

Text table 7. Health care expenditures and shares by age of reference person, Consumer Expenditure Survey, 1984 and 1991

	All consumer units	Under 25	25-34	35-44	45-54	55-64	65 and over	65-74	75 and over
Total expenditures									
1984	\$21,975	\$13,461	\$22,294	\$28,214	\$28,696	\$23,401	\$13,941	\$15,842	\$11,122
1991	29,614	16,745	29,280	36,446	38,137	31,945	19,692	22,564	15,782
Health care, total									
1984	1,049	371	746	976	1,245	1,255	1,493	1,485	1,504
1991	1,554	361	1,030	1,488	1,727	1,846	2,257	2,300	2,197
Share of total expenditures (percent):									
1984	4.8	2.8	3.3	3.5	4.3	5.4	10.7	9.4	13.5
1991	5.2	2.2	3.5	4.1	4.5	5.8	11.5	10.2	13.9
Shares of health care budget (percent):									
Health care	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Health insurance									
1984	35.3	29.1	33.2	31.0	31.6	36.1	41.6	44.0	37.9
1991	42.2	39.9	40.5	39.2	36.7	40.6	49.2	47.0	52.4
Medical services									
1984	43.3	50.1	48.4	50.5	49.0	42.2	32.8	31.1	35.2
1991	35.7	36.3	40.5	42.3	40.9	36.3	25.7	29.2	20.7
Drugs									
1984	15.9	15.1	13.1	13.7	14.5	17.6	18.6	18.5	19.0
1991	16.2	15.5	13.3	12.2	15.3	18.4	19.7	18.3	21.7
Medical supplies									
1984	5.5	5.9	5.1	4.8	4.9	4.5	7.0	6.4	7.9
1991	5.9	8.3	5.7	6.3	7.1	4.5	5.4	5.6	5.2

share of the total health budget from 43 percent in 1984 to 36 percent in 1991. The CPI for medical services rose 68 percent over this period. These data suggest that HMO's and supplemental health insurance are covering services that were previously paid for out of pocket. However, medical service expenditures include fees for physician services, hospital rooms, and nursing home care that tend to fluctuate more than health insurance.

Health care expenditures make up a larger portion of the total budget of older consumer units (those age 65 and older) than of younger consumer units. These expenses account for almost 12 percent of total expenditures of those consumer units headed by someone age 65 or older and 2 percent of total expenditures of those consumer units headed by someone under age 25. Older households have less income, lower total expenditures, and more costly health care needs on average than the younger groups.

Within the health care budget, the older groups allocate a larger portion to health insurance and prescription drugs and a smaller portion to medical services than do the younger groups. Older households spent close to 50 percent of their total health care dollars on health insurance, whereas the youngest households (those under 25 years old) spent 40 percent. This difference is partially explained by differences in the percent reporting—93 percent of older consumer units reported health insurance expenditures and 19 percent of the youngest consumers units reported health insurance expenditures. Much of this gap is accounted for by Medicare expenditures: 86 percent of older consumer units and none of the youngest consumer units reported Medicare expenditures.

Comparisons with other data sources

As part of the evaluation of the survey results, BLS compares aggregate expenditure estimates obtained from the CE survey with alternative, independent sources of data. Comparisons described here use data integrated from the two survey components, Interview and Diary, unless otherwise noted.

Differences in concept and coverage require adjustments to both BLS data and the independent sources to permit comparison. With these adjustments, comparisons can be made for many categories of consumer spending. The degree of concordance varies by component, as noted in the tables. Data are not shown when differences in concept are so great as to make the comparison meaningless.

Personal Consumption Expenditures in the National Income and Product Accounts. Historically, the principal source of independent estimates used for these comparisons has been the Personal Consumption Expenditures (PCE) component of the National Income and Product Accounts, prepared by the Bureau of Economic Analysis (BEA) of the U.S. Department of Commerce. Because the BEA estimates are expenditure aggregates that cover the total population, comparisons are made on the basis of aggregates rather than averages.

The PCE estimates represent the market value of goods and services purchased by all persons. The estimates are derived by complex methods which trace the flow of goods and services through the economy. Total expenditures of persons are defined to include expenditures of individuals and nonprofit institutions. Expenditures of nonprofit in-

Text table 8. Comparison of aggregate expenditures for selected categories of consumption: Consumer Expenditure Survey and Personal Consumption Expenditures, 1988-91

Item	Consumer Expenditure Survey (in billions)				Ratio of CE to PCE			
	1988	1989	1990	1991	1988	1989	1990	1991
Food	349	390	408	410	0.74	0.78	0.77	0.75
Food at home	202	229	240	259	.67	.71	.70	.74
Food away from home ¹	146	161	168	151	.85	.89	.88	.76
Alcoholic beverages	25	27	28	29	.39	.40	.39	.39
Housing								
Rent, utilities, fuels, and public services ²	271	285	297	305	.99	.99	.99	.97
Telephone	51	54	57	61	1.01	1.05	1.08	1.11
Household operations ³	20	22	21	23	.95	.95	.86	.96
Household furnishings and equipment	140	145	149	159	.71	.69	.68	.73
Household textiles	9	10	10	10	.46	.49	.45	.46
Furniture	31	30	30	29	.91	.81	.85	.86
Floor coverings	7	8	10	12	.68	.70	.81	1.02
Major appliances	18	16	16	15	.75	.63	.63	.60
Miscellaneous household equipment ⁴	74	80	83	93	.69	.69	.68	.74
Apparel and services	142	152	157	170	.81	.81	.80	.86
Transportation	367	370	369	382	.79	.75	.72	.78
Vehicle purchases ⁵	201	196	182	186	.92	.86	.82	.92
Gasoline and motor oil	88	94	102	97	1.02	.98	.94	.92
Other vehicle expenses ⁶	53	54	58	70	.46	.45	.46	.54
Public transportation	25	25	27	28	.54	.53	.53	.55
Entertainment	121	130	129	136	.66	.65	.61	.63
Fees and admissions	34	36	36	37	.86	.86	.79	.80
Televisions, radios, and sound equipment	39	41	44	46	.66	.63	.64	.64
Pets, toys, and playground equipment	22	24	27	26	.69	.69	.71	.67
Other entertainment supplies, equipment	53	57	44	53	.50	.50	.38	.45
Personal care products and services	32	35	35	39	.61	.63	.59	.63
Reading	18	19	19	20	.50	.50	.46	.48
Tobacco products and smoking supplies	23	25	27	27	.63	.62	.61	.57
Miscellaneous ⁷	30	33	33	33	.35	.34	.32	.31

¹ School lunches and meals as pay are excluded.

² Includes rent for tenant-occupied dwelling units and lodging away from home and at school. Rent in the CE survey is contract rent, which includes utilities for some renters. In PCE, data are for space rent, which excludes charges for utilities. The CE survey covers direct costs of utilities and fuels by homeowners and renters. PCE data cover total expenditures for utilities and fuels even if paid by landlords.

³ Consumer expenditure amounts for babysitting, daycare centers, and care of invalids or the elderly are excluded.

⁴ Various subcategories were combined to approximate equivalent content.

⁵ The PCE concept of dealer margin as the purchase value of used cars could not be matched. CE survey data on vehicle purchases, trade-ins, and sales were combined to obtain an approximate total for new and used vehicles.

⁶ Includes vehicle rentals except aircraft rentals, maintenance and repairs, and other vehicle charges except vehicle licenses and registration.

⁷ Consumer expenditure for other properties, interest on home equity line of credit, and finance charges are excluded.

Note: Sums may not equal totals due to rounding. Home ownership costs, insurance estimates, capital improvements, health care estimates, finance charges, education expenditures, and cash contributions are excluded from the comparisons.

Source: PCE data used in the comparisons are from unpublished detailed tabulations of the National Income and Product Accounts of the U.S. Department of Commerce, Bureau of Economic Analysis as of July 1992. These data include 1982 benchmark estimates. For more information on PCE see U.S. Department of Commerce, Economics and Statistics Administration, Bureau of Economic Analysis, *National Income and Product Accounts of the United States: Volume 2, 1959-88 (1992)*, and *Survey of Current Business*, July issues, table 2.4, 1989-92.

stitutions are not distributed among individual goods. Instead, they are included in specific service categories—primarily medical care, education and research, and religious and welfare activities—categories which are not compared with consumer expenditures. While the PCE estimates are not directly subject to the quantifiable sampling errors found in household surveys, they are subject to errors in the source data and to difficulties in applying complex procedures for allocating these data among the final demand sectors.

BEA conducts periodic, comprehensive revisions of the NIPA to update methods of estimation and data from the Census Bureau's quinquennial censuses and other sources used in the accounts. PCE estimates from different revisions sometimes differ by large amounts and as a result, revisions to PCE can affect comparisons with consumer expenditures substantially. For example, the PCE estimate for gasoline in 1990, which is based on the 1982

benchmark estimate (the most recent revision), is \$108.5 billion, 16 percent larger than the previous estimate of \$93.7 billion which was based on the 1977 benchmark estimate. This results in a 14-percent decline in the ratio of consumer expenditures to PCE, from 1.08 to 0.94. In general, the ratios in this comparison cannot be compared with previously published ratios which were obtained using PCE estimates derived from earlier benchmarks.

Text table 8 shows aggregates for selected expenditure categories for 1988 through 1991 using integrated CE survey data, adjusted for comparability with BEA data. The resulting ratios indicate that the CE survey estimates for the major categories of consumption are lower than the PCE estimates. For several major items, the relationship between the two series has been generally constant over time. These items include: Food; alcoholic beverages; rent, utilities, fuels, and public services; apparel; and transportation, to name a few.

Text Table 9. Comparison of aggregate expenditures for food, Consumer Expenditure Diary Survey, Personal Consumption Expenditures (PCE), *Supermarket Business*, and *Progressive Grocer*, 1991

Food categories	Diary survey aggregate expenditures (in billions)	Ratio of Diary to PCE	Ratio of Diary to <i>Supermarket Business</i>	Ratio of Diary to <i>Progressive Grocer</i>
Food at home, total	\$255	0.74	1.10	1.22
Cereals and cereal products	14	.69	1.09	1.43
Bakery products	25	.66	1.06	1.12
Meat including poultry	58	.83	1.07	1.07
Fish and seafood	8	1.20	1.19	2.68
Eggs	3	1.17	2.04	1.44
Fresh milk and cream	13	1.01	1.74	1.86
Other dairy products	16	.76	1.38	1.32
Fresh fruits and vegetables	25	.92	.73	.92
Processed fruits and vegetables	16	.59	1.06	1.37
Sugar and other sweets	10	.37	1.32	2.48
Fats and oils	7	.76	1.09	1.74
Nonalcoholic beverages	22	.53	1.02	1.20
Miscellaneous prepared foods	37	.85	1.28	1.16

Source: BLS Consumer Expenditure Survey, *Supermarket Business*, Consumer Expenditure Study (September 1991); and *Progressive Grocer* (July 1991).

Detailed food comparisons. *Supermarket Business* conducts a comprehensive annual survey of food manufacturers, packers, wholesalers, and retailers to construct a detailed picture of grocery store sales by product line. Total grocery store sales for the study are based on U.S. Bureau of the Census estimates, and include sales by specialty food stores. Estimates are also available annually from a similar study by *Progressive Grocer*. The *Progressive Grocer* data are limited to stores with annual food sales of \$2 million or more, accounting for only 75 to 80 percent of grocery store food sales.

Text table 9 compares the industry data, as well as PCE data, with detailed CE Diary survey estimates of food expenditures. These comparisons show that the estimates for 1991 CE food at home expenditures are generally lower than PCE but that the CE estimates are almost always higher than those of *Supermarket Business* and *Progressive Grocer*. In the case of the *Progressive Grocer* estimates, this is due in part to the truncated store sample, as noted above. The results shown in text table 9 for 1991 are, in general, similar to those from previous years.

Residential Energy Consumption Survey. The Energy Information Administration of the U.S. Department of Energy (DOE) publishes data collected in the Residential Energy Consumption Survey (RECS) on expenditures for electricity, natural gas, fuel oil and kerosene, and liquified petroleum gas. The data are published triennially. The RECS focuses on obtaining detailed data from energy suppliers on residential energy use. To make the comparison, time periods and fuel types were matched to the extent possible. Fuel oil and kerosene are not compared because of differences in how the items are categorized and the inclusion of expenditures for wood fuel in RECS.

The data in text table 10 show aggregate expenditures and ratios from the two surveys for periods back to 1984. Some difference between the CE survey and RECS is to be

expected because imputations are made in the DOE surveys for money value of utilities included in residential rents. In addition, the RECS covers military households who live on base, but the CE survey does not include such households. The 1990 data show that consumer expenditure estimates for natural gas and electricity combined are very close to those from the Energy Department survey. The consumer expenditure estimate for electricity expenditures, which is 3 percent higher than the RECS estimate, more than offset the lower expenditure amount for natural gas.

National Health Accounts. The Health Care Financing Administration (HCFA) of the U.S. Department of Health and Human Services publishes total aggregate health costs of the United States in the National Health Accounts (NHA). Total health care costs include payments from all sources, public and private. The CE survey data are compared with the out-of-pocket expenditures in the NHA. Out-of-pocket expenditures for health care include copayment and deductible amounts required by third party payers (governments, commercial insurance companies, and other nonhousehold sources) and medical care services and products not covered by third parties. To derive the out-of-pocket estimates, HCFA uses CE data along with data from administrative and industry sources. For the comparisons, estimates of insurance premiums are based on detailed data in NHA on the financing of health care.

Text table 11 shows a comparison of aggregate out-of-pocket health care expenditures from the CE survey and NHA. Expenditures by patients in nursing homes, which are not covered in the CE survey, are excluded from the comparison. Because of methodological changes in NHA, ratios in the comparison below should not be compared with those published in earlier bulletins.

As reported in the CE survey, aggregate health care expenditures were \$150 billion in 1991, or about 73 percent