

Income data quality issues in the CPS

The Annual Social and Economic Supplement to the Current Population Survey measures income and poverty in the United States; a close look into the questionnaire design, data collection and preparation, and postcollection data processing suggests areas for improvement and issues for future research

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How well does the official data source measure income and depict poverty in the United States? The current official poverty statistics published by the Census Bureau are based on money income data collected on the Annual Social and Economic Supplement (ASEC) to the Current Population Survey (CPS). The Office of Management and Budget specifies an absolute poverty standard (the official poverty thresholds) that gauges poverty by family size and income.¹ Over the years, several studies have suggested changes in the way poverty is measured. For example, a National Academy of Sciences panel, among others, has suggested both that the appropriate measure of resources to use in a poverty measure is broader than money income—more of a disposable income concept that takes account of noncash benefits and work expenses (including taxes)—and that the poverty thresholds ought to be revised (upward).² Also, Robert Rector, Kirk A. Johnson, and Sarah E. Youssef, as well as other researchers, have suggested, based on comparisons to the National Income and Product Accounts (NIPA), that income is underreported on the CPS ASEC.³ Such under-reporting would suggest that the estimated poverty rate is too high.

Whether these suggestions to change the way poverty is measured are useful will ultimately depend on the ability of the available data sources to measure economic well-being appropriately. This article focuses on the quality of one of those data sources—the CPS ASEC. The examination is

organized in three parts, which mirror the survey process—questionnaire design, data collection and preparation (including edits and imputation), and post-collection data processing (to enhance the dataset). Finally, the article proposes a set of research projects that could be used to remedy many of the deficiencies identified and at least encourage discussion among interested researchers.

Questionnaire design

Since its inception in April 1948, the CPS ASEC has undergone two major redesigns; one in March 1968 for collection of calendar 1967 income data and the other in March 1980 for 1979 income data. The Canberra Group, an international group of experts convened by the United Nations, provided an objective examination of whether a country's income questionnaire collects the “right” data by comparing current practice with an “ideal” measure. This group of experts has made specific recommendations for constructing a comprehensive income definition that would improve the ability of analysts to make international comparisons of income distributions.⁴

The Canberra Group's choice of current rather than potential well-being (that is, “Could the income component be ‘spent today’?”) guided their selection of income components along three other dimensions: cash versus noncash income, regular versus irregular income, and assets and liabilities

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(net worth). Both regular and irregular income, as well as cash and noncash income, are included in total income if they are received in a form that can be spent (consumed) immediately. If some action must be taken to convert the item to spendable income—such as selling equity shares received as stock options—then it is not considered to be income until the income has been realized by the household. Exhibit 1 summarizes the major categories of income, according to the Canberra Group’s methodology.⁵

The key issue regarding questionnaire design for the United States is whether the CPS ASEC collects all (or most) of the important components of the income types described in exhibit 1. A corollary issue is whether omissions can be compensated

for by other means (such as imputation or microsimulation). Exhibit 2 presents one interpretation of the major and minor components of the income definition necessary for valid international income comparisons, and shows whether they are collected by the CPS ASEC.⁶

Conceptually at least, the CPS ASEC collects or imputes nearly all the components of income necessary to compute the Canberra Group’s comprehensive measure. The major components that are missing are home production for home use or barter transactions (relatively unimportant in the U.S. context), transfers paid to another household or payments made on behalf of another household, and some fringe benefits (particularly, company cars and subsidized meals).

Exhibit 1. Canberra Group comprehensive income definition

Employee cash or near-cash income (wages, salaries, tips, bonuses, sick pay, vacation pay, profit sharing including stock options, severance and termination pay, location-specific allowances)	
plus	
Cash value of employee fringe benefits (employer contributions to social insurance, goods and services provided to employee as part of employment)	
plus	
Income from farm and non-farm self-employment (profits/losses from unincorporated business, royalties)	
plus	
Net value of home production (used for barter or consumption)	
plus	
Imputed rent from owner-occupied dwellings	
plus	
Net income from rentals	
plus	
Property income (interest received less interest paid, dividends)	
plus	
Current transfers from employers and the government (for example, pensions, Social Security, welfare)	
plus	
Other regularly received money income (for example, inter-household transfers)	
<i>equals</i>	Total income
	less
Regular Transfers Paid (employees’ and employers’ social insurance contributions, income and wealth taxes, regular interhousehold transfers, charitable contributions)	
<i>equals</i>	Disposable income

SOURCE: Adapted from Expert Group (2001), Table 2.1.

Exhibit 2. “Major” and “minor” components of the Canberra Group recommended income definition collected, imputed, or not collected by the Annual Social and Economic Supplement to the Current Population Survey

Major element	Minor element
Cash earnings	
J Wages and salaries (main job)	J Tips
J Wages and salaries (other jobs)	J Bonuses
S (Net) nonfarm self-employment	J Severance pay
S (Net) farm self-employment	
N Net income (after expenses) from home production for barter transactions	
Other cash market income	
J Employer-based pensions or other periodic retirement including pensions bought with additional employee voluntary contributions	N Profit-sharing including stock options
S Interest received	J Foreign pensions
S Dividends	J Royalties earned by households as unincorporated enterprises
J Rental income earned by households as unincorporated enterprises	J Interest and dividends from estates and trusts
	N Profits from unincorporated business capital investment
	J Interest paid on non-mortgage loans (subtraction)
	J Pension or annuity income from self-financed investments
Cash transfers	
N Family or child benefits/credits/allowance	N Parenting payment
N Maternity benefits/allowances/grants	S Government workers’ compensation (on-the-job injuries)
S Government social security (retirement and survivors) benefits	S Government scholarships and educational assistance (excluding loans)
S Government disability insurance/incapacity/disablement benefits	N Reduction in interest on student loans
S Government unemployment benefit/job search allowance	N Government payments for child care to permit employment
S Veterans’ benefits (for example, injury, pension)	N Child support assurance (public) benefits
S Public assistance or general welfare benefits	J Means-tested disability support
J Public assistance for elderly	J Means-tested age pension
I Rental allowances (housing subsidies)	N Other transfer programs (catch-all item)
N Means-tested unemployment benefits	
Other regularly received money income	
	S Payments for fostering children
	S Private disability insurance/incapacity/disablement benefits
	N Private unemployment/redundancy insurance
	N Private workers’ compensation (on-the-job injuries)
	N Private scholarships and educational assistance (excluding loans)
	J Military family allotments
	S Union sick or disability pay
	S Union strike pay
	N Regular receipts from nonprofit entities

Exhibit 2. Continued—"Major" and "minor" components of the Canberra Group recommended income definition collected, imputed, or not collected by the Annual Social and Economic Supplement to the Current Population Survey

Major element	Minor element
Net realized capital gains and intermittent income	
I Realized capital gains	N Lump-sum retirement payout N Profits from life insurance N Lottery or gambling winnings
Net interhousehold transfers	
S Alimony received from another household	S Other regular payments from outside household
S Child support received from another household	N Regular interhousehold transfers or gifts paid (subtraction)
N Regular cash interhousehold transfers or gifts received	
N Alimony paid to another household	
N Child support paid to another household	
N Payments on behalf of another household	
In-kind earnings and home production	
N Net income (after expenses) from home production for home use	
Net (nondiscretionary) work expenses (subtractions)	
I Employee contributions to government insurance premiums (including payroll taxes)	N Employer reimbursements for discretionary work expenses N Government-mandated employee contributions to unemployment insurance
Net direct income taxes	
I Income taxes net of refunds (subtraction)	I Child tax credit I Earned income tax credit N Other tax credits N Compulsory fees and fines (subtraction)
In-kind market income	
I Employer contributions to private health insurance	N Employer contributions to life insurance
N Company cars	N Employer contributions to employer other insurance schemes (for example, disability)
N Subsidized meals	N Employer contributions to government insurance schemes (including payroll taxes) N Subsidized (low-interest) loans N Subsidized housing, electricity N Subsidized child care N Subsidized vacations
In-kind transfers	
I Government-subsidized health care services	N Public education
S Food subsidies or vouchers	N Surplus food and clothing
I Publicly owned housing subsidy	
Imputed rent for owner-occupied dwellings	
I Imputed return on the equity in one's own home, accounting for property (real estate) taxes and interest paid on mortgage loans	

NOTES: I = Imputed
J = Collected jointly with another component
N = Not collected
S = Collected as a separate income component

SOURCE: Income components classified as major or minor by Timothy M. Smeeding and Daniel H. Weinberg, "Toward a Uniform Definition of Household Income," *Review of Income and Wealth*, March 2001.

In most societies, “underground,” “nonmarket,” or “black market” income from legal or illegal activities is typically omitted from official income statistics. This income ranges from barter transactions to home production (for example, the income generated from home gardens) to illegal income. Researchers are a long way from measuring these activities, so including this income into official statistics would be quite difficult.⁷

Data collection

The two data collection issues that affect data quality are how to handle unit nonresponse (a missing questionnaire for the entire household unit) and item nonresponse (failure to answer a particular survey question). Typical response rates to the CPS are about 92 percent to 93 percent, but the eligible households who do not respond to this voluntary survey are likely to be different from the ones who do respond. CPS data are weighted to correct for demographic aspects of unit nonresponse (for example, lower than average coverage of young black men), but to the extent that income reporting is uncorrelated with those basic demographic characteristics, undercoverage of certain groups may lead to biases in the income data that result.

Item nonresponse is compensated for by editing and imputation—programs that first correct obvious errors, then calculate implied answers, and finally impute for missing data. “Hot deck” imputation (duplication of other households’ responses) is used to handle this last aspect of item nonresponse on the CPS, but again, if the determinants of that nonresponse are not fully controlled for in the imputation process, biases may remain.⁸ Procedures to enhance the data through regression analysis, microsimulation, matching to administrative records to develop improved imputation models, or via other means, are all avenues that could be investigated to improve imputation for item nonresponse.

The accuracy and completeness of CPS income data is also affected by response error, in that respondents may not be reporting full and accurate information. Comparisons of CPS income data with aggregate totals from independent sources give some idea of the magnitude of misreporting, but they do not tell us whether misreporting affects distributional measures such as poverty (it would if underreporting were correlated with income).

In many countries, underreporting is disproportionately high for three types of income: government transfers, property income, and self-employment income.⁹ On the one hand, because transfers are more likely to be received by people in the lower tail of the income distribution, this underreporting would increase measured poverty. On the other hand, underreporting of property income tends to lower the income of households at the top of the distribution, leaving poverty unaffected. Underreporting of self-employment income can result in too many individuals with low incomes, or even negative incomes,

also affecting the measured poverty rate.

Rector and others have argued that “the CPS dramatically and consistently under reports the economic resources of households”—by about \$2 trillion in 1996 when they compared economic resources with estimates they derived from the Bureau of Economic Analysis (BEA) NIPA’s.¹⁰ However, Roemer responds that this “reporting shortfall” is an “incorrect characterization of the discrepancy because the income measures are not directly comparable...[since] the March CPS does not aim to measure many of the components of income contained in the NIPA’s” and he pegs the underreporting as substantially less.¹¹

John Ruser, Adrienne Pilot, and Charles Nelson have recently prepared an evaluation of alternative measures of household income which also discusses underreporting in the CPS supplement using BEA estimates of State Personal Income.¹² They summarize their conclusions about CPS underreporting as follows:

BEA estimates that personal income for the U.S. was \$8.679 trillion in 2001, as compared to a CPS money income estimate of \$6.446 trillion. Over 64 percent of this \$2.233 trillion gap—\$1.427 trillion—can be accounted for by differences in the income types that are included in the two measures... Half of the remaining \$806 billion money income gap can be accounted for by BEA adjustments to proprietors’ income and wages and salaries for underreporting in BEA source data.

They also note:

[BEA] Personal income exceeds money income in part because the former includes not only income received by individuals but also income received on behalf of individuals. In 2001, \$982 billion in property income (dividends, interest and rents) was received on behalf of individuals by pension plans, nonprofit institutions serving households, and fiduciaries. Personal income also contains other income categories not in CPS money income. Most notably, personal income included \$563 billion in employer contributions for employee pension and insurance funds and \$592 billion in transfer payments, mostly non-cash, like Medicaid, food stamps, and energy assistance. [On the other hand, BEA personal income excluded \$813 billion included in the CPS measure.] Almost half (44 percent) of that [exclusion]—\$360 billion—came from disbursements of retirement income benefits. [Also excluded was] \$372 billion in personal contributions to social insurance (largely Social Security).

Other studies have examined different aspects of income data collection on the CPS. John Bound and Alan B. Krueger found that more than 40 percent of CPS respondents, for whom data could be matched to Social Security earnings records, report

earnings within 2.5 percent of earnings as reported to the Internal Revenue Service.¹³ John Coder and Lydia Scoon-Rogers, and Marc I. Roemer, have documented underreporting for certain income sources (most worrisome, in percentage terms, for self-employment income, interest, dividends, and transfer payments; in quantitative terms, for wages and salaries).¹⁴ Roemer found that the CPS had “an excess of high wages and [a] shortage of low wages.”¹⁵

Others have suggested that transfer program reporting has gotten worse, perhaps in part related to the passage of the welfare reform legislation in 1996, which permitted States to create new programs for low-income families and convert cash assistance into other forms of support (for example, child care and transportation assistance).¹⁶

Postcollection processing

Two key operations that have been used to “add value” to the basic microdata of the CPS supplement after the Census Bureau collects and processes the data are—to place a value on noncash income, and to measure after-tax or disposable income at the family and household level, not at the aggregate level.

Valuation of noncash income. The issue of valuation of noncash income spans the income distribution. A more comprehensive income measure like that of the Canberra Group places a value, not only on noncash government transfers, such as food stamps for low-income families, but also on elements of nonwage compensation (from employer-provided health and life insurance to company cars) that typically go to earners at all or high income levels. The Census Bureau began publishing estimates of the value of many of these noncash benefits in 1982.¹⁷ This experimental series values food, housing, government medical transfer benefits, and employer-provided health insurance.

Each of these noncash items, except food stamps (which are valued at their coupon value), needs further developmental work to improve measurement methods. For example, the current value method for housing subsidies involves a statistical match to the 1985 American Housing Survey. Experimental methods to improve that method have been developed, but have yet to be implemented.¹⁸

Valuation of medical benefits is particularly difficult. That is, how would one impute the value of Medicare (medical aid to the elderly and some disabled persons), Medicaid (medical aid to some low-income persons and some disabled individuals), and employer-based health insurance? If one imputes the value of an equivalent insurance policy to program participants, these benefits (high in market value owing to large medical costs for the fraction who do get sick) cannot be used by recipients to meet other needs of daily living.¹⁹

Research could also be undertaken to figure out a way to place a value on other employer-provided benefits. Should

employer contributions to retirement pensions be included in nonwage compensation of current earners or measured as part of income when it is paid out to pension recipients (as it is done now)? Should questions be added to collect data on receipt of fringe benefits such as company cars and subsidized meals? Much could be learned about nonwage compensation from a study matching household data with data from employers who provide nonwage compensation.

Homeownership provides the largest noncash flow of services not currently counted in family money income, and the Canberra Group recommended that a rental-equivalent return on owner-occupied housing should be included in income. If acceptable methods to accomplish that valuation can be agreed on, that one change alone would have a substantial effect on the measured poverty of persons who own their homes “free and clear,” typically many seniors.

Measurement of disposable income. Census Bureau estimates of after-tax income are based on a microsimulation model of the likely taxes a family with particular circumstances would pay.²⁰ Although the model is reasonably accurate at an aggregate level, additional research could be carried out to improve its accuracy at the household level, particularly for imputation of the Earned Income Credit (EIC). Consensus would need to be reached on the proper way to handle other potential reductions from cash income to create a disposable income measure—specifically work expenses (including child care expenses). The National Academy of Sciences panel on poverty measurement recommended that all work expenses be deducted from income.²¹

Research implications

The income part of the CPS supplement questionnaire is unchanged in substance since March 1980 (except for conversion to a computer-assisted instrument in March 1994). Should questionnaire expansion be permitted, several improvements in the data collection instrument could be considered:

1. Collect information on important income sources missing from the current questionnaire (particularly interhousehold transfers and some fringe benefits, as noted by the Canberra Group).
2. Reduce item nonresponse (serious and potentially biasing for certain income sources).
3. Develop additional probes or alternate question sequences for income sources for which there is notable misreporting (wages, transfer payments, self-employment [proprietors’] income, interest, and dividends). It is unclear, however, what can be done to collect data on unreported nonmarket income.

However, questionnaire improvements alone are unlikely to completely eliminate income misreporting. Complementary work

could be carried out to improve postcollection processing and thereby provide new estimates reported to the public as alternatives and available for policy analysis. These tasks include:

- Improving the valuation of noncash transfers, particularly housing and medical care;
- Developing better weighting approaches for household unit and person nonresponse;

- Developing better imputation models for item nonresponse;
- Improving the modeling of imputed returns for owner-occupiers

Finally, models to correct the CPS supplement microdata for misreporting (nonreporting, underreporting, *and* overreporting) might be developed on an experimental basis, along the lines of what the Urban Institute does to adjust the CPS data for use in its Transfer Income microsimulation Model (TRIM).²² □

Notes

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¹ Carmen DeNavas-Walt, Bernadette D. Proctor, and Cheryl Hill Lee, *Income, Poverty, and Health Insurance Coverage in the United States: 2004, Current Population Reports*, P60–229 (U.S. Census Bureau, August 2005).

² Constance F. Citro and Robert T. Michael, eds., *Measuring Poverty: A New Approach* (Washington, DC, National Academy Press, 1995).

³ Robert E. Rector, Kirk A. Johnson, and Sarah E. Youssef, “The Extent of Material Hardship and Poverty in the United States,” *Review of Social Economy*, vol. 57, no. 3, 1999, pp. 351–58.

⁴ Expert [Canberra] Group on Household Income Statistics, *Guidelines for Income Distribution Statistics: Final Report of the International Expert [Canberra] Group on Household Income Statistics [to the United Nations Statistical Commission]* (Ottawa, Canada, Statistics Canada, March 2001).

⁵ For an extended discussion of the rationale for including and excluding individual sources, see Expert [Canberra] Group, *Guidelines for Income Distribution Statistics: Final Report* and Timothy M. Smeeding and Daniel H. Weinberg, “Toward a Uniform Definition of Household Income,” *Review of Income and Wealth*, series 47, no. 1, March 2001, pp. 1–24. The first version of the Smeeding-Weinberg article was written for the Group’s deliberations.

⁶ Smeeding and Weinberg, “Toward a Uniform Definition of Household Income,” 2001, identified 36 of the 106 potential income components as major (the components they recommend excluding entirely are not listed in exhibit 2).

⁷ John Ruser, Adrienne Pilot, and Charles Nelson, “Alternative Measures of Household Income: BEA Personal Income, CPS Money Income, and Beyond.” Paper prepared for the Federal Economic Statistics Advisory Committee, November 2004, available on the Internet at www.bls.gov/bls/fesacp1061104.pdf (visited June 12, 2006). This paper notes that the Bureau of Economic Analysis (BEA) estimates this nonmarket income to be \$104 billion in 2001, or 1.4 percent of money income. For more information on BEA adjustments for underreporting and nonmarket income, see Carol S. Carson, “The Underground Economy: An Introduction,” *Survey of Current Business*, vol. 64 (May and July 1984), pp. 21–37 and 106–17; J. Steven Landefeld and Barbara Fraumeni, “Measuring the New Economy,” *Survey of Current Business*, vol. 81 (March 2001), pp. 23–40; and

Robert P. Parker, “Improved Adjustment for Misreporting of Tax Return Information Used to Estimate the National Estimate of the National Income and Product Accounts, 1977,” *Survey of Current Business*, vol. 64 (June 1984), pp. 17–25.

⁸ Lee Lillard, James P. Smith, and Finis Welch, “What Do We Really Know about Wages?” The Importance of Nonreporting and Census Imputation, *The Journal of Political Economy*, vol. 94, no. 3, part 1, June 1986, pp. 489–506.

⁹ Gordon Harris, “Assessing the Robustness of Income Distribution Estimates,” In International Expert [Canberra] Group on Household Income Statistics, *Second Meeting on Household Income Statistics: Papers and Final Report* (Voorburg, The Netherlands, Statistics Netherlands, May 1998), pp. 5–14.

¹⁰ Rector, Johnson, and Youssef, “The Extent of Material Hardship and Poverty in the United States,” 1999.

¹¹ Prior to 2000, the CPS Annual Social and Economic Supplement was administered only in March and was often termed the “March supplement.” See Marc I. Roemer, “A Rejoinder to Rector et al.’s The Extent of Material Hardship and Poverty in the United States,” *Review of Social Economy*, vol. 59, no. 2, 2001, pp. 249–51.

¹² Ruser, Pilot, and Nelson, “Alternative Measures of Household Income,” 2004.

¹³ John Bound and Alan B. Krueger, “The Extent of Measurement Error in Longitudinal Earnings Data: Do Two Wrongs Make a Right?” *Journal of Labor Economics*, vol. 9, no. 1, 1991, pp. 1–24. As cited in Bruce D. Meyer, and James X. Sullivan, “Measuring the Well-Being of the Poor Using Income and Consumption,” National Bureau of Economic Research Working Paper 9760, June 2003, on the Internet at www.nber.org/papers/w9760 (visited June 12, 2006), p. 7.

¹⁴ See John Coder, and Lydia Scoon-Rogers, “Evaluating the Quality of Income Data Collected in the Annual Supplement to the March Current Population Survey and the Survey of Income and Program Participation” SIPP Working Paper 215 (U.S. Census Bureau, July 1996), on the Internet at www.sipp.census.gov/sipp/workpapr/wp215.pdf (visited on June 19, 2006). See also Marc I. Roemer, “Assessing the Quality of the March Current Population Survey and the Survey of Income and Program Participation Income Estimates, 1990–1996,” Working Paper (U.S. Census Bureau, Housing and Household Economic Statistics Division, June 2000), on the Internet at www.hhes/www/income/assess1.pdf.

¹⁵ Marc I. Roemer, “Using Administrative Earnings Records to Assess Wage Data Quality in the March Current Population Survey and the Survey of Income and Program Participation,” November 2002, on the Internet www.census.gov/hhes/www/income/asa2002.pdf (visited June 12, 2006).

¹⁶ For example, see Richard Bavier, “An Early Look at the Effects of Welfare Reform,” Unpublished manuscript (Office of Management and Budget 1999, March) and Wendell Primus, Lynette Rawlings, Kathy Larin, and Kathryn Porter, “The Initial Impacts of Welfare Reform on the Incomes of Single-Mother Families” Working Paper (Center on Budget and Policy Priorities, 1999); as cited in Meyer and Sullivan, “Measuring the Well-Being of the Poor,” 2003.

¹⁷ See for example, Robert W. Cleveland, *Alternative Income Estimates in the United States: 2003, Current Population Reports*, 60–228 (U.S. Census Bureau, June 2005).

¹⁸ See Sharon Stern, “Valuing Housing Subsidies: A Revised Method for Quantifying Benefits in a New Measure of Poverty” (U.S. Census Bureau, August 2000), on the Internet at www.census.gov/hhes/poverty/povmeas/papers/jsm00.pdf (visited June 13, 2006) and Sharon Stern, “Valuing Housing Subsidies in a New Measure of Poverty: A Statistical Match of the American Housing Survey to the Current Population Survey” (U.S. Census Bureau, August 2000), on the Internet at www.census.gov/hhes/poverty/povmeas/papers/jsm00comp.pdf (visited June 13, 2006).

¹⁹ Because these medical programs are so large, determining a better measure of the value of medical benefits or a better way of accounting for the presence of adequate health insurance was a high priority of the National Academy of Sciences panel on poverty measurement. David Ellwood and Lawrence H. Summers argued that there is little theoretical

foundation for including medical benefits as income, on the one hand, but then not adjusting income for other medical expenditures, such as insurance premium costs for those who must buy their own insurance and out-of-pocket expenditures for medical care, on the other. See Ellwood and Summers, *Conference on the Measurement of Noncash Benefits*. Proceedings, vol. 1 (U.S. Census Bureau, 1986). To treat all medical costs consistently, they concluded that it is preferable to exclude all medical care costs from income because: 1) there are large variations in medical need and more medical needs do not leave the individual better off; 2) medical benefits are not fungible, especially for the poor; and 3) there are many difficult measurement problems in trying to value medical benefits. Aaron, in the same volume, suggested (a suggestion he attributed to Gary Burtless), if a person was not poor on the basis of income, he could still be classified as poor if he did not have health insurance coverage. He argued that medical care is not fungible, so medical benefits should not be added to income. This last approach was adopted by the National Academy of Sciences in its report on poverty measurement (Citro and Michael, eds., *Measuring Poverty*, 1995).

²⁰ A revised model was implemented in 2004.

²¹ Citro and Michael, eds., *Measuring Poverty*, 1995.

²² Laura Wheaton, and Linda Giannarelli, “Underreporting of Means-Tested Transfer Programs in the March cps.” In American Statistical Association, *2000 Proceedings of the Section on Government Statistics and Section on Social Statistics*, 2000.