5"Wall Street's Credibility Gap," Business Week, Nov. 23, 1987, pp. 92–99; Kenneth N. Gilpin, "1,000 Jobs To Be Cut At Kidder," The New York Times, Dec. 5, 1937, pp. 37 and 39; "The Big Chill on Wall Street," Business Week, Dec. 7, 1987, pp. 54–56; Kenneth N. Gilpin, "Wall Street Gripped by Layoff Fear," The New York Times, Dec. 7, 1987, p. 5; Steve Swartz, "Kidder Layoffs Bolster the View More Are Likely," The Wall Street Journal, Dec. 7, 1987, p. 4; G. Christian Hill, "Schwab to Curb Expansion, Tighten Belt Because of Post-Crash Trading Decline," The Wall Street Journal, Dec. 7, 1987, p. 4; and "Boom Ends for Financial Services Firms," The Wall Street Journal, Dec. 11, 1987, p. 6.

<sup>6</sup>Cooper and Fraser, Banking Deregulation, p. 193.

<sup>7</sup>Two significant pieces of financial legislation were passed in the early 1980's: "Depository Institutions Deregulation and Monetary Control Act of 1980" and the "Garn-St Germain Depository Institutions Act of 1982." These laws allowed savings and loans to invest part of their assets in consumer loans and to offer demand deposits, eliminated interest ceilings on deposits, authorized money market accounts for banks and savings and loans, and took other steps to bolster those industries. See Cooper and Fraser, *Banking Deregulation*, pp. 20–23.

\*Data for 1982 could not be used to make comparisons because of the adoption of a Standard Occupational Classification-based coding system by the CPS in 1983. For further information on the change in occupational classification, see Gloria Peterson Green, Khoen tan Dinh, John A. Priebe, and Ronald R. Tucker, "Revisions in the Current Population Survey Beginning in January 1983," *Employment and Earnings*, February 1983, pp. 7–15.

"Alan Gart, Banks, Thrifts, and Insurance Companies Surviving the 1980's (Lexington, MA. D.C. Heath and Co., 1985), p. 8.

<sup>10</sup>George T. Silvestri and John M. Lukasiewicz, "A look at occupational employment trends to the year 2000," *Monthly Labor Review*, September 1987, pp. 46-63.

# BLS to publish quarterly data from Consumer Expenditure Survey

MAUREEN BOYLE

Expenditures for many consumer items vary by season. For example, purchases in the fourth quarter are higher for many apparel and entertainment items due to holiday spending. Specifically, the average expenditure for jewelry and watches in the fourth quarter is double that in any other quarter, and television, radio, and sound equipment purchases are a third higher. Quarterly expenditure data are useful for discerning these seasonal movements, as well as for assessing economic changes more quickly. Examining quarterly expenditures provides information that may be masked in annual results.

The Interview portion of the Consumer Expenditure Surveys is a quarterly survey. In the past, however, annual estimates have been published based on one or two years of

Maureen Boyle is an economist in the Office of Prices and Living Conditions, Bureau of Labor Statistics.

data. In the fall of this year, with the release of survey results from second-quarter 1987, the Bureau will begin publishing quarterly data. The quarterly estimates are presented at annual rates. That is, the values refer to expenditures in the particular quarter but are multiplied by 4. This facilitates analysis in relating expenditures to income and comparisons with earlier annual data. Tables 1 and 2, based on data from the first quarter of 1987, illustrate the type of information that will be available in the new quarterly release.

With the quarterly publication of data, the estimates will be available to users sooner than in the past. However, there are limitations to these estimates. First, for some analytical uses, seasonally adjusted data are desired. BLS is currently working on seasonally adjusting the expenditure survey data. An approximation of seasonal adjustment can be obtained by comparing any quarter with the same quarter of a year ago or earlier years. The analysis of trend data presented in this report follows this practice.

Second, there are fewer reports in a quarter for infrequently purchased items than there are for a year. For example, the percent of consumer units<sup>1</sup> reporting vehicle purchases is approximately 6 percent per quarter. On the other hand, gasoline and motor oil, which is a recurring expense, is reported by approximately 88 percent of the consumer units interviewed per quarter. A sufficient level of reporting is required in order to obtain statistically reliable estimates. Therefore, the tables based on quarterly data show less detail than those based on annual data.<sup>2</sup> For the same reason, the information on characteristics of consumer units is also shown with less detail than that released based on a year's worth of data. For example, units with reference persons<sup>3</sup> ages 25 to 34 and 35 to 44 have been collapsed into one age group, 25 - 44.

#### Seasonal variations

When comparing unadjusted quarterly data, seasonal variations become apparent. The top portion of table 3 shows each expenditure as a share of total expenditures for the period 1984 to the first quarter of 1987. A sample of the seasonal changes that can be observed in the Consumer Expenditure Survey data are discussed below. Chart 1 highlights some of these changes.

- Owned dwellings increased as a share of total expenditures in each of the fourth quarters as compared to the first three quarters. Most of this increase is due to the fact that many consumers pay their property taxes at the end of the calendar year.
- Because of the holidays, entertainment and apparel increased as a share of total expenditures in all of the fourth quarters examined (chart panel 4). In dollar terms, the average expenditure for jewelry and watches

is at least twice as high in the fourth quarter as in other quarters. Expenditures for other apparel items, such as coats and sweaters, also are higher in the fourth quarter. As a share of total expenditures, total entertainment—which includes televisions, radios, sound equipment, and photographic equipment and supplies, as well as admissions—is about 25 percent higher in the fourth quarter than in the three preceding quarters of the year.

- Utilities, fuels, and public services increase as a share of total expenditures in the first quarter, when the weather is coldest (chart panel 1).
- Transportation as a share of total expenditures peaks in the second quarter, largely because of vehicle purchases (chart panel 2). However, the average expenditures for public transportation, which includes airline fares and leased and rented vehicles, are higher during the third quarter when most families take vacations.
- During the busy summer months of July, August, and September, families eat out more often. This is reflected in

both the increase in dollars spent and in the share of total expenditures allocated towards food away from home (chart panel 3).

### Year-to-year changes

The bottom portion of table 3 shows percent changes in selected types of expenditures from the same quarter a year earlier, for the period 1984 to first-quarter 1987. Among the noteworthy findings:

• Expenditures for utilities, fuels, and public services decreased slightly in the first two quarters of 1985, compared to the same quarters in 1984. There was a slight increase in expenditures for the third and fourth quarters of 1985 as against the respective quarters of 1984. For 1986, expenditures again decreased from the year-earlier period in the first two quarters, increased in the third quarter, and decreased in the fourth quarter. A 2-percent decrease in these expenditures was

Table 1. Selected characteristics and yearly expenditures of all consumer units, by quintiles of before-tax income, average annualized data for first-quarter 1987

Item		Complete reporters of income								
	All consumer units	Total	Lowest 20 percent	Second 20 percent	Third 20 percent	Fourth 20 percent	Highest 20 percent	Incomplete reporters of income		
Number of consumer units	22.225	0.4.570	40.005	16.906	16.934	16.911	16,934	9,295		
(in thousands)  Number of sample interviews	93,865 11,779	84,570 10,584	16,885 2,047	2,057	2,098	2,174	2,208	1,195		
Consumer unit characteristics										
Income before taxes1	\$26,421	\$26,421	\$3,912	\$11,297	\$20,054	\$32,429	\$64,332	(2)		
Size of consumer unit	2.6	2.6	1.9	2.2	2.6	3.0	3.2	2.5		
Age of reference person  Number in consumer unit:	46.9	46.8	49.9	50.9	44.9	42.7	45.3	48.2		
Earners	1.4	1.4	.7	1.0	1.4	1.8	2.1	1.2		
Vehicles	2.0	2.0	1.0	1.4	2.0	2.6	2.9	1.9		
Children under 18	.7	.7	.5	.6	.7	.9	.9	.6 .3		
Persons 65 and over	.3	.3	.4	.5	.3	.1	.1	.3		
Total expenditures	\$21,523	\$21,852	\$10,347	\$13,529	\$18,435	\$25,556	\$41,351	\$18,531		
Food	3,362	3,339	2,037	2,453	3,097	3,880	5,224	3,566		
Housing	6,827	6,822	3,864	4,701	5,768	7,465	12,299	6,876		
Shelter	3,880	3,852	2,159	2,660	3,289	4,197	6,948	4,135		
Owned dwellings	2,193	2,169	747	954	1,390	2,502	5,247	2,415		
Rented dwellings	1,316	1,314	1,232	1,574	1,693	1,331	740	1,339		
Other lodgingUtilities, fuels, and public	370	369	180	131	207	364	961	381		
services	1,812	1,806	1,269	1,508	1,686	2,033	2,531	1,871		
equipment	1,135	1,164	437	533	793	1,235	2,820	870		
Apparel and services	865	862	380	460	717	941	1,808	895		
Transportation	3,966	4,034	1,524	2,425	3,478	5,273	7,461	3,344		
Gasoline and motor oil	832	832	430	600	813	1,064	1,251	831		
Other transportation expenses	3,134	3,202	1,094	1,825	2,665	4,209	6,211	2,513		
Health care	1,038	1,051	638	985	1,034	1,111	1,485	926		
Entertainment	899	913	425	451	821	1,069	1,799	772		
Miscellaneous and all other expenses	4,566	4,831	1,478	2,053	3,520	5,817	11,274	2,153		

¹Income values are derived from 'complete income reporters' only. In general, these are consumer units which provided values for at least one of the major sources of their income, such as wages and salaries, self-employment income, and Social Security income. (Please note that even complete income reporters may not have provided a full accounting of all income from all sources.)

<sup>&</sup>lt;sup>2</sup>Not available.

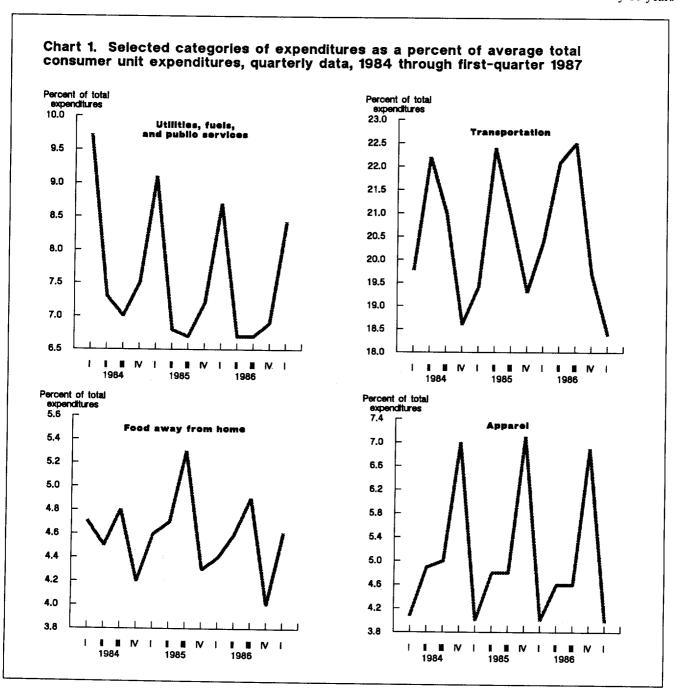
reported in the first quarter of 1987, similar to the year-to-year decline noted for the first quarter of 1986.

- Expenditures on owned dwellings and rented dwellings increased anywhere from 7 percent to 14 percent over the year-earlier level each quarter from 1984 to 1985. More moderate increases occurred between 1985 and 1986, with the exception of the last quarter of 1986. In that quarter, expenditures on owned dwellings decreased 1.2 percent, compared to the same quarter in 1985.
- Gasoline and motor oil expenditures decreased for every quarter with the exception of the last quarter in 1985.
   The most notable decreases for the period occurred from

the second quarter of 1986 through the first quarter of 1987. These significant decreases ranged from 10 percent to 17 percent, which reflected falling gasoline prices during the same period as measured by the Consumer Price Index.

### Description of the survey

The principal objective of the Consumer Expenditure Surveys is to collect data that provide a continuous flow of information on the buying habits of American consumers. The survey had been conducted about every 10 years



in the past, but has been ongoing since 1980, with rotating panels of participants.

The survey, which is conducted by the Bureau of the Census for the Bureau of Labor Statistics, consists of two components: (1) a Diary or recordkeeping survey completed by respondents for two consecutive 1-week periods, and (2) an Interview survey in which the expenditures of consumer units are obtained in five interviews conducted every 3 months. Each component of the survey queries an independent sample of consumer units that is representative of the U.S. population. The Interview sample is selected on a rotating panel basis, targeted at 5,000 consumer units each quarter. As indicated earlier, the data in this article and those in the forthcoming quarterly release are based on the Interview survey.

The Interview survey is designed to obtain data on the types of expenditures and income that respondents can be expected to recall for a period of 3 months or longer. These include large expenditures, as for property, automobiles, and major appliances, or expenditures that occur on a regular basis, such as rent, utility payments, or insurance premiums. The Interview survey covers approximately 95 percent of all expenditures.<sup>4</sup>

The data presented here and in the new quarterly release should be interpreted with care. The quarter-toquarter changes are more volatile than year-to-year changes because of seasonal variation and smaller sample sizes. The expenditures are averages for all consumer units with the characteristics indicated, even if few units actually had expenses for a particular item in the reference period. Therefore, the average may be considerably lower than the expense incurred by consumer units that actually purchased the item.

The less frequently an item is purchased, the greater the difference between the average for all consumer units and the average for those purchasing. An individual consumer unit may spend more or less than the average, depending on its particular characteristics, tastes, and preferences. But even within groups with similar characteristics, the distribution of expenditures varies substantially. These points should be considered when relating reported averages to individual circumstances.

Users should also keep in mind that the prices for many goods and services have risen since the period represented by the data shown here. For example, rent as measured by the Consumer Price Index rose about 3.8 percent between March 1987 and April 1988.

In addition, sample surveys are subject to two types of errors. Sampling errors occur because the data are collected from a representative sample rather than the entire population. Sampling errors for quarterly data are considerably higher than those for annual data, depending on the expenditure category. Nonsampling errors result from the inability or unwillingness of respondents

Table 2. Selected characteristics and yearly expenditures of all consumer units, by age of reference person, average annualized data for first-quarter 1987

Na	All consumer units	Age of reference person					
ltem	All consumer units	Under 25	25-44	45–64	65 and over		
Number of consumer units (in thousands)	93,865	8,610	39,388	26.747	19.120		
Number of sample interviews	11,779	1,069	5,053	3,343	2,314		
Consumer unit characteristics							
ncome before taxes¹	\$26,421	\$11,983	\$30,548	\$32,550	\$16,224		
Size of consumer unit	2.6	1.8	3.1	2.6	1.7		
Age of reference person	46.9	21.5	34.1	54.4	74.1		
Earners	1.4	1.2	1.6	1.7	.4		
Vehicles	2.0	1.1	2.1	2.4	1.3		
Children under 18	.7	.4	1.3	.4	1 1.1		
Persons 65 and over	.3	.0	0.0	.1	1.3		
Total expenditures	\$21,523	\$13,014	\$24,305	\$25.623	\$13.888		
Food	3.362	2.067	3,749	3.880	2,421		
Housing	6.827	3,921	8,172	7,429	4,522		
Shelter	3.880	2,608	4.877	3.978	2,261		
Owned dwellings	2,193	349	2.822	2.641	1,102		
Rented dwellings	1,316	2.074	1,705	790	911		
Other lodging	370	185	350	546	248		
Utilities, fuels, and public services	1.812	838	1,862	2.183	1,630		
Household operations and housefurnishings	.,	300	,,552		',,555		
and equipment	1,135	476	1,433	1,269	631		
Apparel and services	865	620	1,005	1.015	477		
Transportation	3,966	2.884	4.486	4.933	2.028		
Gasoline and motor oil	832	561	937	1.005	493		
Other transportation expenses	3,134	2,323	3,549	3,928	1,535		
Health care	1,038	306	878	1,176	1,507		
Entertainment	899	578	1,075	1,037	490		
Miscellaneous and all other expenses	4,566	2,637	4,940	6,154	2,444		

Income values are derived from "complete income reporters" only; see table 1, footnote 1.

Table 3. Percent distribution of total expenditures and year-to-year changes in expenditure levels, by expenditure category, first-quarter 1984 to first-quarter 1987

Category		1984				1985			1986				198
		li .	(11	IV	I	II	111	IV	I	П	III	IV	ī
	<b>-</b>		<b>,</b>	,	Perc	ent distrit	oution of to	ıtal expen	ditures				
Total expenditures	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.
Food	16.4	15.9	15.8	14.8	15.8	15.4	15.7	14.3	15.2	15.0	45.0	400	
Food at home	11.7	11.4	11.0	10.6	11.2	10.7	10.4	10.0	10.8	15.3	15.0	13.9	15.
Food away from home	4.7	4.5	4.8	4.2	4.6	4.7	5.3	4.3	4.4	4.6	4.9	4.0	4
Housing	30.9	29.0	29.3	31.0	30.6	29.0	29.4	31.3	30.9	29.7	29.8	30.9	31
Shelter	16.3	15.9	16.8	17.7	16.9	16.5	17.2	18.4	17.4	17.2	17.5	18.1	18
Rented dwellings	9.6 5.1	9.3	9.7	10.9	9.9	9.4	9.9	11.5	9.9	9.7	9.9	11.0	10
Other lodging	1.6	5.2 1.5	5.0 2.1	5.2 1.7	5.4	5.3	5.2	5.4	5.8	5.6	5.5	5.5	6
Utilities, fuels, and public services	9.7	7.3	7.0	7.5	1.6 9.1	1.7 6.8	2.1	1.6	1.7	1.8	2.2	1.6	1
Household operations	1.4	1.5	1.6	1.5	1.5	1.7	6.7	7.2	8.7 1.4	6.7	6.7	6.9	8
Housefurnishings and equipment	3.5	4.2	3.9	4.3	3.1	4.0	3.9	4.3	3.4	1.7 4.2	1.7 3.8	1.5	1
Apparel and services	4.1	4.9	5.0	7.0	4.0	4.8	4.8	7.1	4.0	4.6	1	4.5	3
Transportation	19.8	22.2	21.0	18.6	19.4	22.4	20.9	19.3		1	4.6	6.9	4
Vehicle purchases, total	8.0	10.2	8.9	7.6	8.2	10.8	9.4	19.3 8.4	20.4 9.2	22.1 10.8	22.5	19.7	18
Gasoline and motor cil	5.2	5.2	5.2	4.7	4.7	4.8	4.8	4.4	4.5	4.3	11.6	9.6	7
Other transportation expenses	6.6	6.8	7.0	6.3	6.6	6.8	6.7	6.5	6.7	7.0	7.1	6.6	7
lealth care	4.7	4.9	4.7	4.4	4.6	4.8	4.7	4.5	4.8	5.0	4.6		1
Entertainment	4.0	4.4	4.5	5.5	4.4	4.8	4.7	5.6	4.2		1	4.4	4
Fees and admissions Televisions, radios, and sound	1.5	1.5	1.7	1.3	1.5	1.4	1.6	1.3	1.3	4.8 1.5	4.4 1.5	5.6 1.1	1
Other equipment and consists	1.3	1.2	1.4	1.9	1.5	1.4	1.4	2.1	1.5	1.5	1.5	2.0	1
Other equipment and services	1.2	1.7	1.5	2.3	1.5	2.0	1.7	2.2	1.4	1.8	1.4	2.5	1
Personal care	1.0	.9	.9	.9	.9	.9	.9	.9	.9	.9	9.	.9	1
fiscellaneous and other expenses	19.1	17.7	18.7	17.8	20.2	17.9	18.8	17.1	19.5	17.6	18.2	17.6	20
							Percent ch	anne fron	Ь	erter one	oor oorlin	<del>-</del>	1
Total expenditures								nange from	same qua			r	T
Total expenditures					5.5	7.0	5.2	7.4	same qua	-0.1	rear earlie	<del>-</del>	·
Food Food at home			•••••		1.7	7.0 3.5	5.2 4.6	7.4 4.1	2.3 -1.9	-0.1 8		r	1.
Food Food at home			•••••		1.7 1.5	7.0 3.5 .4	5.2 4.6 4	7.4 4.1 1.7	2.3 -1.9 -2.1	-0.1 8 2	3.6 9 .8	3.0 3	1.
Food		•••••••		••••••	1.7 1.5 2.4	7.0 3.5 .4 11.2	5.2 4.6 4 16.1	7.4 4.1 1.7 10.2	2.3 -1.9 -2.1 -1.3	-0.1 8 2 -2.1	3.6 9 .8 -4.1	3.0 3 .9 -3.2	1.4.3.
Food	***************************************				1.7 1.5 2.4 4.5	7.0 3.5 .4 11.2 7.1	5.2 4.6 4 16.1 5.8	7.4 4.1 1.7 10.2 8.3	2.3 -1.9 -2.1 -1.3 3.3	-0.1 8 2 -2.1 2.3	3.6 9 .8 -4.1 4.7	3.0 3 .9 -3.2 1.9	1. 4. 3. 6. 4.
Food Food at home Food away from home dousing Shelter Owned dwellings					1.7 1.5 2.4 4.5 9.5	7.0 3.5 .4 11.2 7.1 10.5	5.2 4.6 4 16.1 5.8 7.9	7.4 4.1 1.7 10.2 8.3 11.8	2.3 -1.9 -2.1 -1.3 3.3 5.2	-0.1 8 2 -2.1 2.3 4.2	3.6 9 .8 -4.1 4.7 5.4	3.0 3 .9 -3.2 1.9	1 4 3 6 4 5
Food Food at home Food away from home Housing Sheiter Owned dwellings Rented dwellings					1.7 1.5 2.4 4.5 9.5 9.0	7.0 3.5 .4 11.2 7.1 10.5 8.6	5.2 4.6 4 16.1 5.8 7.9 7.1	7.4 4.1 1.7 10.2 8.3 11.8 13.7	2.3 -1.9 -2.1 -1.3 3.3 5.2 2.2	-0.1 8 2 -2.1 2.3 4.2 2.6	3.6 9 .8 -4.1 4.7 5.4 4.2	3.0 3 .9 -3.2 1.9 .9 -1.2	1 4 3 6 4 5 4
Food Food at home Food away from home Housing Shelter Owned dwellings Rented dwellings Other lodging					1.7 1.5 2.4 4.5 9.5	7.0 3.5 .4 11.2 7.1 10.5	5.2 4.6 4 16.1 5.8 7.9	7.4 4.1 1.7 10.2 8.3 11.8 13.7	2.3 -1.9 -2.1 -1.3 3.3 5.2 2.2	-0.1 8 2 -2.1 2.3 4.2 2.6 6.6	3.6 9 .8 -4.1 4.7 5.4 4.2 8.3	3.0 3 .9 -3.2 1.9 .9 -1.2 4.8	1 4 3 6 4 5 4
Food Food at home Food away from home dousing Shelter Owned dwellings Rented dwellings Other lodging Utilities, fuels, and public services					1.7 1.5 2.4 4.5 9.5 9.0 12.2 4.1 8	7.0 3.5 .4 11.2 7.1 10.5 8.6 8.8 28.4 -1.3	5.2 4.6 4 16.1 5.8 7.9 7.1 9.1	7.4 4.1 1.7 10.2 8.3 11.8 13.7	2.3 -1.9 -2.1 -1.3 3.3 5.2 2.2	-0.1 8 2 -2.1 2.3 4.2 2.6	3.6 9 .8 -4.1 4.7 5.4 4.2 8.3 4.3	3.0 3 .9 -3.2 1.9 -1.2 4.8 3.6	1 4 3 6 4 5 4 6 3
Food Food at home Food away from home dousing Shelter Owned dwellings Rented dwellings Other lodging Utilities, fuels, and public services Household operations					1.7 1.5 2.4 4.5 9.5 9.0 12.2 4.1 8 12.3	7.0 3.5 .4 11.2 7.1 10.5 8.6 8.8 28.4 -1.3 25.2	5.2 4.6 4 16.1 5.8 7.9 7.1 9.1 9.1 1.2 5.5	7.4 4.1 1.7 10.2 8.3 11.8 13.7 11.1 .8 3.2 -1.9	2.3 -1.9 -2.1 -1.3 3.3 5.2 2.2 10.2 7.5	-0.1 8 2 -2.1 2.3 4.2 2.6 6.6 6.2	3.6 9 .8 -4.1 4.7 5.4 4.2 8.3	3.0 3 .9 -3.2 1.9 .9 -1.2 4.8	1 4 3 6 4 5 4 6 3 -2
Food at home Food away from home Housing Shelter Owned dwellings Rented dwellings Other lodging Utilities, fuels, and public services Household operations Housefurnishings and equipment					1.7 1.5 2.4 4.5 9.5 9.0 12.2 4.1 8 12.3 -7.4	7.0 3.5 .4 11.2 7.1 10.5 8.6 8.8 28.4 -1.3 25.2 2.5	5.2 4.6 4 16.1 5.8 7.9 7.1 9.1 9.1 1.2	7.4 4.1 1.7 10.2 8.3 11.8 13.7 11.1 .8 3.2	2.3 -1.9 -2.1 -1.3 3.3 5.2 2.2 10.2 7.5 -2.1	-0.1 8 2 -2.1 2.3 4.2 2.6 6.6 6.2 9	3.6 9 .8 -4.1 4.7 5.4 4.2 8.3 4.3 4.1	3.0 3 .9 -3.2 1.9 -1.2 4.8 3.6 9	1 4 3 6 4 5 4 6 3 -2 11
Food at home Food away from home Food away from home Housing Shelter Owned dwellings Rented dwellings Other lodging Utilities, fuels, and public services Household operations Housefurnishings and equipment					1.7 1.5 2.4 4.5 9.5 9.0 12.2 4.1 8 12.3 -7.4 3.9	7.0 3.5 .4 11.2 7.1 10.5 8.6 8.8 28.4 -1.3 25.2	5.2 4.6 4 16.1 5.8 7.9 7.1 9.1 9.1 1.2 5.5	7.4 4.1 1.7 10.2 8.3 11.8 13.7 11.1 .8 3.2 -1.9	2.3 -1.9 -2.1 -1.3 3.3 5.2 2.2 10.2 7.5 -2.1 -7.4	-0.182 -2.1 2.3 4.2 2.6 6.6 6.29 -4.1	3.6 9 .8 -4.1 4.7 5.4 4.2 8.3 4.3 4.1 8.2	3.0 3 .9 -3.2 1.9 .9 -1.2 4.8 3.6 9 11.3	1. 4. 3. 6. 4. 5. 4. 6. 3. -2. 11.
Food at home Food away from home Food away fro					1.7 1.5 2.4 4.5 9.5 9.0 12.2 4.1 8 12.3 -7.4 3.9 3.4	7.0 3.5 .4 11.2 7.1 10.5 8.6 8.8 28.4 -1.3 25.2 2.5 5.0 7.6	5.2 4.6 4 16.1 5.8 7.9 7.1 9.1 9.1 1.2 5.5 4.7	7.4 4.1 1.7 10.2 8.3 11.8 13.7 11.1 8 3.2 -1.9 6.4	2.3 -1.9 -2.1 -1.3 3.3 5.2 2.2 10.2 7.5 -2.1 -7.4 13.6	-0.1 8 2  -2.1  2.3  4.2  2.6  6.6  6.2 9  -4.1  2.8	3.6 9 .8 -4.1 4.7 5.4 4.2 8.3 4.3 4.1 8.2 1.2	3.0 3 .9 -3.2 1.9 -1.2 4.8 3.6 9 11.3 7.8 1.1	1 4 3 6 4 5 4 6 3 -2 11 11. 2
Food at home Food away from home Housing Shelter Owned dwellings Rented dwellings Other lodging Utilities, fuels, and public services Housefurnishings and equipment Housefurnishings and					1.7 1.5 2.4 4.5 9.5 9.0 12.2 4.1 -8 12.3 -7.4 3.9 3.4 7.3	7.0 3.5 .4 11.2 7.1 10.5 8.6 8.8 4 -1.3 25.2 2.5 5.0 7.6 12.5	5.2 4.6 4 16.1 5.8 7.9 7.1 9.1 9.1 1.2 5.5 4.7 .8 4.8 11.5	7.4 4.1 1.7 10.2 8.3 11.8 13.7 11.1 .8 3.2 -1.9 6.4 9.0 11.8 19.6	2.3 -1.9 -2.1 -1.3 3.3 5.2 2.2 10.2 7.5 -2.1 -7.4 13.6 1.9	-0.1 82 -2.1 2.3 4.2 2.6 6.6 6.29 -4.1 2.8 -5.9	3.6 9 .8 -4.1 4.7 5.4 4.2 8.3 4.3 4.1 8.2 9	3.0 3 .9 -3.2 1.9 .9 -1.2 4.8 3.6 9 11.3 7.8 1.1	1 4 3 6 4 5 4 6 3 -2 11 11. 2. -8
Food at home Food at home Food away from home Food away from home Food away from home Food away from home Shelter Owned dwellings Rented dwellings Other lodging Utilities, fuels, and public services Household operations Housefurnishings and equipment Expared and services Fransportation Vehicle purchases, total Gasoline and motor oil					1.7 1.5 2.4 4.5 9.5 9.0 12.2 4.1 -8 12.3 -7.4 3.9 3.4 7.3 -5.3	7.0 3.5 .4 11.2 7.1 10.5 8.6 8.8 28.4 -1.3 25.2 2.5 5.0 7.6 12.5 -2.2	5.2 4.6 4 16.1 5.8 7.9 7.1 9.1 1.2 5.5 4.7 .8 4.8 11.5 -1.8	7.4 4.1 1.7 10.2 8.3 11.8 13.7 11.1 8 3.2 -1.9 6.4 9.0 11.8 19.6 .5	2.3 -1.9 -2.1 -1.3 3.3 5.2 10.2 7.5 -2.1 -7.4 13.6 1.9 7.7 14.9 8	-0.1 8 2  -2.1  2.3  4.2  2.6  6.6 9  -4.1  2.8  -5.9  1.3  .0  -10.2	3.69 .8 -4.1 4.7 5.4 4.2 8.3 4.1 8.2 1.29 11.6 28.0 -16.5	3.0 3 .9 -3.2 1.9 -1.2 4.8 3.6 9 11.3 7.8 1.1	1. 4. 3. 6. 4. 5. 4. 6. 3. -2. 11. 11. 2. -8.
Food Food at home Food away from home Food away from home Food away from home Food away from home Shelter. Owned dwellings Rented dwellings Other lodging Utilities, fuels, and public services Household operations Housefurnishings and equipment parel and services ransportation Vehicle purchases, total Gasoline and motor oii Other transportation expenses					1.7 1.5 2.4 4.5 9.5 9.0 12.2 4.1 8 12.3 -7.4 3.9 7.3 -5.3	7.0 3.5 4 11.2 7.1 10.5 8.8 28.4 -1.3 25.2 2.5 5.0 7.6 12.5 -2.2 7.6	5.2  4.6  -1.4  16.1  5.8  7.9  7.1  9.1  9.1  1.2  5.5  4.7  .8  4.8  11.5  -1.8  1.1	7.4 4.1 1.7 10.2 8.3 11.8 13.7 11.1 .8 3.2 -1.9 6.4 9.0 11.8 19.6 .5 11.0	2.3 -1.9 -2.1 -1.3 3.3 5.2 2.2 10.2 7.5 -2.1 -7.4 13.6 1.9 7.7 14.9	-0.1 8 2  -2.1  2.3  4.2  2.6  6.6  6.2 9  -4.1  2.8  -5.9  -1.3	3.69 .8 -4.1 4.7 5.4 4.2 8.3 4.3 4.1 8.29 11.6 28.0	3.0 3 .9 -3.2 1.9 -1.2 4.8 3.6 9 11.3 7.8 1.1 5.2 17.0	1. 4. 3. 6. 4. 5. 4. 6. 32. 11. 11. 2818.1 -13.
Food at home Food at home Food away from home					1.7 1.5 2.4 4.5 9.5 9.0 12.2 4.1 8 12.3 -7.4 3.9 7.3 -5.3 5.4 3.0	7.0 3.5 4 11.2 7.1 10.5 8.8 28.4 -1.3 25.2 2.5 5.0 7.6 12.5 -2.2 7.6 4.2	5.2  4.6 4 16.1  5.8 7.9 7.1  9.1  9.1  1.2  5.4 7  .8  4.8  11.5  -1.8  1.1  5.4	7.4 4.1 1.7 10.2 8.3 11.8 13.7 11.1 .8 3.2 -1.9 6.4 9.0 11.8 19.6 .5 11.0 10.5	2.3 -1.9 -2.1 -1.3 3.3 5.2 10.2 7.5 -2.1 -7.4 13.6 1.9 7.7 14.9 8	-0.1 8 2  -2.1  2.3  4.2  2.6  6.6 9  -4.1  2.8  -5.9  1.3  .0  -10.2	3.69 .8 -4.1 4.7 5.4 4.2 8.3 4.1 8.2 1.29 11.6 28.0 -16.5	3.0 -3.2 1.9 -1.2 4.8 3.6 9 11.3 7.8 1.1 5.2 17.0 -17.4	1. 4. 3. 6. 4. 5. 4. 6. 32. 11. 11. 281813.8
Food at home Food away from home Source Source Food away from home					1.7 1.5 2.4 4.5 9.5 9.0 12.2 4.1 8 12.3 -7.4 3.9 7.3 -5.3	7.0 3.5 4 11.2 7.1 10.5 8.8 28.4 -1.3 25.2 2.5 5.0 7.6 12.5 -2.2 7.6	5.2  4.6  -1.4  16.1  5.8  7.9  7.1  9.1  9.1  1.2  5.5  4.7  .8  4.8  11.5  -1.8  1.1	7.4 4.1 1.7 10.2 8.3 11.8 13.7 11.1 .8 3.2 -1.9 6.4 9.0 11.8 19.6 .5 11.0	2.3 -1.9 -2.1 -1.3 3.3 5.2 2.2 10.2 7.5 -2.1 -7.4 13.6 1.9 7.7 14.9	-0.1 8 2  -2.1  2.3  4.2  2.6  6.6  6.2 9  -4.1  2.8  -5.9  -1.3  .0  -10.2  2.8	3.69 .8 -4.1 4.7 5.4 4.2 8.3 4.1 8.2 1.29 11.6 28.0 -16.5 9.1	3.0 3 .9 -3.2 1.9 -1.2 4.8 9 11.3 7.8 1.1 5.2 17.0 -17.4 4.9	1. 4. 3. 6. 4. 5. 4. 6. 3. -2. 11. 11. 2. -8. -18. 8. 3.
Food at home Food at home Food away from home Housing Shelter Owned dwellings Rented dwellings Other lodging Utilities, fuels, and public services Household operations Housefurnishings and equipment pparel and services ransportation Vehicle purchases, total Gasoline and motor oil Other transportation expenses lealth care Intertainment Fees and admissions Televisions, radios, and sound equipment					1.7 1.5 2.4 4.5 9.5 9.0 12.2 4.1 8 12.3 -7.4 3.9 3.4 7.3 5.4 3.0 16.8	7.0 3.5 .4 11.2 7.1 10.5 8.6 8.8 28.4 -1.3 25.2 2.5 5.0 7.6 12.5 -2.2 7.6 4.2	5.2 4.6 4 16.1 5.8 7.9 1.2 5.5 4.8 11.5 -1.8 9.1 -3	7.4 4.1 1.7 10.2 8.3 11.8 13.7 11.1 8.3 2 -1.9 6.4 9.0 11.8 19.6 .5 7.7 5.7	2.3 -1.9 -2.1 -1.3 3.3 5.2 2.2 10.2 2.2 17.5 -2.1 -7.4 13.6 1.9 7.7 14.9 -8.8 -1.4 -8.1	-0.1 82 -2.1 2.3 4.2 2.6 6.6 6.29 -4.1 2.8 -5.9 -1.3 0.10.2 2.8 4.1 .7 3.2	3.69 -4.1 4.7 5.4 4.2 8.3 4.3 4.1 8.29 11.6 28.0 -16.5 9.1 .4 -2.9	3.0 3 .9 -3.2 1.9 -1.2 4.8 9 11.3 7.8 1.1 5.2 17.0 -17.4 4.9 .0 3.8 -12.0	1. 4. 3. 6. 4. 5. 4. 6. 3. -2. 11. 11. 2. -8. -18. -18. 3. 3. 7.
Food at home Food away from home Housing Shelter Owned dwellings Rented dwellings Other lodging Utilities, fuels, and public services Household operations Housefurnishings and equipment Apparel and services reansportation Vehicle purchases, total Gasoline and motor oi Other transportation expenses lealth care intertainment Fees and admissions Televisions, radios, and sound equipment Other equipment and services					1.7 1.5 2.4 4.5 9.0 12.2 4.1 -8 12.3 -7.4 3.9 3.4 7.3 -5.3 5.4 3.0 16.8 6.2	7.0 3.5 .4 11.2 7.1 10.5 8.6 8.8 28.4 -1.3 25.2 2.5 5.0 7.6 12.5 -2.2 7.6 4.2	5.2  4.6 4  16.1  5.8  7.9  7.1  9.1  1.2  5.5  4.7  .8  11.5  -1.8  1.1  5.4  9.1 3  7.6	7.4 4.1 1.7 10.2 8.3 11.8 13.7 11.1 8 3.2 -1.9 6.4 9.0 11.8 19.6 .5 11.0 10.5 7.7 5.7	2.3 -1.9 -2.1 -1.3 3.3 5.2 2.2 10.2 7.5 -2.1 -7.4 13.6 1.9 7.7 14.9 -8.4 -8.1 -6.0	-0.1 8 2 -2.1 2.3 4.2 2.6 6.6 6.29 -4.1 2.85.9 -1.3 .0 -10.2 2.8 4.1 .7 3.2	3.69 8 -4.1 4.7 5.4 4.2 8.3 4.3 4.3 8.2 1.29 11.6 28.0 -16.5 9.1 4 -2.9 .0	3.0 3 .9 -3.2 1.9 -1.2 4.8 3.6 9 11.3 7.8 1.1 5.2 17.0 -17.4 4.9 .0 3.8 -12.0 -1.7	1. 4. 3. 6. 4. 5. 4. 6. 3. 2. 11 11 21818 3.0 -1 3.0 -1 7 2.£. 2.£. 2.£. 2.£. 2.£. 2.£.
Food at home Food away from home Shelter Owned dwellings Rented dwellings Other lodging Utilities, fuels, and public services Household operations Housefurnishings and equipment sparel and services ransportation Vehicle purchases, total Gasoline and motor oil Other transportation expenses lealth care Intertainment Fees and admissions Televisions, radios, and sound equipment Other equipment and services ersonal care					1.7 1.5 2.4 4.5 9.0 12.2 4.1 8 12.3 -7.4 3.9 7.3 -5.3 5.4 3.0 16.8 6.2	7.0 3.5 .4 11.2 7.1 10.5 8.6 8.8 28.4 -1.3 25.2 2.5 5.0 7.6 12.5 -2.2 7.6 4.2 15.4 9	5.2 4.6 4 16.1 5.8 7.9 1.2 5.5 4.8 11.5 -1.8 9.1 -3	7.4 4.1 1.7 10.2 8.3 11.8 13.7 11.1 8 3.2 2-1.9 6.4 9.0 11.8 19.6 15.5 11.0 10.5 7.7 5.7	2.3 -1.9 -2.1 -1.3 3.3 5.2 2.2 10.2 7.5 -2.1 -7.4 13.6 1.9 7.7 14.9 5.3 -1.4 -8.1 6.0 -1.7	-0.1 8 2 -2.1 2.3 4.2 2.6 6.6 6.29 -4.1 2.8 -5.9 -1.3 .0 -10.2 2.8 4.1 .7 3.2	3.69 8 -4.1 4.7 5.4 4.2 8.3 4.3 4.3 4.3 1.29 11.6 28.0 -16.5 9.1 -2.9 .0 9.5 -16.2	3.0 -3.2 1.9 -1.2 4.8 3.6 9 11.3 7.8 1.1 5.2 17.0 -17.4 4.9 .0 3.8 -12.0 -1.7 18.5	1. 4. 3. 6. 4. 5. 4. 6. 32. 11. 11. 2818. 6. 37. 7.
Food at home Food away from home lousing Shelter. Owned dwellings Rented dwellings Other lodging. Utilities, fuels, and public services Household operations Housefurnishings and equipment pparel and services ransportation Vehicle purchases, total Gasoline and motor oi Other transportation expenses ealth care Intertainment Fees and admissions Televisions, radios, and sound equipment Other equipment and services					1.7 1.5 2.4 4.5 9.0 12.2 4.1 8 12.3 7.4 3.9 7.3 5.3 5.4 3.0 16.8 6.2	7.0 3.5 .4 11.2 7.1 10.5 8.6 8.8 28.4 -1.3 25.2 2.5 5.0 7.6 12.5 -2.2 7.6 4.2 15.4 9	5.2  4.6 4  16.1  5.8  7.9  7.1  9.1  1.2  5.5  4.7  .8  11.5  -1.8  1.1  5.4  9.1 3  7.6  21.9	7.4 4.1 1.7 10.2 8.3 11.8 13.7 11.1 8 3.2 -1.9 6.4 9.0 11.8 19.6 .5 11.0 10.5 7.7 5.7	2.3 -1.9 -2.1 -1.3 3.3 5.2 2.2 10.2 7.5 -2.1 -7.4 13.6 1.9 7.7 14.9 -8.4 -8.1 -6.0	-0.1 8 2 -2.1 2.3 4.2 2.6 6.6 6.29 -4.1 2.85.9 -1.3 .0 -10.2 2.8 4.1 .7 3.2	3.69 8 -4.1 4.7 5.4 4.2 8.3 4.3 4.3 8.2 1.29 11.6 28.0 -16.5 9.1 4 -2.9 .0	3.0 3 .9 -3.2 1.9 -1.2 4.8 3.6 9 11.3 7.8 1.1 5.2 17.0 -17.4 4.9 .0 3.8 -12.0 -1.7	1 4 3 6 4 6 3 -2 11 11 1 2 -8 -18 8 3 -7 7 2 2

to provide correct information, differences in interviewer ability, mistakes in recording or coding, or other processing errors.

Quarterly publication of expenditure data will provide estimates of changes in spending patterns as they occur during the year. In general, these patterns are stable, but the effect of sudden shocks to the economy can be examined more quickly. In addition, the ability to study seasonal differences in expenditures should be fruitful for many users.

---FOOTNOTES

A consumer unit is a single person or group of persons in a sample household who are related by blood, marriage, adoption, or other legal arrangement, or who share responsibility for at least 2 out of 3 major types of expenses—food, housing, and other expenses.

<sup>2</sup>Another criterion for publishing an expenditure category was that the coefficient of variation would not exceed 10 percent.

<sup>3</sup>The reference person (or householder) is the first member mentioned by the survey respondent when asked to "[s]tart with the name of the person or one of the persons who owns or rents the home." It is with respect to this person that the relationship of other consumer unit members is determined.

<sup>4</sup>The Consumer Expenditure Survey is described in detail in *BLS Handbook of Methods*, Bulletin 2285 (Bureau of Labor Statistics, 1988), ch. 18.

## **Employment Cost Index series** to replace Hourly Earnings Index

#### G. Donald Wood

Early in 1989, the Bureau of Labor Statistics will replace the Hourly Earnings Index with an Employment Cost Index (ECI) series that has the same occupational coverage as the Hourly Earnings Index. The new ECI series is part of a broader initiative that will provide occupational indexes by industry sector—such as for blue-collar

G. Donald Wood is chief of the Division of Employment Cost Trends, Bureau of Labor Statistics.

workers in the goods-producing and service-producing sectors—from the ECI program. The Bureau is making the change because, over the last decade, the ECI has become a major economic indicator and has several advantages in measuring wage change, and because recent cuts in the Bureau's budget make it impractical to maintain both series.

The Employment Cost Index, a quarterly series first published in 1976, is a fixed employment weighted index. It is designed to measure changes in employer expenditures for employee compensation and the two components of compensation—wages and salaries and benefit costs. The ECI provides indexes for State and local governments, private industry, and occupational and industry groups, as well as by collective bargaining status, region, and area size.

The Hourly Earnings Index was developed in 1971 to approximate wage rate change using average hourly earnings from the Bureau's monthly Current Employment Statistics Program. The earnings index, which covers production and nonsupervisory workers in private industry, approximates wage rate changes for broad

Table 1. Hourly Earnings Index (HEI) and Employment Cost Index with HEI coverage, wage and salary series, private industry workers, 1975–87

Date	Employment Cost Index with HEI coverage (wages and salaries)	Hourly Earnings Index (HEI)	Date	Employment Cost Index with HEI coverage (wages and salaries)	Hourly Earnings Index (HEI)	
1975:	ļ		1982:			
September	63.3 64.6	64.0 64.9	March June September December	105.9 107.0 109.1 110.6	105.6 107.1 109.1 110.4	
1976:		25.2	December			
March	65.9	65.8				
June	66.9	66.8	1983:			
September	68.0	68.7	March	111.7	111.3	
December	69.4	69.8	June	112.8	112.2	
			September	114.6	113 6	
1977:			December	116.0	114.6	
March	70.3	70.8	December			
June	71.6	72.0				
September	72.9	73.7	1984:			
December	74.3	74.8	March	117.3	115.2	
Document	, ,,,,		June	118.3	115.7	
ì			September	119.0	117.3	
1978:			December	120.5	118.3	
March	75.7	76.4	December	. 20.0		
June	77.4	77.8	]]			
September	79.1	79.8	1005			
December	80.1	81.3	1985: March	121.7	118.8	
<del>\</del>				122.8	119.5	
1979:			June	122.6	121.0	
1979: March	81.7	82.7	September	125.3	121.0	
June	83.4 83.4	84.0	December	123.3	122.0	
	85.2	86.4				
September	87.3	88.0	1000			
December	07.3	V3.0	1986:	126.3	122.3	
1000-			March	120.3	122.5	
1980: March	89.3	90.0	June	127.2	123.4	
	91.3	91.8	September	128.7	123.4	
June	93.5	94.1	December	120.7	124,4	
September	95.5	96.2	- <b>     </b>			
December	50.0	30.2	1 4007.			
1981:			1987:	130.0	124.9	
1981: March	97.9	98.5	March	130.0	124.9	
	100.0	100.0	June	130.9	125.2	
June	100.0	100.0	September	132.1	126.9	
September	102.1	102.8	December	132.9	127.8	
December	1 1U4.1	104.0	T. I.		,	