

# Health Care Indicators

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*This regular feature of the journal includes a section on each of the following four topics: community hospital statistics; employment, hours, and earnings in the private health sector; prices; and national economic indicators. These statistics are valuable in their own right for understanding the relationship between the health care sector and the overall economy. In addition, they provide indicators of the direction and magnitude of health care costs prior to the availability of more comprehensive data.*

## Community hospital statistics

In 1989, the Nation's hospital care bill grew 10 percent to a level of \$232.8 billion. Approximately 86 percent of those expenditures were for services delivered in community (short term, acute care) hospitals. Indicators from the American Hospital Association panel survey of community hospitals depict accelerating growth in hospital expenditures through the third quarter of 1990. These statistics imply that growth in community hospital expenditures for calendar year 1990 rose approximately 1 to 2 percent faster than that which occurred in 1989.

Expenses of community hospitals rose 11.7 percent between the third quarter of 1989 and the third quarter of 1990, to \$54.9 billion (Tables 1 and 2). Labor costs for 3.2 million full-time equivalent employees comprised 55 percent of all expenses.

More than three-quarters of all expenses covered services delivered on an inpatient basis. Average inpatient expenses per admission topped \$5,000 for the first time in the third quarter of 1990, averaging \$5,097. This amount represents a 10-percent increase from the same quarter 1 year ago.

The number of admissions fell 0.4 percent between the third quarter of 1989 and 1990, a reversal to the trend of increasing admissions experienced during the prior three quarters. Community hospitals delivered 53 million days of inpatient care during the third quarter of 1990, a decline of 1.8 percent from the same period 1 year ago (Figure 1). The average length of stay remained essentially unchanged from the previous quarter at 6.5 days per admission, but is .1 day lower than the same period 1 year ago.

Activity in outpatient departments, including services delivered in clinics and emergency rooms, remained brisk. Number of visits, 83.4 million in the third quarter of 1990, increased 6.7 percent from the third quarter of 1989.

Community hospitals provided the site for 5,496 thousand surgical operations during the third quarter of 1990. Growth in the number of operations performed on both an inpatient and outpatient basis was strong, up 4.0 percent from the same period last year.

Community hospitals operated 920,000 beds in the third quarter of 1990; on average, 62.6 percent of these beds were occupied. The number of beds in operation continued to decline during the third quarter, down .8 percent from last year (Figure 2). The decline in beds has failed to keep pace with the decline in inpatient days. As a result, the occupancy rate during the third quarter of 1990 was lower than occupancy rates during the third quarter in any of the previous 3 years.

## Private health sector: Employment, hours, and earnings

Levels of employment, hours, and earnings in private (nongovernment) health service establishments are shown in Table 3. These data were drawn from the Bureau of Labor Statistics (BLS) "Establishment" survey of the private nonagricultural sector. An average of 8.2 million persons were employed on a full-time or part-time basis in private health service establishments during quarter ending September 1990. These workers comprise 9 percent of all private employment. Nonsupervisory health care sector employees worked a 32.8-hour week and earned \$10.47 an hour. Workers in these establishments worked fewer hours per week while earning more per hour than workers in the private economy as a whole. Whereas health care workers consistently worked fewer hours than the average worker in the private economy, only since the fourth quarter of 1988 have the hourly earnings of health workers surpassed those of the average worker.

Employment in the private health sector grew nearly five times as fast as in the private sector as a whole during the third calendar quarter of 1990: Between the third quarter of 1989 and the third quarter of 1990, growth in employment in the health care sector accelerated to 7.7 percent while growth in employment in all private establishments slowed to 1.6 percent (Table 4). Within the health sector, employment in physicians' offices showed the strongest growth, up 10.1 percent in the third quarter. This is the first double-digit employment growth seen in physicians' offices in the 1980s. Employment in private hospitals and nursing and personal care facilities continued to grow at rates four times faster than the rest of private economy.

Implied nonsupervisory work-hours and payroll growth, developed from the BLS establishment survey data, are composite measures of business activity. The slowdown of the general economy can be seen in deceleration in growth in work-hours (nonsupervisory employment times average weekly hours) in all private establishments. Despite this slowdown, growth in work-hours in private health service establishments has continued to accelerate

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**Table 1**  
**Selected community hospital statistics: 1987-90**

Item	Calendar year			1987 Q3	1988 Q3	1989 Q3	1989 Q4	1990 Q1	1990 Q2	1990 Q3
	1987	1988	1989							
<b>Operating expenses</b>										
Total in millions	\$161,322	\$177,770	\$195,378	\$40,978	\$45,011	\$49,132	\$50,732	\$52,471	\$53,738	\$54,902
Labor in millions	87,533	96,415	106,019	22,323	24,511	26,769	27,630	28,319	29,050	29,941
Nonlabor in millions	73,790	81,355	89,359	18,654	20,500	22,363	23,102	24,152	24,688	24,961
<b>Inpatient expenses in millions</b>										
Amount per patient day	129,814	140,475	152,137	32,738	35,318	38,034	39,372	40,706	40,969	41,645
Amount per admission	581	633	691	594	646	705	722	712	760	786
	3,861	4,197	4,588	3,896	4,243	4,634	4,796	4,780	4,936	5,097
<b>Utilization</b>										
Admissions in thousands	33,634	33,496	33,176	8,403	8,324	8,207	8,210	8,516	8,300	8,171
Inpatient days in thousands	223,441	222,313	220,361	55,145	54,635	53,968	54,506	57,132	53,931	53,012
Adult length of stay in days	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.5	6.5
Surgical operations in thousands	21,038	21,252	21,383	5,318	5,359	5,287	5,249	5,449	5,581	5,496
Outpatient visits in thousands	278,917	296,111	308,086	71,805	75,830	78,175	76,706	79,336	82,609	83,417
Beds in thousands	954	942	930	954	942	927	926	926	924	920
Adult occupancy rate <sup>1</sup>	64.1	64.5	64.9	62.9	63.1	63.2	64.0	68.5	64.1	62.6
<b>Full-time equivalent (FTE) personnel</b>										
Total in thousands	3,077	3,112	3,162	3,081	3,119	3,173	3,189	3,212	3,226	3,241
Number per bed	3.2	3.3	3.4	3.2	3.3	3.4	3.4	3.5	3.5	3.5
Adjusted patient days <sup>2</sup> per FTE	90	90	89	22	22	22	22	23	22	22
Adjusted patient days in thousands	277,654	281,322	282,974	69,024	69,632	69,717	70,233	73,647	70,741	69,886

<sup>1</sup>Adult occupancy rate is the ratio of average daily census to the average number of beds maintained during the reporting period.

<sup>2</sup>Adjusted patient days is an aggregate figure reflecting the number of days of inpatient care, plus an estimate of the volume of outpatient services, expressed in units equivalent to an inpatient day in terms of level of effort. It is derived by multiplying the number of outpatient visits by the ratio of outpatient revenue per outpatient visit to inpatient revenue per inpatient day, and adding the product to the number of inpatient days.

NOTES: Q designates quarter of year. Quarterly data are not seasonally adjusted.

SOURCE: American Hospital Association: *National Hospital Panel Survey Reports*. Chicago. Monthly reports for Jan. 1987-Sept. 1990.

**Table 2**  
**Percent change in selected community hospital statistics: 1987-90**

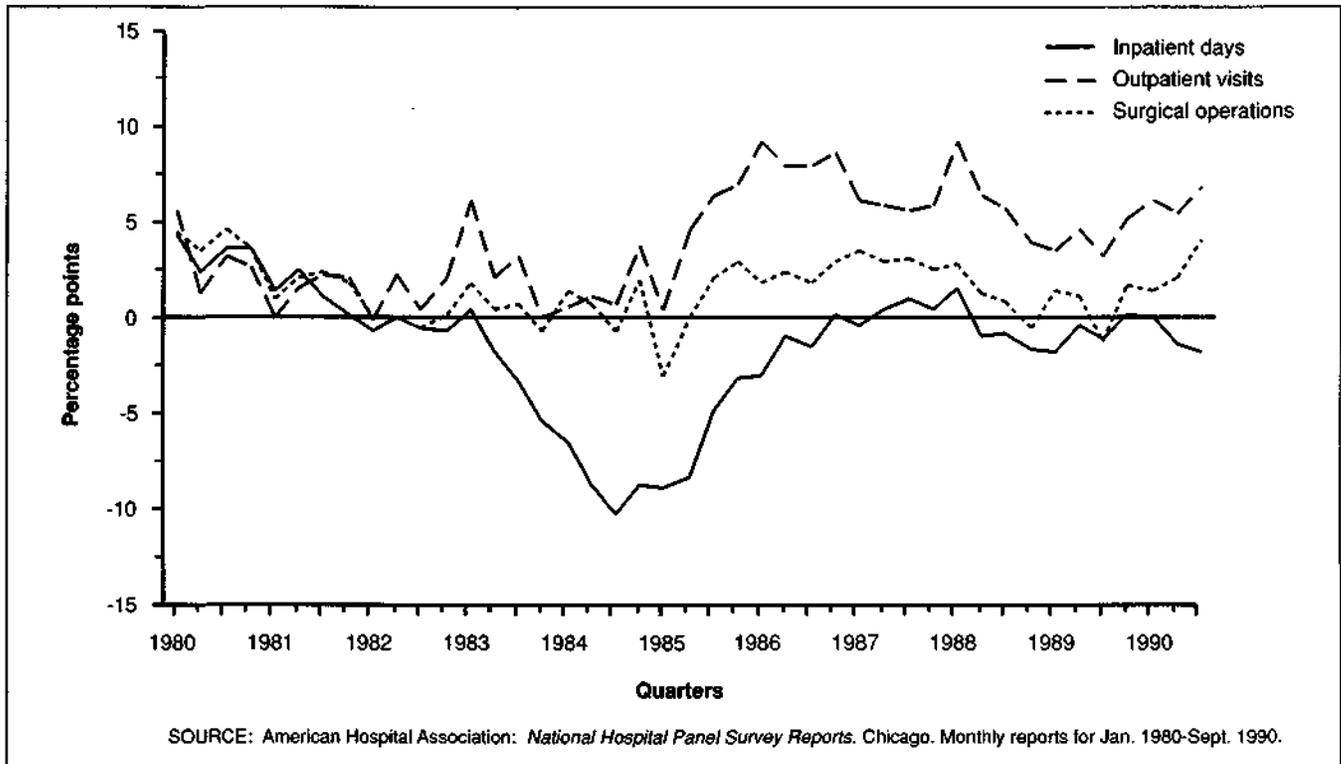
Item	Calendar year			1987 Q3	1988 Q3	1989 Q3	1989 Q4	1990 Q1	1990 Q2	1990 Q3
	1987	1988	1989							
<b>Operating expenses</b>										
Total	Annual percent change			Percent change from the same period of previous year						
Labor	10.5	10.2	9.9	11.8	9.8	9.2	10.7	10.9	11.5	11.7
Nonlabor	9.2	10.1	10.0	10.6	9.8	9.2	10.5	10.8	11.5	11.8
	12.0	10.3	9.8	13.2	9.9	9.1	10.9	11.0	11.5	11.6
<b>Inpatient expenses</b>										
Amount per patient day	8.8	8.2	8.3	10.0	7.9	7.7	9.2	9.2	9.4	9.5
Amount per admission	8.6	8.8	9.2	9.1	8.9	9.0	9.1	9.3	10.9	11.5
	9.4	8.7	9.3	10.3	8.9	9.2	8.6	9.0	8.8	10.0
<b>Utilization</b>										
Admissions	-0.6	-0.4	-1.0	-0.2	-0.9	-1.4	0.6	0.1	0.6	-0.4
Inpatient days	0.2	-0.5	-0.9	0.9	-0.9	-1.2	0.1	-0.1	-1.4	-1.8
Adult length of stay	0.8	-0.1	0.1	1.1	0.0	0.2	-0.5	-0.2	-1.9	-1.3
Surgical operations	2.9	1.0	0.6	3.0	0.8	-1.3	1.6	1.3	2.1	4.0
Outpatient visits	5.8	6.2	4.0	5.5	5.6	3.1	5.1	6.0	5.4	6.7
Beds	-0.9	-1.3	-1.3	-0.7	-1.3	-1.5	-1.1	-1.0	-0.8	-0.8
Adult occupancy rate <sup>1</sup>	0.7	0.4	0.4	0.9	0.2	0.2	0.8	0.6	-0.4	-0.7
<b>Full-time equivalent (FTE) personnel</b>										
Total	0.7	1.1	1.6	0.9	1.2	1.7	2.0	2.4	2.4	2.1
Number per bed	1.6	2.5	3.0	1.6	2.5	3.3	3.0	3.4	3.3	2.9
Adjusted patient days per FTE	1.0	0.2	-1.0	1.6	-0.4	-1.6	-0.5	-0.9	-1.9	-1.9
Adjusted patient days	1.7	1.3	0.6	2.5	0.9	0.1	1.5	1.5	0.5	0.2

<sup>1</sup>Change in rate, rather than percent change.

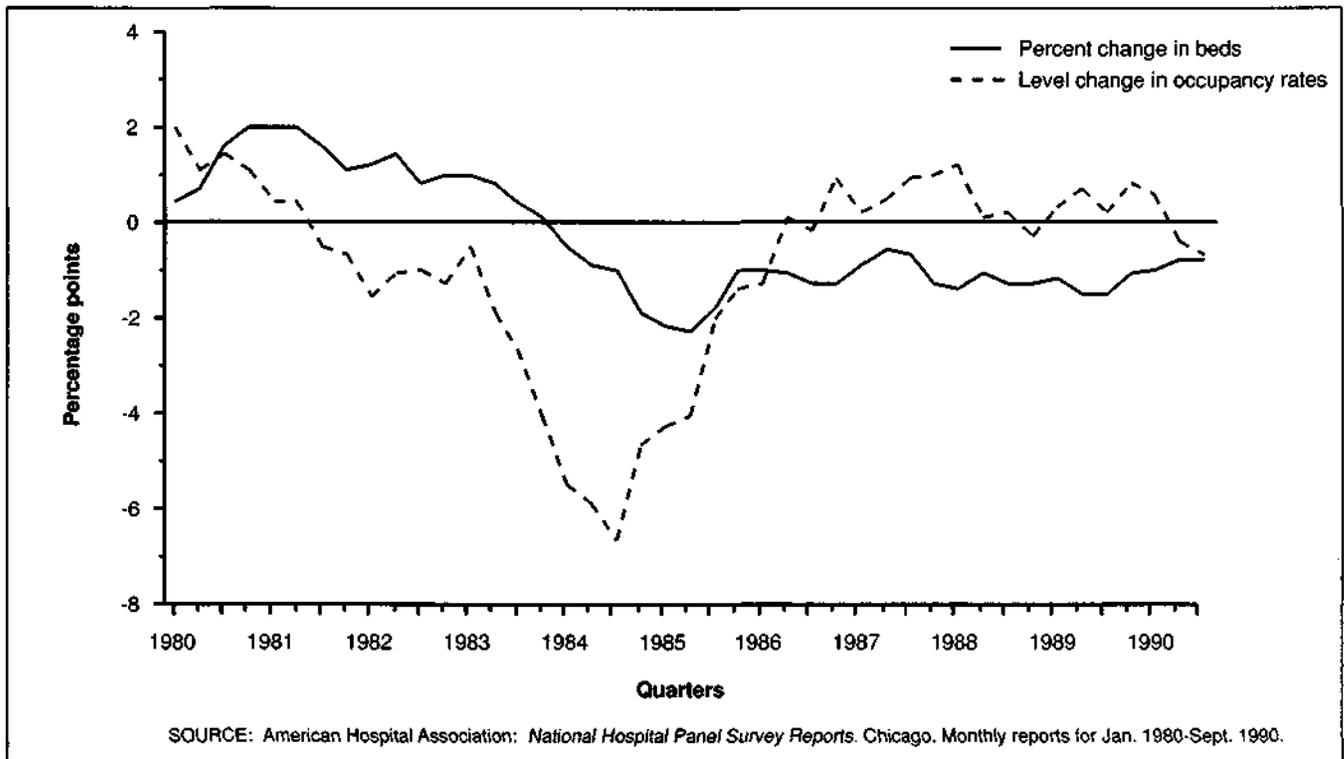
NOTE: Q designates quarter of year.

SOURCE: American Hospital Association: *National Hospital Panel Survey Reports*. Chicago. Monthly reports for Jan. 1987-Sept. 1990.

**Figure 1**  
**Percent change in inpatient days, outpatient visits, and surgical operations from the same period of previous year: 1980-90**



**Figure 2**  
**Percent change in beds and level change in occupancy rates from the same period of previous year: 1980-90**



**Table 3**  
**Employment, hours, and earnings in private<sup>1</sup> health service establishments, by selected type of establishment: 1987-90**

Type of establishment and measure	Calendar year			1987 Q3	1988 Q3	1989 Q3	1989 Q4	1990 Q1	1990 Q2	1990 Q3
	1987	1988	1989							
<b>Health services (SIC 80)</b>										
Total employment in thousands	6,805.4	7,121.0	7,550.7	6,859.7	7,181.3	7,624.1	7,735.2	7,872.1	8,041.0	8,208.6
Nonsupervisory workers:										
Employment in thousands	6,052.1	6,324.3	6,713.4	6,101.9	6,382.6	6,780.5	6,873.9	6,995.4	7,148.2	7,297.6
Average weekly hours	32.4	32.5	32.5	32.6	32.5	32.6	32.5	32.4	32.5	32.8
Average hourly earnings	\$8.69	\$9.21	\$9.82	\$8.73	\$9.26	\$9.90	\$10.07	\$10.24	\$10.31	\$10.47
<b>Offices and clinics of medical doctors (SIC 801)</b>										
Total employment in thousands	1,142.3	1,203.8	1,288.3	1,152.9	1,213.4	1,303.1	1,328.4	1,359.8	1,396.9	1,434.2
Nonsupervisory workers:										
Employment in thousands	946.0	992.0	1,064.0	954.4	1,001.4	1,076.2	1,095.4	1,121.9	1,154.3	1,185.2
Average weekly hours	31.1	31.6	31.9	31.2	31.5	32.0	32.0	31.8	31.5	31.9
Average hourly earnings	\$8.61	\$9.07	\$9.78	\$8.65	\$9.07	\$9.85	\$10.09	\$10.31	\$10.46	\$10.67
<b>Offices and clinics of dentists (SIC 802)</b>										
Total employment in thousands	470.4	484.6	502.7	472.9	487.0	506.2	510.1	514.2	520.8	526.0
Nonsupervisory workers:										
Employment in thousands	414.7	424.5	439.9	416.8	426.4	442.9	446.4	451.0	456.9	460.9
Average weekly hours	28.3	28.5	28.5	28.3	28.4	28.3	28.4	28.3	28.4	28.5
Average hourly earnings	\$8.50	\$8.82	\$9.40	\$8.48	\$8.87	\$9.42	\$9.62	\$9.88	\$10.08	\$10.22
<b>Nursing and personal care facilities (SIC 805)</b>										
Total employment in thousands	1,285.3	1,314.3	1,369.7	1,294.5	1,324.8	1,382.4	1,397.4	1,416.5	1,444.0	1,472.4
Nonsupervisory workers:										
Employment in thousands	1,161.2	1,187.0	1,238.3	1,170.6	1,197.8	1,250.2	1,262.4	1,278.6	1,304.4	1,329.7
Average weekly hours	31.6	31.6	31.9	32.0	31.7	32.2	31.9	31.7	31.9	32.5
Average hourly earnings	\$6.00	\$6.33	\$6.79	\$6.04	\$6.39	\$6.84	\$6.96	\$7.07	\$7.18	\$7.27
<b>Private hospitals (SIC 806)</b>										
Total employment in thousands	3,143.0	3,295.0	3,472.3	3,168.1	3,323.1	3,504.0	3,540.5	3,593.4	3,650.1	3,715.9
Nonsupervisory workers:										
Employment in thousands	2,866.9	3,010.8	3,176.4	2,890.5	3,038.6	3,207.4	3,237.9	3,287.8	3,340.1	3,403.5
Average weekly hours	34.2	34.0	34.0	34.3	34.1	34.2	34.0	34.2	34.2	34.4
Average hourly earnings	\$9.84	\$10.51	\$11.21	\$9.89	\$10.59	\$11.31	\$11.49	\$11.62	\$11.66	\$11.85
<b>All private nonagricultural establishments</b>										
Total employment in thousands	85,190	88,150	90,644	86,206	89,235	91,539	91,821	90,436	92,272	93,011
Nonsupervisory workers:										
Employment in thousands	68,976	71,383	73,474	69,873	72,354	74,289	74,528	73,104	74,791	75,445
Average weekly hours	34.8	34.7	34.6	35.0	34.9	34.9	34.6	34.2	34.5	34.8
Average hourly earnings	\$8.98	\$9.28	\$9.66	\$8.96	\$9.29	\$9.67	\$9.82	\$9.90	\$9.97	\$10.05
<b>Employment in thousands</b>										
All hospitals	4,437.5	4,601.0	4,786.2	4,471.2	4,631.6	4,824.2	4,870.9	4,933.2	5,001.0	5,078.1
Private hospitals (SIC 806)	3,143.0	3,295.0	3,472.3	3,168.1	3,323.1	3,504.0	3,540.5	3,593.4	3,650.1	3,715.9
Federal hospitals	249.4	240.7	225.6	252.8	238.1	226.1	226.7	227.1	227.7	228.6
State hospitals	438.7	446.2	450.0	440.9	448.0	450.9	451.8	452.2	454.4	454.6
Local hospitals	606.4	619.0	638.3	609.4	622.5	643.2	651.9	660.5	668.8	679.0

<sup>1</sup>Excludes hospitals, clinics, and other health-related establishments run by all governments.

NOTES: For the first time, data presented here incorporates conversion to the 1987 Standard Industrial Classification (SIC) and a historical reconstruction of components back to the inception of the series, whenever possible. In addition, data include the annual recalibration of employment and earnings estimates using unemployment insurance reports (ES202). Q designates quarter of year. Quarterly data are not seasonally adjusted.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics: *Employment and Earnings*. Washington. U.S. Government Printing Office. Monthly reports for Jan. 1987-Sept. 1990.

Table 4

**Percent change in employment, hours, and earnings in private<sup>1</sup> health service establishments,  
by selected type of establishment: 1987-90**

Type of establishment and measure	Calendar year			1987 Q3	1988 Q3	1989 Q3	1989 Q4	1990 Q1	1990 Q2	1990 Q3
	1987	1988	1989							
<b>Health services (SIC 80)</b>	Annual percent change			Percent change from same period of previous year						
Total employment	4.1	4.6	6.0	4.1	4.7	6.2	6.6	7.0	7.4	7.7
Nonsupervisory workers:										
Employment	4.2	4.5	6.2	4.1	4.6	6.2	6.6	6.9	7.4	7.6
Average weekly hours	-0.1	0.2	0.1	0.3	-0.3	0.3	0.3	0.0	0.3	0.6
Average hourly earnings	4.2	5.9	6.7	4.2	6.1	6.9	6.5	6.4	6.4	5.8
<b>Offices and clinics of medical doctors (SIC 801)</b>										
Total employment	5.4	5.4	7.0	5.3	5.2	7.4	8.3	9.0	9.6	10.1
Nonsupervisory workers:										
Employment	5.0	4.9	7.3	4.9	4.9	7.5	8.0	8.8	9.6	10.1
Average weekly hours	-0.2	1.4	1.0	0.0	1.0	1.6	0.9	0.0	-0.9	-0.3
Average hourly earnings	3.2	5.3	7.8	3.5	4.9	8.6	8.1	8.1	8.6	8.3
<b>Offices and clinics of dentists (SIC 802)</b>										
Total employment	2.7	3.0	3.7	2.4	3.0	3.9	4.2	4.4	3.8	3.9
Nonsupervisory workers:										
Employment	2.5	2.4	3.6	2.4	2.3	3.9	4.3	4.6	4.1	4.1
Average weekly hours	0.9	0.8	-0.2	1.4	0.4	-0.4	-0.7	-0.4	-1.0	0.7
Average hourly earnings	2.8	3.9	6.6	2.5	4.6	6.2	6.5	6.8	8.1	8.5
<b>Nursing and personal care facilities (SIC 805)</b>										
Total employment	3.1	2.3	4.2	2.6	2.3	4.3	5.2	5.7	6.2	6.5
Nonsupervisory workers:										
Employment	3.1	2.2	4.3	2.6	2.3	4.4	5.2	5.6	6.1	6.4
Average weekly hours	0.5	0.0	1.0	1.3	-0.9	1.6	0.9	0.3	0.6	0.9
Average hourly earnings	3.5	5.4	7.3	4.0	5.8	7.0	6.9	6.4	6.9	6.3
<b>Private hospitals (SIC 806)</b>										
Total employment	3.5	4.8	5.4	3.8	4.9	5.4	5.5	5.8	5.9	6.0
Nonsupervisory workers:										
Employment	3.6	5.0	5.5	3.9	5.1	5.6	5.5	5.8	6.0	6.1
Average weekly hours	-0.3	-0.5	0.1	0.0	-0.6	0.3	0.6	0.9	0.9	0.6
Average hourly earnings	5.1	6.8	6.7	5.0	7.0	6.9	6.3	5.9	5.4	4.7
<b>All private nonagricultural establishments</b>										
Total employment	2.8	3.5	2.8	3.0	3.5	2.6	2.3	2.1	1.8	1.6
Nonsupervisory workers:										
Employment	2.9	3.5	2.9	3.1	3.6	2.7	2.4	2.1	1.8	1.6
Average weekly hours	0.1	-0.2	-0.3	0.3	-0.3	0.0	-0.6	-0.3	-0.3	-0.3
Average hourly earnings	2.5	3.4	4.1	2.6	3.6	4.2	4.0	3.8	4.0	3.9
<b>Employment</b>										
All hospitals	2.6	3.7	4.0	3.0	3.6	4.2	4.6	5.0	5.2	5.3
Private hospitals (SIC 806)	3.5	4.8	5.4	3.8	4.9	5.4	5.5	5.8	5.9	6.0
Federal hospitals	1.2	-3.5	-6.3	2.9	-5.8	-5.1	-1.8	0.7	1.6	1.1
State hospitals	0.1	1.7	0.8	0.5	1.6	0.7	0.8	0.8	1.3	0.8
Local hospitals	0.9	2.1	3.1	1.1	2.1	3.3	4.8	5.5	5.8	5.6

<sup>1</sup>Excludes hospitals, clinics, and other health-related establishments run by all governments.

NOTES: For the first time, data presented here incorporates conversion to the 1987 Standard Industrial Classification (SIC) and a historical reconstruction of components back to the inception of the series whenever possible. In addition, data include the annual recalibration of employment and earnings estimates using unemployment insurance reports (ES202). Q designates quarter of year. Quarterly data are not seasonally adjusted.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics: *Employment and Earnings*. Washington. U.S. Government Printing Office. Monthly reports for Jan. 1987-Sept. 1990.

**Table 5**  
**Percent change in implied nonsupervisory payrolls and work-hours in private<sup>1</sup> health service establishments, by selected type of establishment: 1987-90**

Type of establishment	Calendar year			1987 Q3	1988 Q3	1989 Q3	1989 Q4	1990 Q1	1990 Q2	1990 Q3
	1987	1988	1989							
<b>Private health service establishments (SIC 80)</b>	Annual percent change			Percent change from same period of previous year						
Payrolls	8.5	10.9	13.4	8.9	10.7	13.9	14.0	14.0	14.6	14.4
Work-hours	4.1	4.7	6.2	4.5	4.3	6.6	6.9	6.9	7.7	8.3
<b>Offices and clinics of medical doctors (SIC 801)</b>										
Payrolls	8.1	12.1	16.8	8.5	11.3	18.3	17.9	17.6	17.9	18.9
Work-hours	4.9	6.4	8.4	4.9	5.9	9.2	9.1	8.8	8.6	9.8
<b>Offices and clinics of dentists (SIC 802)</b>										
Payrolls	6.3	7.1	10.3	6.7	7.2	10.2	10.5	11.3	11.4	13.6
Work-hours	3.5	3.2	3.4	3.9	2.7	3.5	3.6	4.2	3.0	4.8
<b>Nursing and personal care facilities (SIC 805)</b>										
Payrolls	7.2	7.8	13.0	8.1	7.4	13.2	13.7	12.8	14.1	14.3
Work-hours	3.6	2.2	5.3	3.9	1.4	6.0	6.2	5.9	6.8	7.4
<b>Private hospitals (SIC 806)</b>										
Payrolls	8.6	11.7	12.6	9.1	11.8	12.9	12.8	13.0	12.7	11.9
Work-hours	3.3	4.5	5.6	3.9	4.5	5.9	6.1	6.7	6.9	6.7
<b>All private nonagricultural establishments</b>										
Payrolls	5.5	6.8	6.8	5.8	7.1	6.8	6.0	5.5	5.7	5.4
Work-hours	3.1	3.3	2.6	3.4	3.3	2.7	1.8	1.8	1.5	1.3

<sup>1</sup>Excludes hospitals, clinics, and other health-related establishments run by all governments.

NOTES: For the first time, data presented here incorporates conversion to the 1987 Standard Industrial Classification (SIC) and a historical reconstruction of components back to the inception of the series, whenever possible. In addition, data include the annual recalibration of employment and earnings estimates using unemployment insurance reports (ES202). Q designates quarter of year. Quarterly data are not seasonally adjusted.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics: *Employment and Earnings*. Washington. U.S. Government Printing Office. Monthly reports for Jan. 1987-Sept. 1990.

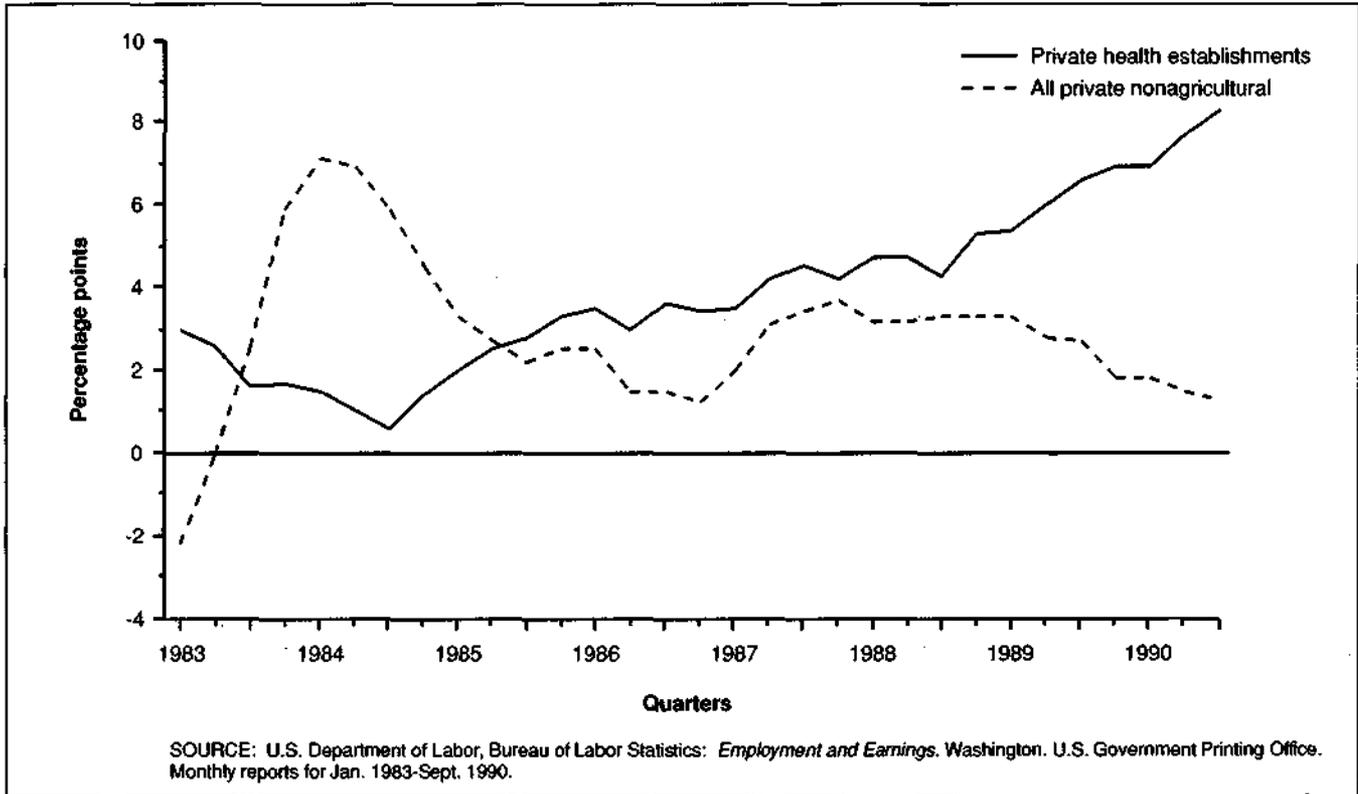
(Table 5 and Figure 3). Between the third quarter of 1989 and the third quarter of 1990, work-hours in all private establishments increased 1.3 percent, while work-hours in private health service establishments increased 8.3 percent.

Nonsupervisory payrolls (nonsupervisory work-hours multiplied by average hourly earnings) increased by

14.4 percent for health service establishments in the third quarter of 1990, while payroll in all private establishments increased 5.4 percent (Figure 4). Within the health sector, payroll of physicians' offices grew the fastest, 18.9 percent, and payrolls of private hospitals grew the slowest, 11.9 percent.

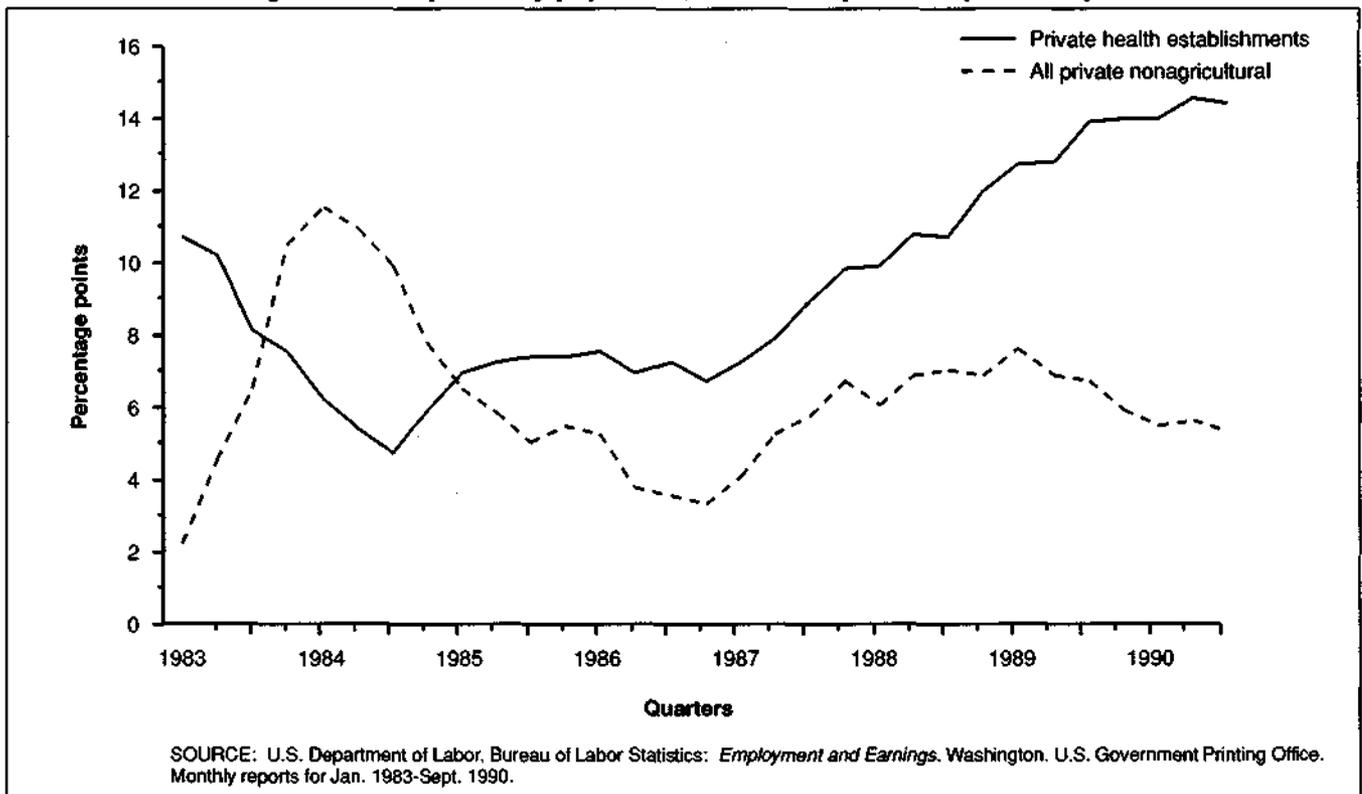
**Figure 3**

**Percent change for nonsupervisory work-hours from the same period of previous year: 1983-90**



**Figure 4**

**Percent change for nonsupervisory payroll from the same period of previous year: 1983-90**



**Table 6**  
**Selected items of the Consumer Price Index for all urban consumers: 1987-90**

Item	Calendar year			1987 Q3	1988 Q3	1989 Q3	1989 Q4	1990 Q1	1990 Q2	1990 Q3
	1987	1988	1989							
All items	113.6	118.3	124.0	114.4	119.1	124.7	125.9	128.0	129.3	131.6
All items less medical care	112.6	117.0	122.4	113.3	117.9	123.1	124.2	126.3	127.5	129.6
Apparel and upkeep	110.6	115.4	118.6	110.0	114.4	116.7	121.3	120.8	125.2	123.3
Energy	88.6	89.2	94.3	92.0	91.9	97.1	93.7	96.5	97.3	103.8
Food and beverages	113.5	118.2	124.9	113.9	119.4	125.6	126.7	130.7	131.3	132.7
Housing: shelter	121.2	127.1	132.8	122.0	128.0	133.9	135.2	136.9	138.6	141.9
Medical care	130.1	138.6	149.3	131.2	139.9	150.7	153.7	157.4	160.8	164.8
Medical care services <sup>1</sup>	130.0	138.3	148.9	131.0	139.6	150.3	153.3	157.1	160.5	164.7
Professional services	128.8	137.5	146.4	130.1	138.8	147.5	149.3	152.2	155.0	157.7
Physicians' services	130.4	139.8	150.0	131.7	141.3	151.4	153.2	156.5	159.8	162.6
Dental services	128.8	137.5	146.0	130.1	138.6	146.9	149.1	152.3	154.4	157.1
Hospital and related services	131.6	143.9	160.5	132.8	145.7	162.6	167.3	171.5	174.5	180.3
Hospital room	131.1	143.3	158.1	132.2	145.4	159.8	165.0	169.7	172.2	177.6
Other inpatient services <sup>2</sup>	103.9	114.0	128.9	104.9	115.2	130.7	134.2	136.7	139.4	144.7
Outpatient services <sup>2</sup>	103.3	112.5	124.7	104.0	113.5	126.7	129.8	134.0	136.3	140.1
Medical care commodities	130.9	139.9	150.8	132.2	141.2	152.3	155.1	158.5	162.3	165.0
Prescription drugs	140.8	152.0	165.2	142.2	153.4	167.2	170.6	175.5	180.2	183.8
Nonprescription drugs and medical supplies <sup>2</sup>	103.1	108.1	114.6	104.1	109.1	115.3	117.1	118.0	120.1	121.2
Internal and respiratory over-the-counter drugs	123.9	130.8	138.7	125.2	131.9	139.4	141.7	142.6	144.9	146.4
Nonprescription medical equipment and supplies	119.6	123.9	131.1	120.6	124.9	132.1	134.1	135.2	138.1	138.9

<sup>1</sup>Includes private health insurance (not shown separately).

<sup>2</sup>December 1986 = 100.

NOTES: 1982-84 = 100.0 unless noted. Q designates quarter of year. Quarterly data not seasonally adjusted.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics: *CPI Detailed Report*. Washington. U.S. Government Printing Office. Monthly reports for Jan. 1987-Sept. 1990.

## Prices

### Consumer prices

Prices paid by consumers of medical care rose 9.3 percent between the third quarter of 1989 and the third quarter of 1990, as measured by the Consumer Price Index (CPI) for all urban consumers. By this measure, overall prices increased by 5.5 percent for the same time period. Since the second quarter of 1981, medical care prices grew faster than the prices of all items (including health); in the first three quarters of 1990, growth in medical care prices accelerated, widening the gap between medical care and all items price inflation (Tables 6 and 7).

The largest element of medical prices is the medical service component of the index. One segment of the service component, hospital and related services, has risen 10.9 percent from the third quarter of 1989 to the third quarter of 1990. This continues the trend of double digit inflation for hospital and related services that began seven quarters earlier (Figure 5). In contrast to the accelerating price growth in hospital and related services, prices paid for professional services have increased at a more consistent pace.

The other major component of medical prices is medical care commodities, which had increased 8.3 percent from the third quarter in 1989 to the third quarter of 1990. Prescription drugs, one element of medical care commodities, has consistently shown the largest growth. Growth between the first three quarters of

1989 and 1990 averaged 10.0 percent, higher than the growth exhibited for the same quarters 1 year ago. Total prescription drug expenditures are primarily driven by price. If this price growth continues into the fourth quarter of 1990, then growth in overall expenditures for prescription drugs is expected to accelerate in 1990.

The growth in all items less medical care was 5.3 percent for the period between the third quarter of 1989 and 1990, with energy prices exhibiting strong growth, up 6.8 percent. The full impact of the increases in energy prices, most specifically oil, has yet to be felt, but is expected to have a substantial impact in the last quarter of 1990 as prices are driven by the demand during the cold winter months and the situation in the Persian Gulf.

### Background on input price indexes

In 1979, the Health Care Financing Administration (HCFA) developed the hospital input price index. This input price index was designed to measure the pure price changes associated with expenditure changes for hospital services. The skilled nursing facility (SNF) and home health agency (HHA) input price indexes were developed in the early 1980s. These indexes are often referred to as "market baskets" because they price a consistent set of goods and services over time. Since their creation, they have played an important role in helping to set payment percent increases and understanding the contribution of input price increases to growing health expenditures.

**Table 7**

**Percent change in selected items of the Consumer Price Index for all urban consumers: 1987-90**

Item	Calendar year			1987 Q3	1988 Q3	1989 Q3	1989 Q4	1990 Q1	1990 Q2	1990 Q3
	1987	1988	1989							
	Annual percent change			Percent change from the same period of previous year						
All items	3.7	4.1	4.8	4.2	4.1	4.7	4.6	5.2	4.6	5.5
All items less medical care	3.4	3.9	4.6	4.0	4.0	4.4	4.4	5.0	4.3	5.3
Apparel and upkeep	4.4	4.3	2.8	4.0	4.0	2.0	1.5	3.6	4.6	5.7
Energy	0.4	0.8	5.7	6.7	-0.2	5.7	5.0	8.0	0.2	6.8
Food and beverages	4.1	4.1	5.7	3.7	4.9	5.2	5.3	6.5	5.4	5.6
Housing: shelter	4.7	4.8	4.5	4.7	4.9	4.6	4.8	5.0	5.2	6.0
Medical care	6.6	6.5	7.7	6.6	6.6	7.7	8.4	8.5	9.0	9.3
Medical care services <sup>1</sup>	6.6	6.5	7.6	6.5	6.6	7.7	8.4	8.5	9.1	9.6
Professional services	6.6	6.7	6.4	6.9	6.7	6.3	6.4	6.2	6.6	6.9
Physicians' services	7.4	7.2	7.3	7.5	7.3	7.1	7.2	6.6	7.3	7.4
Dental services	6.7	6.8	6.2	7.1	6.5	6.0	6.1	6.5	6.3	6.9
Hospital and related services	6.9	9.3	11.5	7.1	9.7	11.6	11.8	10.9	10.8	10.9
Hospital room	7.2	9.2	10.3	7.6	10.0	9.9	11.1	11.1	11.2	11.1
Other inpatient services	NA	9.7	13.1	NA	9.8	13.5	12.5	10.3	10.1	10.7
Outpatient services	NA	8.9	10.9	NA	9.1	11.6	11.5	11.8	11.2	10.6
Medical care commodities	6.7	6.9	7.8	6.7	6.8	7.8	8.1	8.5	8.3	8.3
Prescription drugs	8.0	7.9	8.7	7.7	7.9	9.0	9.2	10.1	10.0	9.9
Nonprescription drugs and medical supplies	NA	4.9	6.0	NA	4.8	5.7	6.0	5.6	5.0	5.1
Internal and respiratory over-the-counter drugs	5.3	5.5	6.1	5.7	5.4	5.7	5.9	5.3	4.6	5.0
Nonprescription medical equipment and supplies	4.0	3.6	5.8	4.3	3.6	5.7	6.2	5.9	5.7	5.2

<sup>1</sup>Includes private health insurance (not shown separately).

NOTES: Q designates quarter of year. NA designates not available.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics: *CPI Detailed Report*. Washington, U.S. Government Printing Office. Monthly reports for Jan. 1987-Sept. 1990.

**Figure 5**  
**Percent change for selected items of the Consumer Price Indexes from the same period of previous year: 1980-90**

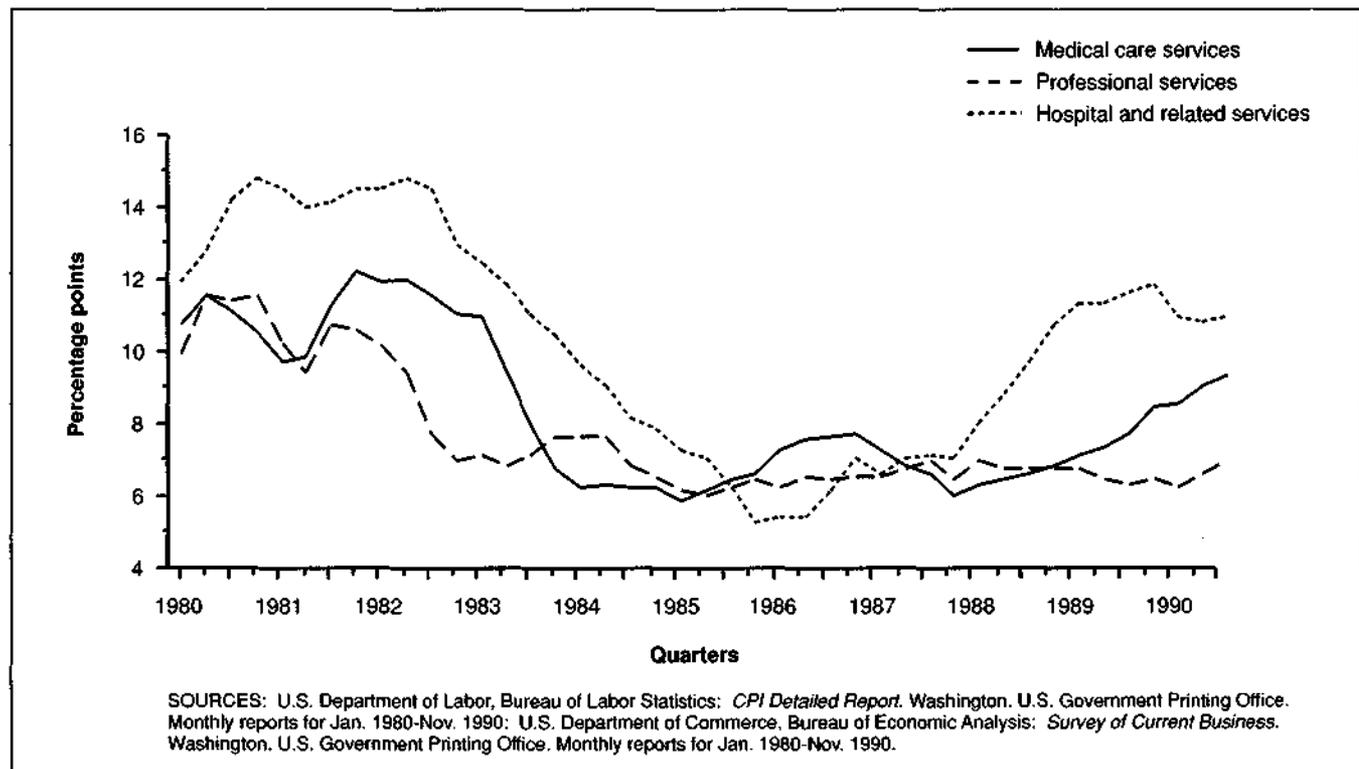


Table 8

Percent change in four-quarter averages in the prospective payment system hospital input price index, by expense category: 1988-91

Expense category <sup>1</sup>	Base year weights 1987 <sup>2</sup>	Four quarters ending							
		1988 Q1	1988 Q2	1988 Q3	1988 Q4	1989 Q1	1989 Q2	1989 Q3	1989 Q4
Total	100.000	4.2	4.5	4.7	5.0	5.4	5.6	5.6	5.4
Wages and salaries	52.212	4.1	4.3	4.4	4.5	4.8	4.8	4.9	4.9
Employee benefits	9.497	4.0	4.6	5.4	6.2	6.4	6.6	6.7	6.9
Other professional fees	1.649	4.2	4.4	4.6	4.5	4.7	4.6	4.5	4.6
Energy and utilities	2.370	3.4	3.4	0.6	-1.7	-0.5	2.3	4.8	7.4
Fuel oil, coal, and other fuel	0.625	15.7	13.1	3.2	-5.2	-4.2	0.9	6.2	13.6
Electricity	1.143	-1.5	-1.0	-0.3	0.6	1.6	2.4	2.7	3.2
Natural gas	0.343	-7.5	-4.1	-4.3	-2.7	-0.6	2.0	5.6	6.0
Motor gasoline	0.229	14.9	12.5	4.3	-2.4	-0.9	6.0	9.6	13.5
Water and sewerage maintenance	0.036	5.4	5.3	5.3	5.5	5.7	6.0	6.0	6.1
Professional liability insurance	1.433	17.3	18.0	20.3	24.2	22.5	17.0	9.7	0.6
All other	32.839	4.0	4.3	4.7	5.2	5.9	6.4	6.3	5.8
Other products	21.788	4.2	4.5	5.1	5.8	6.6	7.2	6.8	6.1
Pharmaceuticals	3.873	8.8	8.3	8.0	7.9	8.1	8.5	9.0	9.1
Food	3.299	3.1	2.9	3.5	4.3	5.0	5.4	5.0	4.5
Direct purchase	2.111	2.6	2.3	3.3	4.5	5.4	6.0	5.2	4.5
Contract service	1.188	3.8	3.8	3.9	4.0	4.3	4.4	4.5	4.6
Chemicals and cleaning products	3.126	7.3	8.2	10.0	11.9	13.9	14.5	11.7	7.5
Surgical and medical instruments	2.672	1.6	1.3	1.4	1.7	2.3	3.4	3.9	4.1
Photographic supplies	2.623	1.6	1.7	1.7	2.2	3.9	5.9	7.7	8.8
Rubber and plastics	2.323	2.6	4.2	5.6	6.2	6.1	5.4	4.2	3.0
Paper products	1.399	4.4	5.9	7.6	9.0	9.8	9.5	8.2	6.5
Apparel	1.142	1.1	1.6	2.4	3.0	2.7	2.3	2.0	2.1
Minor machinery and equipment	0.497	1.6	1.8	2.2	2.6	2.9	3.2	3.5	3.7
Miscellaneous products	0.833	2.6	2.4	2.3	2.5	3.3	4.3	4.8	5.1
Other services	11.051	3.6	3.9	3.9	4.1	4.5	4.8	5.1	5.1
Business services	3.845	4.1	4.6	4.5	4.4	4.2	4.5	5.1	5.5
Computer and data processing	1.992	6.2	6.8	7.0	6.7	6.8	6.9	7.2	7.4
Transportation and shipping	1.233	4.6	4.6	4.0	3.1	3.3	4.3	4.7	5.0
Telephone	0.987	-0.9	-0.7	-0.6	-0.4	-0.3	0.0	0.8	1.0
Blood services	0.588	0.6	-2.0	-2.4	1.2	4.7	7.9	8.0	5.5
Postage	0.372	0.0	3.4	6.8	10.1	13.5	9.8	6.3	3.1
Other—labor intensive	1.233	2.7	2.6	2.9	3.4	3.8	4.0	3.9	3.7
Other—nonlabor intensive	0.800	4.1	4.1	4.1	4.1	4.3	4.6	4.8	4.8

See footnotes at end of table.

The input price indexes, or "market baskets," are Laspeyres or fixed-weight indexes that are constructed in two steps. First, a base period is selected. For example, for the prospective payment system (PPS) hospital input price index, the base period is 1987. Next, a set of cost categories such as food, fuel, and labor are identified and their 1987 expenditure amounts determined. The proportion or share of total expenditures accounted for by specific spending categories is calculated. These proportions are called cost or expenditure weights. There are 28 expenditure categories in the 1987-based hospital PPS input price index. In the next step, a price proxy is selected to match each expenditure category. The purpose of the price proxy is to measure the rate of price increase of the goods or services in that expenditure category. The price proxy index for each spending category is multiplied by the expenditure weight for the category. The sum of these products (weights multiplied by the price index) over all cost categories yields the composite input price index for any given time period, usually a fiscal year or a calendar year. The percent change in the input price index is an estimate of price change over time

for a fixed quantity of goods and services purchased by a provider.

The input price indexes are estimated on a historical basis and forecasted out several years. The HCFA-chosen price proxies are forecasted under contract with DRI/McGraw-Hill (DRI). Each quarter, 1 month after the end of a calendar quarter, DRI updates its macroeconomic forecasts of wages and prices. DRI bases its new forecasts on updated historical information and revised forecast assumptions. New forecasts and estimates are done in February, May, August, and November. Some of the data in Tables 8 through 13 are forecasted and are expected to change as more recent historical data become available and subsequent quarterly forecasts are received.

The methodology and price proxy definitions used in the input price indexes are described in the *Federal Register* notices that accompany the revisions of the PPS, HHA, and SNF cost limits. A description of the current PPS input price index was published September 4, 1990 (*Federal Register*). The latest HHA regulatory input price index was published October 18, 1988 (*Federal Register*), and the latest SNF input price index was published October 2, 1987 (*Federal Register*).

Table 8—Continued

## Percent change in four-quarter averages in the prospective payment system hospital input price index, by expense category: 1988-91

Expense category <sup>1</sup>	Base year weights 1987 <sup>2</sup>	Four quarters ending							
		1990 Q1	1990 Q2	1990 Q3	1990 Q4	1991 Q1	1991 Q2	1991 Q3	1991 Q4
Total	100.000	5.1	4.8	4.7	4.8	5.1	5.4	5.8	5.8
Wages and salaries	52.212	4.9	5.0	4.9	4.8	4.8	4.8	5.1	5.3
Employee benefits	9.497	7.5	7.8	7.8	7.7	7.0	6.5	6.2	6.1
Other professional fees	1.649	4.6	4.7	4.8	4.9	4.9	5.0	5.3	5.5
Energy and utilities	2.370	8.5	5.6	5.9	12.4	19.1	28.0	31.3	21.1
Fuel oil, coal, and other fuel	0.625	17.3	11.3	13.9	27.4	39.7	56.8	59.2	33.1
Electricity	1.143	3.1	2.8	2.2	3.9	6.3	9.0	10.6	9.2
Natural gas	0.343	4.9	2.1	-1.3	-0.3	2.0	8.1	15.8	17.5
Motor gasoline	0.229	16.3	7.7	11.1	26.7	42.1	61.0	63.1	37.5
Water and sewerage maintenance	0.036	6.2	6.4	6.6	6.9	6.9	7.0	7.1	7.2
Professional liability insurance	1.433	-2.2	-1.6	-0.6	-0.1	-0.7	-1.7	-1.8	1.9
All other	32.839	4.9	4.1	3.7	3.8	4.3	4.9	5.5	5.6
Other products	21.788	4.9	3.8	3.3	3.4	4.0	4.8	5.4	5.6
Pharmaceuticals	3.873	9.3	9.5	9.1	8.8	8.4	8.0	8.2	8.6
Food	3.299	3.9	3.8	4.1	4.3	4.5	4.4	4.5	4.4
Direct purchase	2.111	3.5	3.3	3.7	3.9	4.2	3.9	3.9	3.8
Contract service	1.188	4.6	4.7	4.8	4.9	5.2	5.3	5.5	5.5
Chemicals and cleaning products	3.126	2.2	-2.0	-3.1	-1.8	2.2	6.5	9.6	10.0
Surgical and medical instruments	2.672	3.9	3.2	2.8	2.4	2.1	2.1	2.3	2.6
Photographic supplies	2.623	8.0	6.6	5.3	4.4	4.1	4.5	4.2	3.5
Rubber and plastics	2.323	2.0	1.1	0.8	0.8	1.3	2.1	3.1	3.7
Paper products	1.399	4.6	2.7	1.8	1.4	1.8	2.7	3.5	4.1
Apparel	1.142	2.5	2.9	3.0	2.6	2.2	2.0	2.0	2.3
Minor machinery and equipment	0.497	3.6	3.4	3.1	2.7	2.6	2.8	3.1	3.5
Miscellaneous products	0.833	5.2	4.5	4.5	5.5	6.1	7.2	7.7	6.2
Other services	11.051	4.9	4.6	4.4	4.5	4.8	5.2	5.6	5.6
Business services	3.845	5.8	5.8	5.4	5.3	5.3	5.2	5.3	5.0
Computer and data processing	1.992	7.1	6.5	6.2	6.1	6.5	7.1	7.3	7.4
Transportation and shipping	1.233	5.1	3.8	3.9	4.6	5.0	6.3	6.7	6.6
Telephone	0.987	1.2	1.1	0.9	1.5	2.0	2.8	3.5	3.8
Blood services	0.588	3.1	1.1	0.6	1.0	2.0	2.8	3.1	3.3
Postage	0.372	0.0	0.0	0.0	0.0	0.7	3.4	6.1	8.8
Other—labor intensive	1.233	3.6	3.7	3.7	3.7	3.9	4.0	4.4	4.7
Other—nonlabor intensive	0.800	4.9	4.8	5.1	5.6	5.8	6.2	6.1	5.3

<sup>1</sup>Data sources used to estimate the input price index relative weights and choice of price proxies were taken from the *Federal Register* (1990).

<sup>2</sup>Category weights may not sum to total due to rounding.

NOTES: Data for 1988 and 1989 are historical. Data for 1990 are partly historical and partly forecasted. Data for 1991 are forecasted. Q designates quarter of year. Percent change data shown are four-quarter moving averages. The following is an example of how this computation is done: Use the quarterly index levels shown in Tables 9, 11, and 13. Choose the four-quarter period ending for which you would like to calculate the percent change (e.g., year-end 1990: Quarter 3). Count back three quarters so that you have a total of four (e.g., 1990: Quarter 3; 1990: Quarter 2; 1990: Quarter 1; 1989: Quarter 4). Average these four quarters (add the index levels and divide by 4). Now, take the four quarters previous to the four quarters that you just used (e.g., 1989: Quarter 3; 1989: Quarter 2; 1989: Quarter 1; 1988: Quarter 4). Average these four quarters. Finally, compute a percent change using the two averages.

SOURCES: Health Care Financing Administration, Office of the Actuary; Data from the Office of National Health Statistics, Division of Health Cost Analysis. Forecasts created by DRI/McGraw-Hill are for the fourth quarter, 1990.

## Current data

Each input price index is presented in two tables: The first is a percent-change table, and the second provides the actual index numbers from which the percentages were computed. The hospital input price index for PPS is in Tables 8 and 9. The SNF input price index is in Tables 10 and 11. The HHA input price index is in Tables 12 and 13.

## Data highlight

The PPS input price index has been revised, and a new base year of 1987 has been selected (Tables 8 and 9). Effective October 1, 1990, the new PPS input price index was used to set the fiscal year 1991 market basket value for the update of the prospective payment rates. This revision also includes changes in certain variables used for price proxies. Periodically, the various input price indexes are revised so that the cost weights will reflect changes in the mix of goods and services that providers purchase.

**Table 9**  
**Quarterly index levels of the prospective payment system hospital input price index,**  
**by expense category: 1988-91**

Expense category <sup>1</sup>	Base year	1988	1988	1988	1988	1989	1989	1989	1989
	weights								
	1987 <sup>2</sup>	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Total	100.000	103.8	105.4	107.1	108.4	110.0	111.3	112.6	113.6
Wages and salaries	52.212	103.6	104.9	106.4	107.5	108.9	109.9	111.6	112.8
Employee benefits	9.497	105.0	106.3	108.0	109.2	111.6	113.4	115.8	117.4
Other professional fees	1.649	103.8	105.1	106.7	107.3	108.8	109.6	111.4	112.3
Energy and utilities	2.370	97.4	100.5	102.9	98.8	101.5	111.0	110.2	106.7
Fuel oil, coal, and other fuel	0.625	98.6	103.3	101.9	97.9	103.4	123.1	113.9	115.9
Electricity	1.143	96.7	99.2	105.1	98.8	99.5	102.4	108.7	102.1
Natural gas	0.343	96.9	96.2	93.6	97.2	102.4	102.7	101.7	100.3
Motor gasoline	0.229	96.7	105.3	108.3	102.1	102.7	133.4	119.3	112.7
Water and sewerage maintenance	0.036	104.1	105.7	108.3	109.1	110.7	112.1	114.5	115.9
Professional liability insurance	1.433	115.8	124.0	132.6	141.2	130.7	126.2	129.4	130.3
All other	32.839	103.8	105.4	107.2	108.9	111.0	112.4	112.8	113.6
Other products	21.788	104.0	105.9	108.0	109.8	112.2	113.6	113.7	114.5
Pharmaceuticals	3.873	107.0	109.3	111.0	113.5	116.4	119.0	121.7	123.9
Food	3.299	102.3	104.0	106.5	106.9	108.5	109.3	110.1	110.9
Direct purchase	2.111	101.7	103.8	107.0	106.9	108.8	109.3	109.8	110.4
Contract service	1.188	103.3	104.4	105.7	106.7	108.0	109.2	110.6	111.7
Chemicals and cleaning products	3.126	107.5	111.6	116.8	120.5	125.2	125.0	121.0	119.6
Surgical and medical instruments	2.672	101.2	101.4	102.3	103.7	104.9	106.6	106.4	107.4
Photographic supplies	2.623	100.9	102.1	102.9	105.2	109.3	111.4	112.6	113.8
Rubber and plastics	2.323	104.8	106.5	108.3	109.0	110.0	110.7	110.5	110.4
Paper products	1.399	106.3	108.9	111.8	114.0	116.2	117.8	117.6	118.1
Apparel	1.142	102.1	103.2	103.5	103.4	104.0	104.6	105.7	106.6
Minor machinery and equipment	0.497	102.0	102.5	103.3	104.1	105.4	106.3	107.3	107.9
Miscellaneous products	0.833	101.4	102.6	103.7	104.8	106.6	108.7	108.6	109.9
Other services	11.051	103.4	104.4	105.5	107.1	108.7	110.2	111.0	112.0
Business services	3.845	104.8	104.8	105.6	107.0	109.4	110.8	112.1	113.3
Computer and data processing	1.992	106.2	107.4	109.0	111.6	114.0	115.8	117.4	119.5
Transportation and shipping	1.233	102.9	104.0	105.4	106.4	107.4	111.3	110.3	110.7
Telephone	0.987	99.4	99.6	98.8	99.5	99.7	100.6	100.8	100.1
Blood services	0.588	96.9	97.4	101.2	104.8	105.8	105.6	105.4	105.5
Postage	0.372	100.0	113.5	113.5	113.5	113.5	113.5	113.5	113.5
Other—labor intensive	1.233	102.3	103.3	104.6	105.8	106.5	107.1	108.1	109.6
Other—nonlabor intensive	0.800	103.3	104.6	106.0	107.1	108.3	110.0	110.9	112.0

See footnotes at end of table.

**Table 9—Continued**  
**Quarterly index levels of the prospective payment system hospital input price index,**  
**by expense category: 1988-91**

Expense category <sup>1</sup>	Base year weights 1987 <sup>2</sup>	1990 Q1	1990 Q2	1990 Q3	1990 Q4	1991 Q1	1991 Q2	1991 Q3	1991 Q4
Total	100.000	115.3	116.4	117.8	119.6	122.1	123.3	124.9	126.1
Wages and salaries	52.212	114.4	115.5	116.7	118.0	120.1	121.2	123.3	124.7
Employee benefits	9.497	120.9	122.4	124.3	125.6	128.1	129.6	131.9	133.4
Other professional fees	1.649	114.1	114.9	116.7	118.0	119.9	120.8	123.5	124.9
Energy and utilities	2.370	110.2	110.2	119.3	142.6	149.8	148.1	145.6	140.7
Fuel oil, coal, and other fuel	0.625	124.0	120.7	138.7	198.0	208.8	198.7	189.2	177.2
Electricity	1.143	102.2	104.2	110.1	112.4	114.9	117.2	118.5	118.0
Natural gas	0.343	103.7	98.4	96.5	107.4	114.2	119.1	121.2	122.4
Motor gasoline	0.229	121.1	127.9	146.6	197.3	219.6	210.9	201.2	183.4
Water and sewerage maintenance	0.036	118.1	119.7	122.2	124.2	126.4	128.4	130.9	133.4
Professional liability insurance	1.433	130.8	132.0	131.4	122.0	127.8	132.5	132.5	133.3
All other	32.839	114.9	116.0	116.9	118.9	121.3	122.8	123.8	125.0
Other products	21.788	115.7	116.7	117.5	119.5	122.0	123.5	124.5	125.5
Pharmaceuticals	3.873	127.6	130.4	131.6	133.8	137.7	140.9	143.3	146.7
Food	3.299	112.4	114.3	114.9	115.9	117.6	118.8	120.3	120.9
Direct purchase	2.111	112.0	114.1	114.4	114.9	116.7	117.7	119.1	119.2
Contract service	1.188	113.0	114.7	115.8	117.7	119.2	120.8	122.4	124.0
Chemicals and cleaning products	3.126	118.7	118.4	120.0	125.0	131.5	132.4	133.3	132.9
Surgical and medical instruments	2.672	108.2	109.0	108.7	109.4	110.7	111.5	111.9	112.5
Photographic supplies	2.623	115.2	115.5	117.0	119.0	120.2	121.3	120.4	121.0
Rubber and plastics	2.323	110.9	111.1	111.0	112.2	113.7	115.2	116.3	116.6
Paper products	1.399	118.0	118.7	119.2	120.5	121.9	123.4	124.7	126.0
Apparel	1.142	107.5	107.8	108.2	108.3	109.3	110.4	110.9	111.0
Minor machinery and equipment	0.497	108.9	109.4	109.8	110.5	111.9	113.2	114.0	114.9
Miscellaneous products	0.833	112.1	112.3	113.8	119.2	120.8	121.1	121.6	122.2
Other services	11.051	113.5	114.6	115.9	117.8	119.8	121.3	122.5	124.1
Business services	3.845	115.4	116.9	117.5	119.6	121.7	122.6	123.6	125.2
Computer and data processing	1.992	120.7	122.1	125.0	127.4	129.7	131.6	134.1	136.2
Transportation and shipping	1.233	112.7	113.4	115.6	118.3	119.7	121.7	123.0	126.0
Telephone	0.987	100.9	101.1	102.1	103.0	104.1	105.2	106.1	107.2
Blood services	0.588	105.5	105.9	107.3	107.9	109.4	109.5	110.6	111.1
Postage	0.372	113.5	113.5	113.5	113.5	116.5	125.9	125.9	125.9
Other—labor intensive	1.233	110.5	111.6	111.7	113.2	115.9	116.6	117.2	118.2
Other—nonlabor intensive	0.800	113.9	115.2	117.3	119.6	120.8	122.2	123.6	124.3

<sup>1</sup>Data sources used to estimate the input price index relative weights and choice of price proxies were taken from the *Federal Register* (1990).

<sup>2</sup>Category weights may not sum to total due to rounding.

NOTES: Data for 1988 and 1989 are historical. Data for 1990 are partly historical and partly forecasted. Data for 1991 are forecasted. Q designates quarter of year.

SOURCES: Health Care Financing Administration, Office of the Actuary; Data from the Office of National Health Statistics, Division of Health Cost Analysis. Forecasts created by DRI/McGraw-Hill are for the fourth quarter, 1990.

**Table 10**  
**Percent change in four-quarter averages in the skilled nursing facility input price index,**  
**by expense category: 1988-91**

Expense category <sup>1</sup>	Base year weights 1977 <sup>2</sup>	Four quarters ending							
		1988 Q1	1988 Q2	1988 Q3	1988 Q4	1989 Q1	1989 Q2	1989 Q3	1989 Q4
Total	100.00	3.9	4.3	4.6	5.0	5.7	6.2	6.4	6.5
Wages and salaries	63.02	4.0	4.5	4.9	5.4	6.3	7.0	7.3	7.4
Employee benefits	7.60	3.3	3.8	4.5	5.1	5.0	4.8	4.5	4.3
Food	9.74	3.3	2.9	3.5	4.3	5.1	5.8	5.5	5.2
Direct purchase	4.93	2.6	2.3	3.3	4.5	5.4	6.0	5.2	4.5
Contract service	4.81	3.8	3.4	3.7	4.1	4.9	5.7	5.8	5.8
Fuel and other energy	4.27	2.2	2.9	2.2	1.0	1.2	1.5	2.3	3.9
Electricity	1.21	0.3	0.9	1.0	1.4	1.6	2.1	2.8	2.8
Natural gas	0.91	-3.8	-3.0	-2.1	-0.6	1.2	2.4	3.0	2.8
Fuel oil and coal	1.66	6.9	7.9	5.0	0.2	-0.8	-1.0	0.3	4.7
Water and sewerage maintenance	0.49	5.4	5.3	5.3	5.5	5.7	6.0	6.0	6.1
All other	15.37	4.9	4.9	4.9	4.9	5.1	5.4	5.5	5.6
Drugs	1.50	8.8	8.3	8.0	7.9	8.1	8.5	9.0	9.1
Supplies	3.28	4.1	4.1	4.1	4.1	4.3	4.6	4.8	4.8
Health services	1.21	7.2	7.1	7.0	7.2	7.4	7.4	7.4	7.3
Other business services	4.59	4.2	4.3	4.4	4.6	4.7	4.8	4.9	4.9
Miscellaneous	4.79	4.1	4.1	4.1	4.1	4.3	4.6	4.8	4.8

Expense category <sup>1</sup>	Base year weights 1977 <sup>2</sup>	Four quarters ending							
		1990 Q1	1990 Q2	1990 Q3	1990 Q4	1991 Q1	1991 Q2	1991 Q3	1991 Q4
Total	100.00	6.3	6.2	6.2	6.3	6.3	6.6	6.9	6.8
Wages and salaries	63.02	7.0	6.8	6.6	6.4	6.3	6.5	6.9	7.2
Employee benefits	7.60	4.6	4.9	5.3	5.8	5.9	5.8	5.7	5.3
Food	9.74	4.8	4.6	4.7	4.7	4.4	4.1	4.0	3.9
Direct purchase	4.93	3.5	3.3	3.8	4.0	4.4	4.1	4.1	4.0
Contract service	4.81	6.0	5.6	5.5	5.3	4.4	4.0	3.9	3.8
Fuel and other energy	4.27	5.8	6.0	6.8	9.9	10.8	14.3	16.5	11.7
Electricity	1.21	3.1	2.9	2.5	2.6	3.0	3.7	5.4	6.0
Natural gas	0.91	2.1	1.2	0.4	1.3	3.5	8.8	15.6	18.5
Fuel oil and coal	1.66	10.2	11.5	14.6	22.3	22.5	28.1	28.3	13.2
Water and sewerage maintenance	0.49	6.2	6.4	6.6	6.9	6.9	7.0	7.1	7.2
All other	15.37	5.7	5.6	5.8	6.1	6.2	6.3	6.3	6.0
Drugs	1.50	9.3	9.5	9.1	8.8	8.4	8.0	8.2	8.6
Supplies	3.28	4.9	4.8	5.1	5.6	5.8	6.2	6.1	5.3
Health services	1.21	7.1	7.1	7.2	7.4	7.8	7.9	7.9	7.7
Other business services	4.59	5.0	5.1	5.1	5.3	5.3	5.4	5.4	5.3
Miscellaneous	4.79	4.9	4.8	5.1	5.6	5.8	6.2	6.1	5.3

<sup>1</sup>Data sources used to estimate the input price index relative weights and choice of price proxies were taken from the *Federal Register* (1987).

<sup>2</sup>Category weights may not sum to total due to rounding.

NOTES: Data for 1988 and 1989 are historical. Data for 1990 are partly historical and partly forecasted. Data for 1991 are forecasted. Q designates quarter of year. Percent change data shown are four-quarter moving averages. The following is an example of how this computation is done: Use the quarterly index levels shown in Tables 9, 11, and 13. Choose the four-quarter period ending for which you would like to calculate the percent change (e.g., year-end 1990: Quarter 3). Count back three quarters so that you have a total of four (e.g., 1990: Quarter 3; 1990: Quarter 2; 1990: Quarter 1; 1989: Quarter 4). Average these four quarters (add the index levels and divide by 4). Now, take the four quarters previous to the four quarters that you just used (e.g., 1989: Quarter 3; 1989: Quarter 2; 1989: Quarter 1; 1988: Quarter 4). Average these four quarters. Finally, compute a percent change using the two averages.

SOURCES: Health Care Financing Administration, Office of the Actuary; Data from the Office of National Health Statistics, Division of Health Cost Analysis. Forecasts created by DRI/McGraw-Hill are for the fourth quarter, 1990.

Table 11

## Quarterly index levels in the skilled nursing facility input price index, by expense category: 1988-91

Expense category <sup>1</sup>	Base year	1988	1988	1988	1988	1989	1989	1989	1989
	weights 1977 <sup>2</sup>	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Total	100.00	190.6	192.8	196.8	199.8	203.5	205.8	208.9	212.3
Wages and salaries	63.02	188.7	190.9	195.7	199.2	203.4	205.6	209.4	213.0
Employee benefits	7.60	201.7	203.4	205.9	208.2	210.2	212.4	214.6	217.1
Food	9.74	161.6	164.2	168.0	169.6	172.1	173.9	174.8	177.1
Direct purchase	4.93	147.9	150.8	154.9	156.0	158.1	158.7	158.9	161.2
Contract service	4.81	175.7	177.9	181.5	183.5	186.4	189.5	191.2	193.4
Fuel and other energy	4.27	196.9	198.2	198.1	198.7	202.4	204.3	204.7	211.4
Electricity	1.21	194.1	194.6	194.8	198.8	198.5	201.3	200.7	203.7
Natural gas	0.91	216.6	217.2	217.8	223.0	227.3	222.8	221.7	227.5
Fuel oil and coal	1.66	182.1	183.7	181.4	176.7	183.0	187.5	188.2	199.3
Water and sewerage maintenance	0.49	217.4	220.6	226.1	227.8	231.1	234.0	239.0	241.9
All other	15.37	209.2	212.1	214.9	217.6	220.9	224.3	226.9	229.5
Drugs	1.50	249.5	255.0	259.0	264.8	271.5	277.7	283.8	289.1
Supplies	3.28	191.5	193.9	196.5	198.5	200.7	204.0	205.7	207.7
Health services	1.21	232.9	237.2	241.5	244.2	250.9	254.5	258.7	261.8
Other business services	4.59	221.0	223.3	225.9	228.8	231.9	234.4	237.1	240.0
Miscellaneous	4.79	191.5	193.9	196.5	198.5	200.7	204.0	205.7	207.7

Expense category <sup>1</sup>	Base year	1990	1990	1990	1990	1991	1991	1991	1991
	weights 1977 <sup>2</sup>	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Total	100.00	216.2	218.9	221.7	226.1	229.4	235.3	238.0	239.9
Wages and salaries	63.02	216.4	219.8	222.7	225.6	229.2	237.2	240.0	241.7
Employee benefits	7.60	221.3	224.4	227.3	230.7	233.8	236.7	239.4	242.2
Food	9.74	180.6	182.3	183.0	184.9	187.0	188.9	190.7	192.4
Direct purchase	4.93	162.7	165.7	166.0	167.9	169.8	171.5	173.0	174.3
Contract service	4.81	198.9	199.3	200.4	202.3	204.6	206.8	208.9	210.9
Fuel and other energy	4.27	222.8	212.6	218.4	250.8	252.5	252.0	253.0	252.8
Electricity	1.21	205.0	206.9	203.3	210.0	214.9	218.0	220.0	221.6
Natural gas	0.91	231.5	220.9	218.9	239.9	255.1	266.9	276.7	280.7
Fuel oil and coal	1.66	224.0	201.2	218.3	283.9	275.2	263.7	258.1	252.7
Water and sewerage maintenance	0.49	246.5	249.9	255.1	259.2	263.8	268.0	273.2	278.4
All other	15.37	233.8	237.0	240.6	244.8	248.4	251.9	255.1	257.8
Drugs	1.50	297.6	304.3	307.0	312.1	321.1	328.7	334.4	342.3
Supplies	3.28	211.2	213.6	217.5	221.8	223.9	226.6	229.2	230.5
Health services	1.21	267.5	273.2	278.4	283.0	289.5	294.6	299.1	303.6
Other business services	4.59	243.8	246.7	249.6	253.3	256.8	260.0	263.2	266.1
Miscellaneous	4.79	211.2	213.6	217.5	221.8	223.9	226.6	229.2	230.5

<sup>1</sup>Data sources used to estimate the input price index relative weights and choice of price proxies were taken from the *Federal Register* (1987).

<sup>2</sup>Category weights may not sum to total due to rounding.

NOTES: Data for 1988 and 1989 are historical. Data for 1990 are partly historical and partly forecasted. Data for 1991 are forecasted. Q designates quarter of year.

SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Office of National Health Statistics, Division of Health Cost Analysis. Forecasts created by DRI/McGraw-Hill are for the fourth quarter, 1990.

**Table 12**  
**Percent change in four-quarter averages in the home health agency input price index,**  
**by expense category: 1988-91**

Expense category <sup>1</sup>	Base year weights 1976 <sup>2</sup>	Four quarters ending							
		1988 Q1	1988 Q2	1988 Q3	1988 Q4	1989 Q1	1989 Q2	1989 Q3	1989 Q4
Total	100.00	5.0	5.4	5.8	6.0	6.2	6.2	6.2	6.1
Wages and salaries	65.14	5.5	6.0	6.5	6.8	7.0	6.8	6.8	6.6
Employee benefits	7.90	3.3	3.8	4.5	5.1	5.0	4.8	4.5	4.3
Transportation	4.87	4.6	4.6	4.0	3.1	3.3	4.3	4.7	5.0
Office costs	2.79	4.2	4.3	4.4	4.6	4.7	4.8	4.9	4.9
Rent	1.35	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.9
Nonrental space occupancy	1.17	2.2	2.9	2.2	1.0	1.2	1.6	2.4	4.0
Medical and nursing supplies and equipment	2.81	3.7	3.7	3.5	3.6	4.3	4.9	5.4	5.8
Contract services	6.87	5.4	5.8	6.0	6.2	6.2	6.2	6.1	6.1
Miscellaneous	7.10	4.1	4.1	4.1	4.1	4.3	4.6	4.7	4.8

Expense category <sup>1</sup>	Base year weights 1976 <sup>2</sup>	Four quarters ending							
		1990 Q1	1990 Q2	1990 Q3	1990 Q4	1991 Q1	1991 Q2	1991 Q3	1991 Q4
Total	100.00	5.5	5.4	5.4	5.5	5.6	5.6	5.6	5.6
Wages and salaries	65.14	5.7	5.6	5.6	5.8	6.0	6.0	6.0	6.0
Employee benefits	7.90	5.3	5.8	5.9	5.8	5.7	5.3	5.7	5.3
Transportation	4.87	3.5	3.4	2.9	3.2	3.3	3.6	3.3	3.6
Office costs	2.79	5.2	5.2	5.1	5.0	5.0	5.0	5.0	5.0
Rent	1.35	4.2	4.1	4.0	3.8	3.4	3.5	3.4	3.5
Nonrental space occupancy	1.17	6.0	4.8	1.5	1.2	1.9	2.9	1.9	2.9
Medical and nursing supplies and equipment	2.81	5.9	5.8	6.1	6.4	6.7	6.9	6.7	6.9
Contract services	6.87	5.5	5.4	5.4	5.5	5.6	5.6	5.6	5.6
Miscellaneous	7.10	4.7	4.7	4.4	4.3	4.3	4.2	4.3	4.2

<sup>1</sup>Data sources used to estimate the input price index relative weights and choice of price proxies were taken from the *Federal Register* (1988).

<sup>2</sup>Category weights may not sum to total due to rounding.

NOTES: Data for 1988 and 1989 are historical. Data for 1990 are partly historical and partly forecasted. Data for 1991 are forecasted. Q designates quarter of year. Percent change data shown are four-quarter moving averages. The following is an example of how this computation is done: Use the quarterly index levels shown in Tables 9, 11, and 13. Choose the four-quarter period ending for which you would like to calculate the percent change (e.g., year-end 1990: Quarter 3). Count back three quarters so that you have a total of four (e.g., 1990: Quarter 3; 1990: Quarter 2; 1990: Quarter 1; 1989: Quarter 4). Average these four quarters (add the index levels and divide by 4). Now, take the four quarters previous to the four quarters that you just used (e.g., 1989: Quarter 3; 1989: Quarter 2; 1989: Quarter 1; 1988: Quarter 4). Average these four quarters. Finally, compute a percent change using the two averages.

SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Office of National Health Statistics, Division of Health Cost Analysis. Forecasts created by DR/McGraw-Hill are for the fourth quarter, 1990.

Table 13

## Quarterly index levels of the home health agency input price index, by expense category: 1988-91

Expense category <sup>1</sup>	Base year weights	1988	1988	1988	1988	1989	1989	1989	1989
	1976 <sup>2</sup>	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Total	100.00	228.4	231.6	235.4	239.4	242.9	245.3	249.9	253.4
Wages and salaries	65.14	235.6	239.1	243.5	248.3	252.1	254.0	259.9	263.9
Employee benefits	7.90	224.0	225.9	228.6	231.1	233.4	235.9	238.2	241.1
Transportation	4.87	193.9	195.9	198.6	200.6	202.5	209.7	207.8	208.6
Office costs	2.79	237.5	240.2	243.0	246.0	249.2	251.9	255.0	258.1
Rent	1.35	206.5	207.6	210.1	212.2	214.0	215.6	218.3	221.0
Nonrental space occupancy	1.17	221.8	223.8	223.3	222.5	228.2	230.6	230.9	236.9
Medical and nursing supplies and equipment	2.81	199.9	203.9	206.4	208.7	210.9	215.9	218.2	221.6
Contract services	6.87	228.5	231.6	235.4	239.5	242.9	245.4	249.9	253.5
Miscellaneous	7.10	204.4	206.6	209.1	211.4	214.2	217.3	218.9	221.0

Expense category <sup>1</sup>	Base year weights	1990	1990	1990	1990	1991	1991	1991	1991
	1976 <sup>2</sup>	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Total	100.00	256.8	258.4	262.7	267.1	271.0	273.4	277.8	281.8
Wages and salaries	65.14	266.9	268.3	273.5	278.6	282.9	285.0	290.1	294.6
Employee benefits	7.90	245.8	249.2	252.4	256.2	259.6	262.8	265.8	268.9
Transportation	4.87	212.5	213.7	214.6	215.8	219.0	219.9	222.7	225.5
Office costs	2.79	262.1	265.3	268.4	271.4	274.8	278.3	281.8	285.2
Rent	1.35	222.6	224.6	228.3	229.2	230.4	232.5	235.2	237.8
Nonrental space occupancy	1.17	251.7	240.3	237.9	241.5	244.3	247.8	251.7	255.7
Medical and nursing supplies and equipment	2.81	223.3	228.4	231.0	234.6	238.9	244.3	247.0	250.3
Contract services	6.87	256.9	258.4	228.7	231.4	234.0	236.5	239.1	241.7
Miscellaneous	7.10	225.4	227.2	262.8	267.2	271.1	273.4	277.8	281.9

<sup>1</sup>Data sources used to estimate the input price index relative weights and choice of price proxies were taken from *Federal Register* (1988).

<sup>2</sup>Category weights may not sum to total due to rounding.

NOTE: Data for 1988 and 1989 are historical. Data for 1990 are partly historical and partly forecasted. Data for 1991 are forecasted. Q designates quarter of year.

SOURCE: Health Care Financing Administration, Office of the Actuary; Data from the Office of National Health Statistics, Division of Health Cost Analysis. Forecasts created by DRI/McGraw-Hill are for the fourth quarter, 1990.

## National economic indicators

To put health-related economic trends into perspective, this section shifts focus to discuss national indicators of output, employment, and inflation. During the first three quarters of 1990, the gross national product (GNP) and employment grew at slower rates than in the past and the unemployment rate began to rise. In the medical care sector, however, growth in employment remained strong (Figure 6). Growth in prices paid for medical care goods and services accelerated; the gap in growth between prices paid for medical care and for all items widened (Figure 7). These indicators point to aggregate health care costs continuing their upward climb. As growth in the Nation's output slows, the share of the Nation's resources devoted to health care will increase sharply: The share of GNP devoted to health is expected to grow at an accelerated rate.

### Output and income

GNP, the most widely used measure of the Nation's output, was \$5.5 trillion during the third calendar quarter of 1990 (seasonally adjusted at annual rates). The growth of "real" GNP (also called "constant dollar" or "price-deflated" GNP) rose to 1.1 percent for the third quarter of 1990. For the fourth consecutive quarter, "real"

growth fell below 2 percent. These are the lowest growth rates since the first quarter of 1983.

Personal income rose to \$4.7 trillion during the third quarter of 1990, up 6.3 percent from the same quarter of 1989. Disposable personal income (personal income net of taxes) grew 6.1 percent during the same period, reaching a level of \$4.0 trillion. The portion of disposable income that was saved rather than spent (personal saving rate) was 4.1 percent.

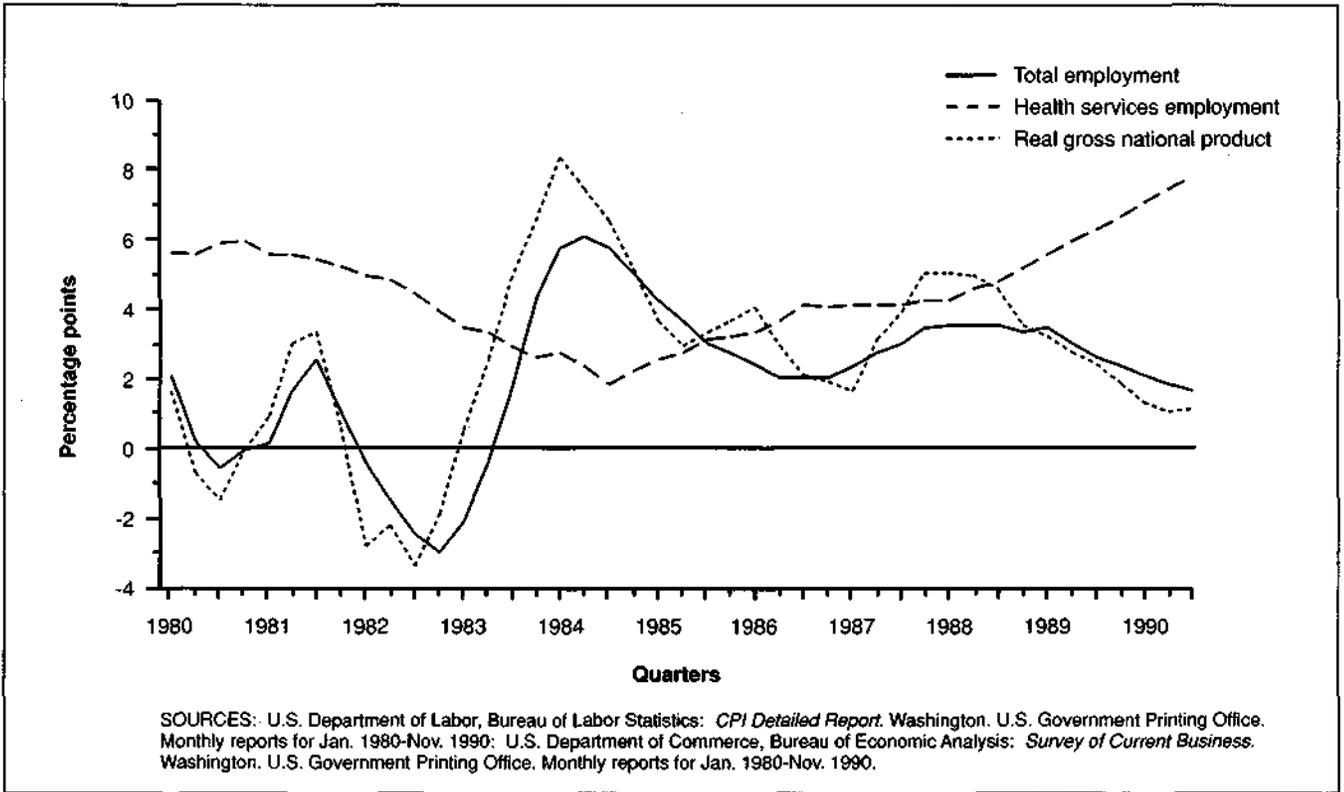
### Employment, unemployment, and earnings

The slowdown in the real economic growth during the first three quarters of 1990, is beginning to have an effect on the unemployment rate. From the third quarter of 1989 to the second quarter of 1990, the unemployment rate held constant at 5.3 percent. During the third calendar quarter of 1990, the unemployment rate for all workers was 5.6 percent, an increase of 0.3 percentage points from the same period a year ago.

Private nonagricultural workers occupied 93.0 million jobs in the third quarter of 1990, an increase of 1.6 percent from the third quarter in 1989. In contrast, total jobs held by health service workers expanded 7.7 percent, to 8.2 million, between the third quarter of 1989 and the third quarter of 1990.

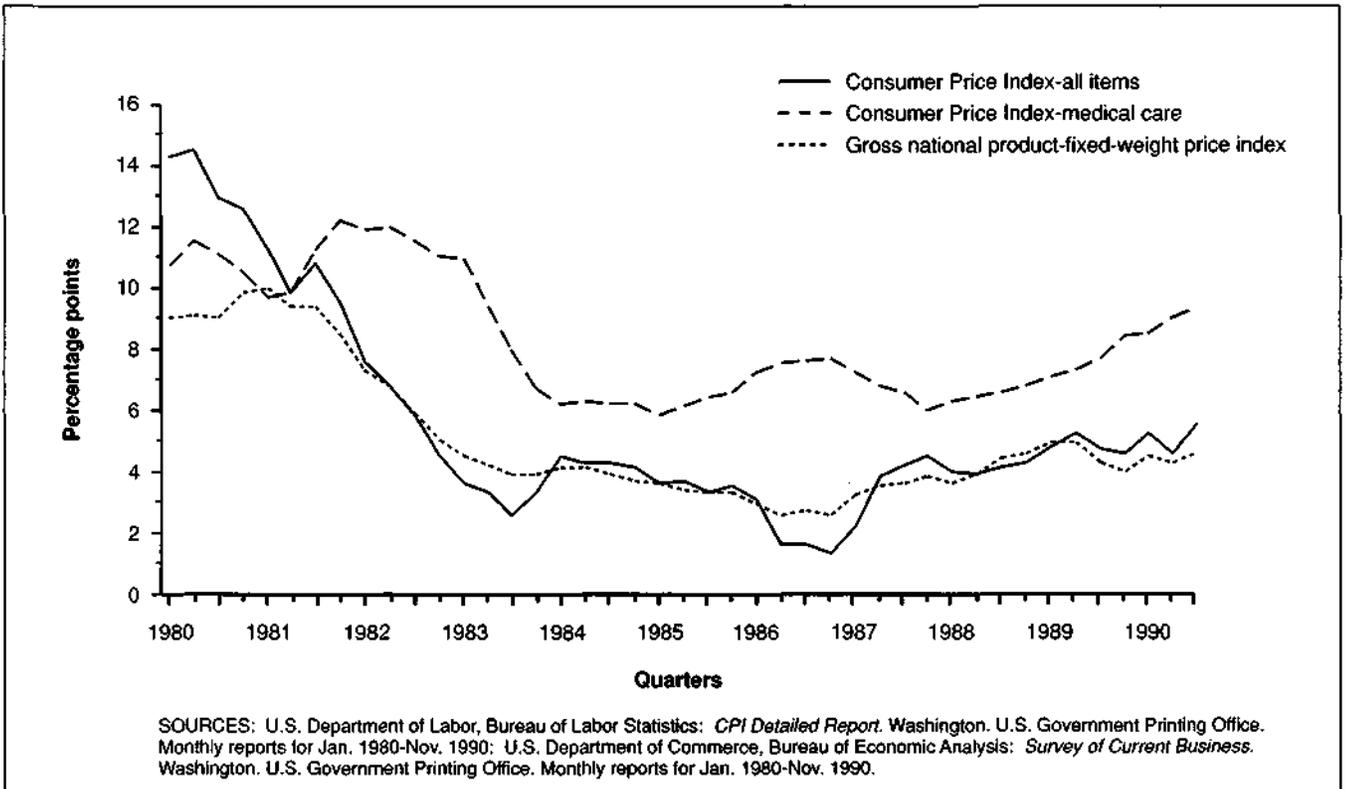
**Figure 6**

**Percent change in measures of employment from the same period of previous year: 1980-90**



**Figure 7**

**Percent change in measures of price inflation from the same period of previous year: 1980-90**



**Table 14**  
**Selected national economic indicators: 1987-90**

Indicator	Calendar year			1987 Q3	1988 Q3	1989 Q3	1989 Q4	1990 Q1	1990 Q2	1990 Q3
	1987	1988	1989							
<b>Gross national product</b>										
Billions of dollars	\$4,516	\$4,874	\$5,201	\$4,552	\$4,918	\$5,239	\$5,289	\$5,375	\$5,443	\$5,521
Billions of 1982 dollars	\$3,845	\$4,017	\$4,118	\$3,859	\$4,032	\$4,130	\$4,133	\$4,151	\$4,155	\$4,173
Implicit price deflator (1982 = 100.0)	117.4	121.3	126.3	118.0	122.0	126.8	128.0	129.5	131.0	132.3
<b>Employment, hours, and earnings</b>										
Unemployment rate, all workers	6.2	5.5	5.3	6.0	5.5	5.3	5.3	5.3	5.3	5.6
Private nonagricultural workers:										
Total employment in thousands	85,190	88,150	90,644	86,206	89,235	91,539	91,821	90,436	92,272	93,011
Average weekly hours	34.8	34.7	34.6	35.0	34.9	34.9	34.6	34.2	34.5	34.8
Average hourly earnings	\$8.98	\$9.28	\$9.66	\$8.96	\$9.29	\$9.67	\$9.82	\$9.90	\$9.97	\$10.05
Health service workers:										
Total employment in thousands	6,805	7,121	7,551	6,860	7,181	7,624	7,735	7,872	8,041	8,209
Average weekly hours	32.4	32.5	32.5	32.6	32.5	32.6	32.5	32.4	32.5	32.8
Average hourly earnings	\$8.69	\$9.21	\$9.82	\$8.73	\$9.26	\$9.90	\$10.07	\$10.24	\$10.31	\$10.47
<b>Personal income and savings</b>										
Income in billions	\$3,766	\$4,071	\$4,384	\$3,783	\$4,112	\$4,403	\$4,469	\$4,563	\$4,622	\$4,680
Disposable income in billions	\$3,195	\$3,479	\$3,726	\$3,211	\$3,520	\$3,743	\$3,800	\$3,888	\$3,926	\$3,971
Savings in billions	\$93	\$146	\$172	\$66	\$157	\$155	\$174	\$191	\$195	\$165
Personal saving rate	2.9	4.2	4.6	2.1	4.5	4.1	4.6	4.9	5.0	4.1
<b>Prices<sup>1</sup></b>										
Gross national product fixed-weight price index (1982 = 100.0)	118.9	123.9	129.5	119.4	124.7	130.0	131.2	133.3	134.6	136.0
Consumer Price Index, all items	113.6	118.3	124.0	114.4	119.1	124.7	125.9	128.0	129.3	131.6
All items less medical care	112.6	117.0	122.4	113.3	117.9	123.1	124.2	126.3	127.5	129.6
Apparel and upkeep	110.6	115.4	118.6	110.0	114.4	116.7	121.3	120.8	125.2	123.3
Energy	88.6	89.2	94.3	92.0	91.9	97.1	93.7	96.5	97.3	103.8
Food and beverages	113.5	118.2	124.9	113.9	119.4	125.6	126.7	130.7	131.3	132.7
Housing: shelter	121.2	127.1	132.8	122.0	128.0	133.9	135.2	136.9	138.6	141.9
Medical care	130.1	138.6	149.3	131.2	139.9	150.7	153.7	157.4	160.8	164.8
Producer Price Index, <sup>2</sup> finished consumer goods	103.6	106.2	112.1	104.3	107.0	112.3	113.5	116.3	116.3	118.4

<sup>1</sup>Base period = 1982-84, unless noted.

<sup>2</sup>Formerly called the "Wholesale Price Index."

NOTE: Q designates quarter of year. Quarterly data are not seasonally adjusted.

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis: *Survey of Current Business*. Washington, U.S. Government Printing Office. Monthly reports for Jan. 1987-Nov. 1990; U.S. Department of Labor, Bureau of Labor Statistics: *Employment and Earnings*. Washington, U.S. Government Printing Office. Monthly reports for Jan. 1987-Sept. 1990.

## Prices

The GNP fixed-weight price index, the most comprehensive measure of pure price inflation, grew 4.6 percent between the third quarters of 1989 and 1990. The GNP implicit price deflator (which reflects changes in the composition of output as well as in price inflation) rose 4.3 percent between the third quarter of 1989 and that of 1990. A more limited measure of price change covers only the purchases of consumer goods. This

measure, the CPI for all items, increased to 5.5 percent between the third quarters of 1989 and 1990 (Tables 14 and 15). While all price measures displayed growth when compared with the previous year, medical care prices increased at almost twice the pace exhibited by the other measures.

The Producer Price Index for finished consumer goods grew 5.4 percent between the third quarter of 1989 and the third quarter of 1990.

**Table 15**  
**Percent change in selected national economic indicators: 1987-90**

Indicator	Calendar year			1987 Q3	1988 Q3	1989 Q3	1989 Q4	1990 Q1	1990 Q2	1990 Q3
	1987	1988	1989							
<b>Gross national product</b>	Annual percent change			Percent change from same period of previous year						
Billions of dollars	6.7	7.9	6.7	7.0	8.0	6.5	5.6	5.4	5.2	5.4
Billions of 1982 dollars	3.4	4.5	2.5	3.9	4.5	2.4	1.8	1.3	1.0	1.1
Implicit price deflator (1982 = 100.0)	3.1	3.3	4.1	3.0	3.4	3.9	3.7	3.9	4.1	4.3
<b>Employment, hours, and earnings</b>										
Unemployment rate, all workers <sup>1</sup>	-0.8	-0.7	-0.2	-1.0	-0.5	-0.2	0.0	0.1	0.0	0.3
Private nonagricultural workers:										
Total employment in thousands	2.8	3.5	2.8	3.0	3.5	2.6	2.3	2.1	1.8	1.6
Average weekly hours	0.1	-0.2	-0.3	0.3	-0.3	0.0	-0.6	-0.3	-0.3	-0.3
Average hourly earnings	2.5	3.4	4.1	2.6	3.6	4.2	4.0	3.8	4.0	3.9
Health services workers:										
Total employment in thousands	4.1	4.6	6.0	4.1	4.7	6.2	6.6	7.0	7.4	7.7
Average weekly hours	-0.1	0.2	0.1	0.3	-0.3	0.3	0.3	0.0	0.3	0.6
Average hourly earnings	4.2	5.9	6.7	4.2	6.1	6.9	6.5	6.4	6.4	5.8
<b>Personal income and savings</b>										
Income in billions	6.8	8.1	7.7	6.9	8.7	7.1	6.8	6.1	5.9	6.3
Disposable income in billions	6.0	8.9	7.1	6.2	9.6	6.3	6.2	6.2	6.2	6.1
Savings in billions	-25.9	57.5	18.0	-38.0	137.4	-1.5	17.2	0.8	15.5	6.6
Personal saving rate <sup>1</sup>	-1.3	1.3	0.4	-1.4	2.4	-0.4	0.5	-0.3	0.4	0.0
<b>Prices<sup>2</sup></b>										
Gross national product fixed-weight price index (1982 = 100.0)	3.5	4.1	4.5	3.6	4.4	4.3	4.0	4.5	4.3	4.6
Consumer Price Index, all items	3.7	4.1	4.8	4.2	4.1	4.7	4.6	5.2	4.6	5.5
All items less medical care	3.4	3.9	4.6	4.0	4.0	4.4	4.4	5.0	4.3	5.3
Apparel and upkeep	4.4	4.3	2.8	4.0	4.0	2.0	1.5	3.6	4.6	5.7
Energy	0.4	0.8	5.7	6.7	-0.2	5.7	5.0	8.0	0.2	6.8
Food and beverages	4.1	4.1	5.7	3.7	4.9	5.2	5.3	6.5	5.4	5.6
Housing: shelter	4.7	4.8	4.5	4.7	4.9	4.6	4.8	5.0	5.2	6.0
Medical care	6.6	6.5	7.7	6.6	6.6	7.7	8.4	8.5	9.0	9.3
Producer Price Index, <sup>3</sup> finished consumer goods	2.1	2.5	5.6	3.7	2.6	4.9	5.1	5.7	3.2	5.4

<sup>1</sup>Change in rate, rather than percent change.

<sup>2</sup>Base period = 1982-84, unless noted.

<sup>3</sup>Formerly called the "Wholesale Price Index."

NOTE: Q designates quarter of year. Quarterly data are not seasonally adjusted.

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis: *Survey of Current Business*. Washington, U.S. Government Printing Office. Monthly reports for Jan. 1987-Nov. 1990; U.S. Department of Labor, Bureau of Labor Statistics: *Employment and Earnings*. Washington, U.S. Government Printing Office. Monthly reports for Jan. 1987-Sept. 1990.

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