

Consumer Expenditure Survey comparisons with National Health Expenditures and the Current Population Survey

N*ational Health Expenditures.* The Centers for Medicare and Medicaid Services (CMS) of the U.S. Department of Health and Human Services publish annual data on total aggregate health care expenditures of the United States, referred to as National Health Expenditures (NHE). Total health care expenditures include expenditures for health care by all sources in the United States economy, including public and private sources. There are three major conceptual reasons for differences between Consumer Expenditure Survey (CE) and NHE estimates; populations covered by the surveys, service category definitions, and the scope of included covered services. NHE data cover U.S. citizens living abroad, military personnel, inhabitants of U.S. territories, and parts of the institutional population—a larger population than covered by the CE. In particular, the NHE is designed to cover the nursing home population, whereas the CE is not. In addition, NHE categories are defined according to the type of establishment that collected the revenue, whereas, CE categories are defined by the type of services provided. For example, NHE physicians services category includes outpatient care expenditures, while the CE classifies these types of expenditures as other professional services. The CE and NHE also differ with respect to the covered services included as health care expenditures, whereby NHE captures expenditures not collected in the CE. These services are considered in scope in the NHE but not in the CE, such as non-patient revenue (parking lot revenue, for example). U.S. Bureau of Labor Statistics staff compared estimates of out-of-pocket personal health care expenditures from NHE with those from the CE. Out-of-pocket expenditures for health care include expenditures for medical care that are not covered by personal health insurance or other sources of payment. Such expenditures can include co-payments and deductible amounts required by health insurance plans. To derive its out-of-pocket estimates, CMS uses data from administrative and industry sources, as well as CE data.

Text table 5 shows CE estimates of aggregate expenditures for health care (excluding health insurance, nonprescription vitamins, nursing home care, and repair and rental of medical equipment), and ratios to NHE estimates of out-of-pocket health care expenditures (excluding nursing home care). As reported in the CE, aggregate medical care expenditures, excluding those expenditure items listed above, were \$144.3 billion in 2005, or 66 percent of the NHE estimate of \$217.1

billion (excluding nursing home care expenditures). Of the CE total, \$68.2 billion was spent on medical commodities and \$76.1 billion on medical services. These amounts were 71 percent and 63 percent of the NHE estimates, respectively. Data show variations in the CE-to-NHE ratios over the 2002–2005 period for both medical commodities and medical services. Fluctuations can reflect volatility in spending on personal health care due to changes in health insurance coverages. In addition to the conceptual differences in population, definition and scope, the comparison of health care expenditures may reflect underreporting in the CE.

Current Population Survey. The U.S. Census Bureau collects income data in the Supplement to the Current Population Survey (CPS). The CPS is a household interview survey of approximately 60,000 households. Using data collected for calendar years 2003 through 2005, comparisons are made with Consumer Expenditure Survey (CE) estimates of total consumer unit income before taxes and by source of income. CPS estimates of aggregate income by source of income are derived from Census Bureau estimates of mean income of persons and the number of persons with the specified income.

There are several differences between the CE and the CPS in the concepts and methods of measuring income. The CPS collects data in March for the previous calendar year. By comparison, the CE estimates of income are obtained in the second and fifth interviews of the consumer unit. These estimates refer to the prior 12 months; and, due to the rotating panel design of the survey, the interviews may occur at any time during the year. The Census Bureau imputes CPS income data that are missing (due to nonresponse to income questions) based on demographic characteristics. In contrast, prior to 2004, CE income data that were missing due to nonresponse were not imputed as part of the CE estimation procedure; instead, CE income estimates were based on complete income reporters only. However, beginning in 2004, the CE began multiple imputation of income data that allow income values to be estimated when they are not reported. (See the section “Changes to the 2004 and 2005 Consumer Expenditure Survey Published Tables and Selected Highlights” for a discussion of income imputation.) Correspondingly, the ratio of CE to CPS money income before taxes increased from 88

percent in 2003 to 91 percent in 2004, and to 93 percent in 2005. Neither procedure accounts for underreporting.

In addition to the differences between the CE and the CPS described above, beginning in 1993, computer-assisted personal interviews (CAPI) were used to collect the CPS income data. By comparison, the CE began using computer-assisted personal interviews to collect its data in 2003. Prior to that time, CE data were collected by traditional paper and pencil interview.

Text table 6 shows that the CE estimates of total income before taxes are 88 percent, 91 percent, and 93 percent of CPS for the 2003, 2004, and 2005 periods, respectively. This reflects comparable levels of estimates from the two surveys for three of the largest sources of income: Wages and salaries (largest source); Social Security and Railroad Retirement

Income; and self-employment income (for 2004 and 2005). The ratio of CE to CPS self-employment income increased significantly from 69 percent in 2003 to 100 percent in 2004. Also, some of the other sources of income were generally comparable between the two surveys: Pensions and annuities; and alimony, child support, and other regular financial support. Some differences in the estimates are expected because of the methodology differences between the two surveys described above and because the CPS is designed specifically to collect income data, whereas the CE is designed primarily to collect expenditure data. In addition, the CPS population is slightly greater than that of the CE. Some of the variation in the ratios reflects the difficulty of obtaining income information via household survey that is experienced by both the CE and CPS.

Text table 5. Comparison of aggregate expenditures for health care: Consumer Expenditure Survey and National Health Expenditures program, 2002-2005

Expenditure category	Aggregate consumer expenditures Consumer Expenditure Survey (in billions)				Ratio of Consumer Expenditure Survey to National Health Expenditures ¹			
	2002	2003	2004	2005	2002	2003	2004	2005
Health care, total ²	\$125.2	\$124.5	\$133.1	\$144.3	0.69	0.64	0.65	0.66
Medical commodities, total.....	60.6	60.3	62.6	68.2	.74	.69	.68	.71
Drugs and supplies.....	52.2	51.8	53.6	59.4	.75	.69	.68	.72
Medical equipment	8.4	8.5	8.9	8.7	.69	.66	.68	.64
Medical services, total.....	64.6	64.2	70.6	76.1	.65	.60	.62	.63
Professional services	54.7	56.2	60.0	65.0	.65	.63	.63	.65
Physicians services	16.5	16.6	17.0	18.1	.41	.39	.38	.38
Dental services	25.4	26.2	28.0	29.8	.79	.76	.77	.78
Other professional services.....	12.7	13.4	15.0	17.1	1.08	1.06	1.09	1.18
Hospital care	9.9	8.0	10.6	11.1	.63	.47	.57	.55

¹ The National Health Expenditures data are out-of-pocket expenditures.

² Excludes health insurance premiums, nonprescription vitamins, nursing home care, rental of medical equipment, and repair of medical equipment.

NOTE: Sums may not equal totals, due to rounding. Consumer Expenditure Survey categories have been grouped as needed to

match those used in the National Health Expenditures program.

SOURCE: The National Health Expenditures data used to obtain the ratios are from the U.S. Department of Health and Human Services, Centers for Medicare and Medicaid Services. Data are available online at <http://www.cms.hhs.gov/NationalHealthExpendData/downloads/tables.pdf>.

Text table 6. Comparison of money income before taxes: Consumer Expenditure Survey and Current Population Survey (CPS), 2003-2005

Income category	Aggregate consumer expenditures Consumer Expenditure Survey (in billions)			Ratio of Consumer Expenditure Survey to CPS ¹		
	2003	2004	2005	2003	2004	2005
Money income before taxes ²	\$5,870	\$6,300	\$6,857	0.88	0.91	0.93
Wage and salary income	4,753	5,023	5,433	.92	.94	.96
Self-employment income	247	350	443	.69	1.00	1.10
Social Security and railroad retirement income	382	401	431	.93	.93	.96
Unemployment, workers compensation, and veterans benefits	31	28	24	.34	.32	.26
Public assistance and Supplemental Security Income	27	25	30	.76	.69	.79
Pensions and annuities	264	279	290	.87	.88	.86
Interest, dividends, rents, royalties, estates and trusts	127	147	162	.41	.45	.45
Alimony, child support, and other regular financial support	40	48	45	.90	1.03	1.03

¹ Consumer Expenditure Survey data are for complete reporters of income for 2003.

² Excludes the value of food stamps, meals as pay, rent as pay, and other income from the Consumer Expenditure Survey and educational assistance and other income from the CPS.

NOTE: Sums may not equal totals due to rounding. CPS

categories have been grouped as needed to match those in the Consumer Expenditure Survey.

SOURCE: CPS data for 2003-2005 are from the U.S. Census Bureau Annual Demographic Survey, March Supplement, available on the Internet at <http://www.bls.census.gov/cps/ads/adsmain.htm>.