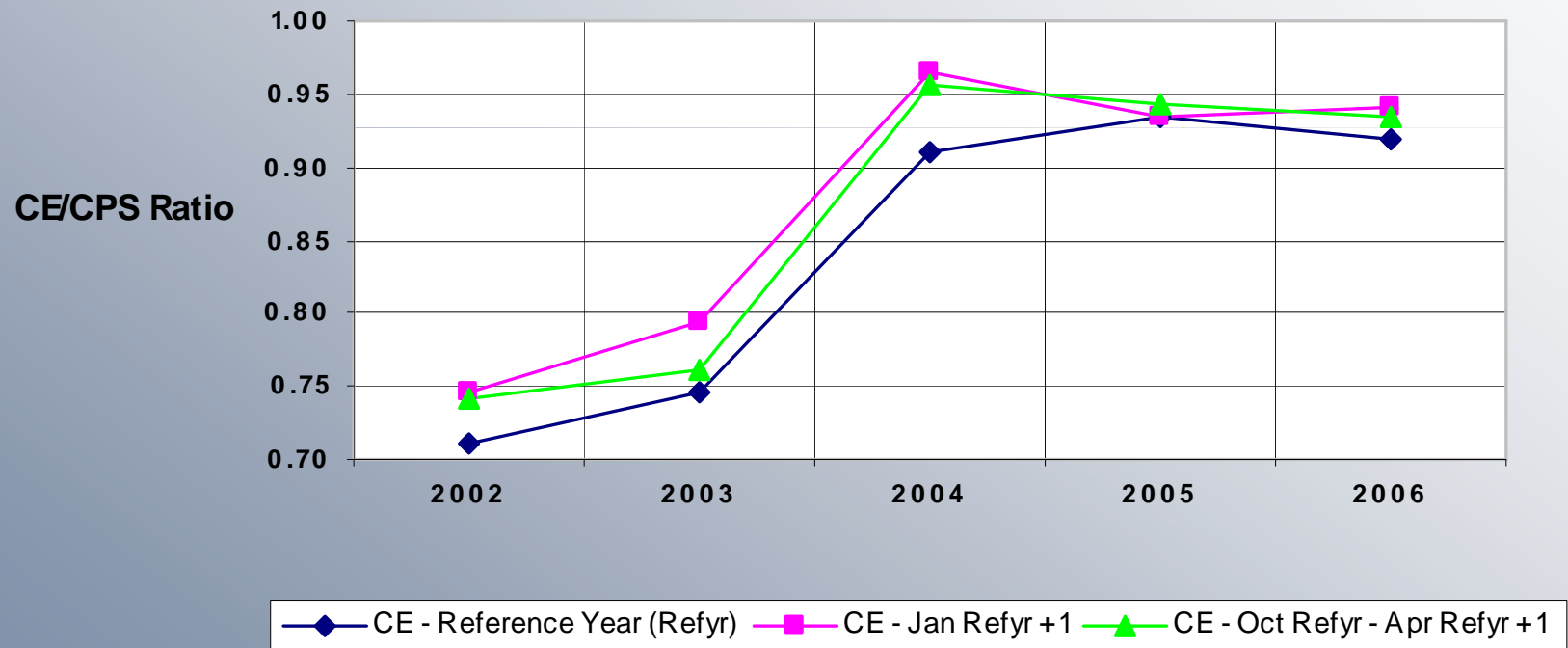


Analysis by Source of Income

Total income



CE/CPS Ratio for Total Income

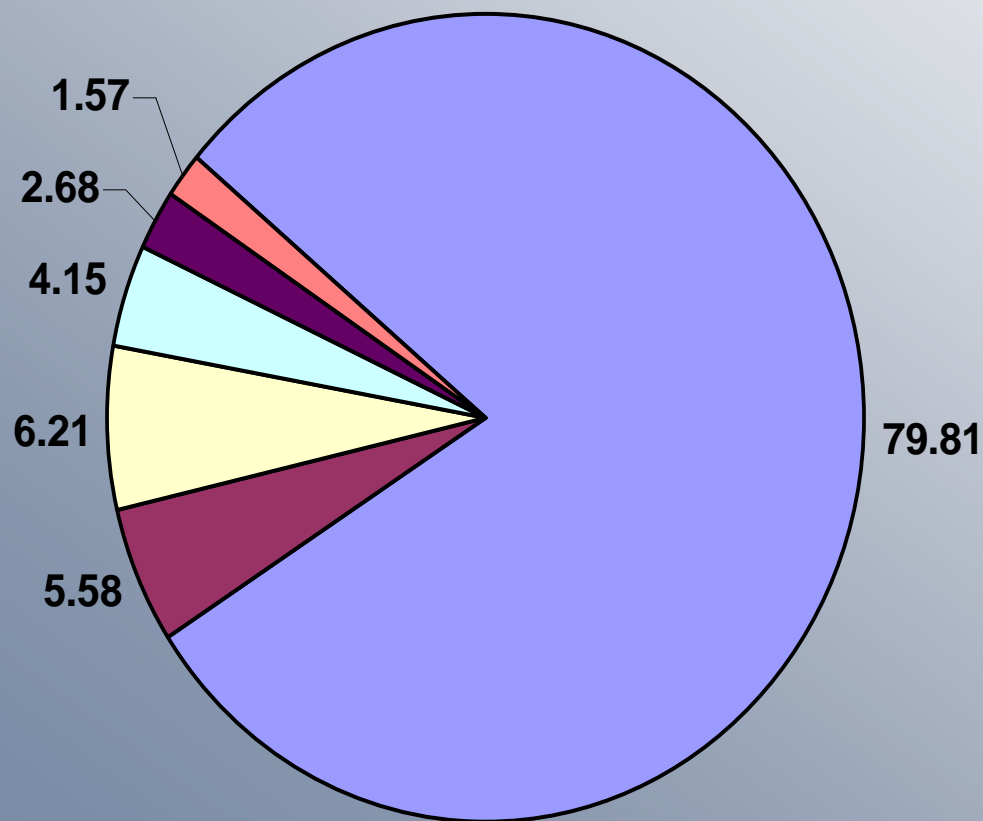


Total income



| | Aggregate (billions of \$) | CE/CPS ratio | CE percent imputed |
|--------------------------|-------------------------------|-----------------|--------------------------|
| 2006 | | | |
| CPS | 7,800.6 | | |
| CE - Reference Year 2006 | 7,170.8 | 91.9 | 39.3 |
| CE - Jan 2007 | 7,332.3 | 94.0 | 39.5 |
| CE - Oct 2006 - Apr 2007 | 7,286.8 | 93.4 | 38.3 |
| 2005 | | | |
| CPS | 7,352.4 | | |
| CE - Reference Year 2005 | 6,872.5 | 93.5 | 37.1 |
| CE - Jan 2006 | 6,872.1 | 93.5 | 37.0 |
| CE - Oct 2005 - Apr 2006 | 6,940.3 | 94.4 | 36.5 |
| 2004 | | | |
| CPS | 6,939.6 | | |
| CE - Reference Year 2004 | 6,322.2 | 91.1 | 37.6 |
| CE - Jan 2005 | 6,689.9 | 96.4 | 35.5 |
| CE - Oct 2004 - Apr 2005 | 6,636.6 | 95.6 | 35.6 |
| 2003 | | | |
| CPS | 6,707.2 | | |
| CE - Reference Year 2003 | 5,007.9 | 74.7 | |
| CE - Jan 2004 | 5,328.2 | 79.4 | |
| CE - Oct 2003 - Apr 2004 | 5,109.5 | 76.2 | |
| 2002 | | | |
| CPS | 6,515.7 | | |
| CE - Reference Year 2002 | 4,629.0 | 71.0 | |
| CE - Jan 2003 | 4,858.1 | 74.6 | |
| CE - Oct 2002 - Apr 2003 | 4,838.7 | 74.3 | |

Percentage Distribution of CE Income by Source, 2006, Oct Refyr - Apr Refyr + 1



- Wages and salaries
- All self-employment income
- Social Security & Railroad Retirement
- Pensions and annuities
- Interest, dividends, rents, royalties, estates and trusts
- All other income

Wage and salary income



| | Aggregate (billions of \$) | CE/CPS ratio | CE percent imputed |
|--------------------------|-------------------------------|-----------------|--------------------------|
| 2006 | | | |
| CPS | 5,967.4 | | |
| CE - Reference Year 2006 | 5,718.6 | 95.8 | 39.7 |
| CE - Jan 2007 | 5,994.1 | 100.4 | 38.5 |
| CE - Oct 2006 - Apr 2007 | 5,815.2 | 97.5 | 38.7 |
| 2005 | | | |
| CPS | 5,630.6 | | |
| CE - Reference Year 2005 | 5,432.6 | 96.5 | 37.8 |
| CE - Jan 2006 | 5,394.3 | 95.8 | 37.0 |
| CE - Oct 2005 - Apr 2006 | 5,522.8 | 98.1 | 36.8 |
| 2004 | | | |
| CPS | 5,346.6 | | |
| CE - Reference Year 2004 | 5,021.3 | 93.9 | 38.6 |
| CE - Jan 2005 | 5,119.7 | 95.8 | 36.5 |
| CE - Oct 2004 - Apr 2005 | 5,206.3 | 97.4 | 36.0 |
| 2003 | | | |
| CPS | 5,157.1 | | |
| CE - Reference Year 2003 | 4,042.1 | 78.4 | |
| CE - Jan 2004 | 4,295.7 | 83.3 | |
| CE - Oct 2003 - Apr 2004 | 4,125.7 | 80.0 | |
| 2002 | | | |
| CPS | 5,078.4 | | |
| CE - Reference Year 2002 | 3,736.3 | 73.6 | |
| CE - Jan 2003 | 3,880.9 | 76.4 | |
| CE - Oct 2002 - Apr 2003 | 3,890.2 | 76.6 | |

Nonfarm self-employment income



| | Aggregate (billions of \$) | CE/CPS ratio | CE percent imputed |
|--------------------------|-------------------------------|-----------------|--------------------------|
| 2006 | | | |
| CPS | 407.7 | | |
| CE - Reference Year 2006 | 414.0 | 101.5 | 65.0 |
| CE - Jan 2007 | 445.0 | 109.1 | 75.3 |
| CE - Oct 2006 - Apr 2007 | 380.1 | 93.2 | 65.1 |
| 2005 | | | |
| CPS | 366.5 | | |
| CE - Reference Year 2005 | 430.1 | 117.4 | 56.4 |
| CE - Jan 2006 | 558.5 | 152.4 | 58.9 |
| CE - Oct 2005 - Apr 2006 | 423.4 | 115.5 | 57.2 |
| 2004 | | | |
| CPS | 321.7 | | |
| CE - Reference Year 2004 | 338.4 | 105.2 | 57.1 |
| CE - Jan 2005 | 566.6 | 176.1 | 53.9 |
| CE - Oct 2004 - Apr 2005 | 435.1 | 135.2 | 58.7 |
| 2003 | | | |
| CPS | 331.6 | | |
| CE - Reference Year 2003 | 194.6 | 58.7 | |
| CE - Jan 2004 | 210.7 | 63.5 | |
| CE - Oct 2003 - Apr 2004 | 194.3 | 58.6 | |
| 2002 | | | |
| CPS | 302.6 | | |
| CE - Reference Year 2002 | 197.8 | 65.4 | |
| CE - Jan 2003 | 204.3 | 67.5 | |
| CE - Oct 2002 - Apr 2003 | 198.6 | 65.6 | |

Farm self-employment income



| | Aggregate (billions of \$) | CE/CPS ratio | CE percent imputed |
|--------------------------|-------------------------------|-----------------|--------------------------|
| 2006 | | | |
| CPS | 31.7 | | |
| CE - Reference Year 2006 | 14.7 | 46.5 | 65.7 |
| CE - Jan 2007 | 13.1 | 41.5 | 78.6 |
| CE - Oct 2006 - Apr 2007 | 26.7 | 84.3 | 34.4 |
| 2005 | | | |
| CPS | 37.3 | | |
| CE - Reference Year 2005 | 12.5 | 33.7 | 82.3 |
| CE - Jan 2006 | 20.1 | 53.9 | 39.9 |
| CE - Oct 2005 - Apr 2006 | 10.6 | 28.5 | 42.1 |
| 2004 | | | |
| CPS | 29.0 | | |
| CE - Reference Year 2004 | 22.6 | 77.8 | 64.1 |
| CE - Jan 2005 | 15.7 | 54.0 | 51.9 |
| CE - Oct 2004 - Apr 2005 | 11.3 | 38.9 | 63.3 |
| 2003 | | | |
| CPS | 28.0 | | |
| CE - Reference Year 2003 | 15.8 | 56.3 | |
| CE - Jan 2004 | 8.2 | 29.1 | |
| CE - Oct 2003 - Apr 2004 | 14.8 | 53.0 | |
| 2002 | | | |
| CPS | 20.4 | | |
| CE - Reference Year 2002 | 14.9 | 72.8 | |
| CE - Jan 2003 | 4.2 | 20.3 | |
| CE - Oct 2002 - Apr 2003 | 18.5 | 90.7 | |

Social Security and Railroad Retirement



| | Aggregate (billions of \$) | CE/CPS ratio | CE percent imputed |
|--------------------------|-------------------------------|-----------------|--------------------------|
| 2006 | | | |
| CPS | 471.5 | | |
| CE - Reference Year 2006 | 446.0 | 94.6 | 22.5 |
| CE - Jan 2007 | 409.1 | 86.8 | 24.4 |
| CE - Oct 2006 - Apr 2007 | 452.2 | 95.9 | 22.6 |
| 2005 | | | |
| CPS | 449.2 | | |
| CE - Reference Year 2005 | 431.0 | 96.0 | 20.9 |
| CE - Jan 2006 | 441.1 | 98.2 | 20.2 |
| CE - Oct 2005 - Apr 2006 | 441.9 | 98.4 | 23.0 |
| 2004 | | | |
| CPS | 431.8 | | |
| CE - Reference Year 2004 | 400.0 | 92.6 | 21.9 |
| CE - Jan 2005 | 431.0 | 99.8 | 18.9 |
| CE - Oct 2004 - Apr 2005 | 411.4 | 95.3 | 19.8 |
| 2003 | | | |
| CPS | 410.1 | | |
| CE - Reference Year 2003 | 325.4 | 79.3 | |
| CE - Jan 2004 | 343.8 | 83.8 | |
| CE - Oct 2003 - Apr 2004 | 334.7 | 81.6 | |
| 2002 | | | |
| CPS | 389.8 | | |
| CE - Reference Year 2002 | 312.9 | 80.3 | |
| CE - Jan 2003 | 299.1 | 76.7 | |
| CE - Oct 2002 - Apr 2003 | 315.9 | 81.0 | |

Pensions and annuities



| | Aggregate (billions of \$) | CE/CPS ratio | CE percent imputed |
|--------------------------|-------------------------------|-----------------|--------------------------|
| 2006 | | | |
| CPS | 314.9 | | |
| CE - Reference Year 2006 | 283.5 | 90.0 | 22.0 |
| CE - Jan 2007 | 213.6 | 67.8 | 24.7 |
| CE - Oct 2006 - Apr 2007 | 302.6 | 96.1 | 24.6 |
| 2005 | | | |
| CPS | 310.3 | | |
| CE - Reference Year 2005 | 290.4 | 93.6 | 21.0 |
| CE - Jan 2006 | 268.1 | 86.4 | 16.8 |
| CE - Oct 2005 - Apr 2006 | 291.1 | 93.8 | 22.7 |
| 2004 | | | |
| CPS | 291.9 | | |
| CE - Reference Year 2004 | 280.1 | 96.0 | 21.0 |
| CE - Jan 2005 | 300.0 | 102.8 | 14.4 |
| CE - Oct 2004 - Apr 2005 | 316.3 | 108.3 | 19.5 |
| 2003 | | | |
| CPS | 276.3 | | |
| CE - Reference Year 2003 | 226.3 | 81.9 | |
| CE - Jan 2004 | 252.6 | 91.5 | |
| CE - Oct 2003 - Apr 2004 | 231.8 | 83.9 | |
| 2002 | | | |
| CPS | 262.5 | | |
| CE - Reference Year 2002 | 178.7 | 68.1 | |
| CE - Jan 2003 | 217.4 | 82.8 | |
| CE - Oct 2002 - Apr 2003 | 203.4 | 77.5 | |

Interest



| | Aggregate (billions of \$) | CE/CPS ratio | CE percent imputed |
|--------------------------|-------------------------------|-----------------|--------------------------|
| 2006 | | | |
| CPS | 229.2 | | |
| CE - Reference Year 2006 | 69.7 | 30.4 | 55.5 |
| CE - Jan 2007 | 66.8 | 29.1 | 59.7 |
| CE - Oct 2006 - Apr 2007 | 85.7 | 37.4 | 52.4 |
| 2005 | | | |
| CPS | 186.9 | | |
| CE - Reference Year 2005 | 61.9 | 33.1 | 52.2 |
| CE - Jan 2006 | 37.6 | 20.1 | 66.4 |
| CE - Oct 2005 - Apr 2006 | 61.3 | 32.8 | 57.3 |
| 2004 | | | |
| CPS | 163.2 | | |
| CE - Reference Year 2004 | 59.0 | 36.2 | 53.0 |
| CE - Jan 2005 | 59.0 | 36.1 | 34.1 |
| CE - Oct 2004 - Apr 2005 | 49.8 | 30.5 | 50.3 |
| 2003 | | | |
| CPS | 148.3 | | |
| CE - Reference Year 2003 | 47.9 | 32.3 | |
| CE - Jan 2004 | 38.2 | 25.7 | |
| CE - Oct 2003 - Apr 2004 | 43.4 | 29.2 | |
| 2002 | | | |
| CPS | 145.4 | | |
| CE - Reference Year 2002 | 36.9 | 25.4 | |
| CE - Jan 2003 | 39.8 | 27.4 | |
| CE - Oct 2002 - Apr 2003 | 41.7 | 28.7 | |

Dividends, rents, royalties, estates and trusts



| | Aggregate (billions of \$) | CE/CPS ratio | CE percent imputed |
|--------------------------|-------------------------------|-----------------|--------------------------|
| 2006 | | | |
| CPS | 186.7 | | |
| CE - Reference Year 2006 | 106.9 | 57.3 | 33.5 |
| CE - Jan 2007 | 80.1 | 42.9 | 28.4 |
| CE - Oct 2006 - Apr 2007 | 109.5 | 58.6 | 38.3 |
| 2005 | | | |
| CPS | 169.8 | | |
| CE - Reference Year 2005 | 99.9 | 58.8 | 36.2 |
| CE - Jan 2006 | 45.1 | 26.6 | 50.5 |
| CE - Oct 2005 - Apr 2006 | 71.9 | 42.3 | 36.4 |
| 2004 | | | |
| CPS | 157.0 | | |
| CE - Reference Year 2004 | 85.3 | 54.3 | 37.1 |
| CE - Jan 2005 | 50.6 | 32.2 | 32.1 |
| CE - Oct 2004 - Apr 2005 | 81.0 | 51.6 | 40.0 |
| 2003 | | | |
| CPS | 152.4 | | |
| CE - Reference Year 2003 | 60.7 | 39.8 | |
| CE - Jan 2004 | 63.2 | 41.5 | |
| CE - Oct 2003 - Apr 2004 | 65.6 | 43.0 | |
| 2002 | | | |
| CPS | 119.7 | | |
| CE - Reference Year 2002 | 50.3 | 42.1 | |
| CE - Jan 2003 | 48.9 | 40.9 | |
| CE - Oct 2002 - Apr 2003 | 57.3 | 47.8 | |

Supplemental Security Income



| | Aggregate (billions of \$) | CE/CPS ratio | CE percent imputed |
|--------------------------|-------------------------------|-----------------|--------------------------|
| 2006 | | | |
| CPS | 31.6 | | |
| CE - Reference Year 2006 | 23.6 | 74.6 | 20.0 |
| CE - Jan 2007 | 26.6 | 84.1 | 15.4 |
| CE - Oct 2006 - Apr 2007 | 25.9 | 81.8 | 17.9 |
| 2005 | | | |
| CPS | 31.1 | | |
| CE - Reference Year 2005 | 25.0 | 80.4 | 18.2 |
| CE - Jan 2006 | 25.9 | 83.3 | 9.5 |
| CE - Oct 2005 - Apr 2006 | 26.4 | 84.7 | 22.4 |
| 2004 | | | |
| CPS | 30.6 | | |
| CE - Reference Year 2004 | 20.8 | 67.9 | 18.4 |
| CE - Jan 2005 | 13.4 | 43.8 | 10.3 |
| CE - Oct 2004 - Apr 2005 | 18.9 | 61.9 | 17.9 |
| 2003 | | | |
| CPS | 28.0 | | |
| CE - Reference Year 2003 | 19.1 | 68.2 | |
| CE - Jan 2004 | 14.6 | 52.0 | |
| CE - Oct 2003 - Apr 2004 | 15.5 | 55.4 | |
| 2002 | | | |
| CPS | 25.9 | | |
| CE - Reference Year 2002 | 23.3 | 90.0 | |
| CE - Jan 2003 | 19.5 | 75.2 | |
| CE - Oct 2002 - Apr 2003 | 20.8 | 80.3 | |

Child support



| | Aggregate (billions of \$) | CE/CPS ratio | CE percent imputed |
|--------------------------|-------------------------------|-----------------|--------------------------|
| 2006 | | | |
| CPS | 25.4 | | |
| CE - Reference Year 2006 | 22.6 | 88.9 | 9.4 |
| CE - Jan 2007 | 18.1 | 71.3 | 13.4 |
| CE - Oct 2006 - Apr 2007 | 21.3 | 84.0 | 9.4 |
| 2005 | | | |
| CPS | 26.0 | | |
| CE - Reference Year 2005 | 19.2 | 73.8 | 8.0 |
| CE - Jan 2006 | 17.0 | 65.4 | 13.0 |
| CE - Oct 2005 - Apr 2006 | 19.6 | 75.4 | 9.6 |
| 2004 | | | |
| CPS | 27.0 | | |
| CE - Reference Year 2004 | 19.2 | 71.1 | 13.2 |
| CE - Jan 2005 | 21.7 | 80.5 | 12.1 |
| CE - Oct 2004 - Apr 2005 | 21.0 | 77.7 | 10.1 |
| 2003 | | | |
| CPS | 25.1 | | |
| CE - Reference Year 2003 | 17.1 | 67.9 | |
| CE - Jan 2004 | 21.5 | 85.4 | |
| CE - Oct 2003 - Apr 2004 | 16.9 | 67.4 | |
| 2002 | | | |
| CPS | 24.0 | | |
| CE - Reference Year 2002 | 13.3 | 55.3 | |
| CE - Jan 2003 | 13.3 | 55.3 | |
| CE - Oct 2002 - Apr 2003 | 14.3 | 59.6 | |

Workers' compensation and veterans' benefits



| | Aggregate (billions of \$) | CE/CPS ratio | CE percent imputed |
|--------------------------|-------------------------------|-----------------|--------------------------|
| 2006 | | | |
| CPS | 41.6 | | |
| CE - Reference Year 2006 | 11.8 | 28.4 | 28.6 |
| CE - Jan 2007 | 8.4 | 20.1 | 44.4 |
| CE - Oct 2006 - Apr 2007 | 13.5 | 32.4 | 22.9 |
| 2005 | | | |
| CPS | 43.9 | | |
| CE - Reference Year 2005 | 10.8 | 24.5 | 22.2 |
| CE - Jan 2006 | 7.5 | 17.1 | 0.6 |
| CE - Oct 2005 - Apr 2006 | 10.3 | 23.4 | 25.8 |
| 2004 | | | |
| CPS | 39.9 | | |
| CE - Reference Year 2004 | 8.9 | 22.4 | 26.5 |
| CE - Jan 2005 | 11.6 | 29.0 | 7.9 |
| CE - Oct 2004 - Apr 2005 | 8.9 | 22.4 | 20.1 |
| 2003 | | | |
| CPS | 36.1 | | |
| CE - Reference Year 2003 | 8.0 | 22.2 | |
| CE - Jan 2004 | 8.1 | 22.5 | |
| CE - Oct 2003 - Apr 2004 | 9.9 | 27.3 | |
| 2002 | | | |
| CPS | 36.4 | | |
| CE - Reference Year 2002 | 7.7 | 20.4 | |
| CE - Jan 2003 | 6.5 | 17.2 | |
| CE - Oct 2002 - Apr 2003 | 7.1 | 18.7 | |

Unemployment compensation



| | Aggregate (billions of \$) | CE/CPS ratio | CE percent imputed |
|--------------------------|-------------------------------|-----------------|--------------------------|
| 2006 | | | |
| CPS | 20.7 | | |
| CE - Reference Year 2006 | 12.8 | 61.9 | 25.8 |
| CE - Jan 2007 | 16.0 | 77.3 | 34.3 |
| CE - Oct 2006 - Apr 2007 | 11.0 | 53.5 | 25.6 |
| 2005 | | | |
| CPS | 22.3 | | |
| CE - Reference Year 2005 | 13.1 | 58.8 | 15.4 |
| CE - Jan 2006 | 9.9 | 44.4 | 34.3 |
| CE - Oct 2005 - Apr 2006 | 11.6 | 52.1 | 19.4 |
| 2004 | | | |
| CPS | 25.0 | | |
| CE - Reference Year 2004 | 18.6 | 74.3 | 19.3 |
| CE - Jan 2005 | 22.4 | 89.5 | 40.1 |
| CE - Oct 2004 - Apr 2005 | 16.4 | 65.4 | 20.5 |
| 2003 | | | |
| CPS | 36.9 | | |
| CE - Reference Year 2003 | 18.8 | 51.0 | |
| CE - Jan 2004 | 20.6 | 55.8 | |
| CE - Oct 2003 - Apr 2004 | 20.0 | 54.1 | |
| 2002 | | | |
| CPS | 37.9 | | |
| CE - Reference Year 2002 | 14.7 | 38.7 | |
| CE - Jan 2003 | 13.2 | 34.8 | |
| CE - Oct 2002 - Apr 2003 | 20.1 | 53.0 | |

Public assistance



| | Aggregate (billions of \$) | CE/CPS ratio | CE Percent Imputed |
|--------------------------|-------------------------------|-----------------|--------------------------|
| 2006 | | | |
| CPS | 5.6 | | |
| CE - Reference Year 2006 | 5.2 | 92.9 | 21.1 |
| CE - Jan 2007 | 4.9 | 87.9 | 43.3 |
| CE - Oct 2006 - Apr 2007 | 5.0 | 90.2 | 24.6 |
| 2005 | | | |
| CPS | 6.6 | | |
| CE - Reference Year 2005 | 5.2 | 78.7 | 19.6 |
| CE - Jan 2006 | 4.9 | 74.8 | 15.9 |
| CE - Oct 2005 - Apr 2006 | 5.5 | 83.8 | 18.3 |
| 2004 | | | |
| CPS | 5.8 | | |
| CE - Reference Year 2004 | 4.7 | 82.1 | 22.6 |
| CE - Jan 2005 | 5.6 | 97.5 | 18.6 |
| CE - Oct 2004 - Apr 2005 | 5.0 | 87.4 | 25.3 |
| 2003 | | | |
| CPS | 7.1 | | |
| CE - Reference Year 2003 | 4.1 | 57.4 | |
| CE - Jan 2004 | 2.6 | 36.9 | |
| CE - Oct 2003 - Apr 2004 | 3.9 | 55.7 | |
| 2002 | | | |
| CPS | 6.0 | | |
| CE - Reference Year 2002 | 4.1 | 67.8 | |
| CE - Jan 2003 | 4.2 | 69.6 | |
| CE - Oct 2002 - Apr 2003 | 4.6 | 76.6 | |

All other income, including accident & temporary insurance, educational assistance, alimony, financial assistance



| | Aggregate (billions of \$) | CE/CPS ratio | CE percent imputed |
|--------------------------|-------------------------------|-----------------|--------------------------|
| 2006 | | | |
| CPS | 66.6 | | |
| CE - Reference Year 2006 | 41.4 | 62.1 | 33.4 |
| CE - Jan 2007 | 36.6 | 55.0 | 25.3 |
| CE - Oct 2006 - Apr 2007 | 38.0 | 57.0 | 31.1 |
| 2005 | | | |
| CPS | 72.0 | | |
| CE - Reference Year 2005 | 40.7 | 56.5 | 26.1 |
| CE - Jan 2006 | 41.9 | 58.1 | 40.8 |
| CE - Oct 2005 - Apr 2006 | 43.9 | 60.9 | 34.7 |
| 2004 | | | |
| CPS | 70.2 | | |
| CE - Reference Year 2004 | 43.1 | 61.4 | 22.7 |
| CE - Jan 2005 | 72.6 | 103.5 | 20.0 |
| CE - Oct 2004 - Apr 2005 | 55.2 | 78.6 | 22.9 |
| 2003 | | | |
| CPS | 70.0 | | |
| CE - Reference Year 2003 | 28.0 | 40.0 | |
| CE - Jan 2004 | 48.5 | 69.2 | |
| CE - Oct 2003 - Apr 2004 | 32.9 | 47.0 | |
| 2002 | | | |
| CPS | 66.7 | | |
| CE - Reference Year 2002 | 38.1 | 57.2 | |
| CE - Jan 2003 | 107.0 | 160.5 | |
| CE - Oct 2002 - Apr 2003 | 46.3 | 69.5 | |



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