

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; health care 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

The American Hospital Association reported that operating expenses of community hospitals reached \$59 billion in the second quarter of 1991 (Table 1), an increase of 9.7 percent from the same quarter of 1990 (Table 2). Although this rate of growth is somewhat higher than that in the first quarter of 1991, it is not as high as the growth experienced in calendar year 1990. If trends continue throughout the rest of 1991, we expect to see slower but still significant growth in community hospital expenditures. Annual growth in hospital operating expenses for 1991 will most likely be about 1 to 2 percentage points lower than for 1990.

As a service-oriented institution, hospitals are labor-intensive, with labor expenses consuming 54 percent of all operating expenses. Labor and non-labor expenses grew at different rates from the second quarter of 1990 to the second quarter of 1991 (growing 9.1 and 10.3 percent, respectively).

The cost-containment efforts of the past several years have concentrated on the largest segment of health care spending—hospital care. These efforts have caused a shift towards more care being delivered in a less costly outpatient setting. In 1983, 86 percent of operating expenses covered inpatient care. By 1984, both private and public financers of hospital care had implemented programs to control costs, which encouraged the shift from inpatient to outpatient care. By 1990, the inpatient share of expenses had dropped to 76 percent. In the second quarter of 1991, inpatient expenses totalled nearly \$44 billion and accounted for just under three-quarters of operating expenses, the lowest share ever. For this period, the average cost per inpatient day was \$835 and the average cost per admission was \$5,375 (Table 1).

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Hospital utilization continued to decline in the second quarter of 1991 compared with the same period one year earlier. Although the number of admissions and inpatient days continued to experience declines in the second quarter of 1991 from the same quarter of 1990, the rate of decline was much lower than in the last two quarters of 1990 and the first quarter of 1991. The war in the Persian Gulf affected a large number of people, both military and civilian. The decreasing utilization in the third and fourth quarters of 1990 and the first quarter of 1991 may have been caused by events associated with the war. In addition, the ongoing recession in combination with a light flu season probably contributed to decreased hospital utilization. The rate of growth in number of surgical operations also dropped slightly—0.2 percent—in the second quarter of 1991 when compared with the same period one year earlier (Table 2). During the second quarter of 1991, 5.6 million surgical operations were performed, including both inpatient and outpatient procedures. While growth in this figure has only been negative for the last two periods, it has followed the same pattern of growth as admissions and inpatient days (Figure 1). People may have been postponing elective surgical procedures because of uncertain economic conditions.

Although both admissions and inpatient days have been decreasing in the past 5 years, the average length of stay for adults has remained around 6.6 days. In the second quarter of 1991, however, inpatient days decreased more rapidly than admissions, resulting in a drop in the average adult length of stay to 6.4 days. An average length of stay this low has only occurred in one other quarter since 1980—the third quarter of 1985.

In response to diminishing inpatient utilization, hospitals have gradually been reducing the number of beds since 1983. However, this downsizing has not kept pace with decreasing inpatient days. As a result, occupancy rates have been falling. In the second quarter of 1991, community hospitals operated an average of 913,000 beds with an average of 63.4 percent filled on any given day.

Community hospitals employed more than 3.2 million full-time equivalent (FTE) workers in the second quarter of 1991, an increase of only 0.5 percent from the second quarter of 1990. This increase is the smallest in over 4 years, most likely because of decreasing utilization of hospital care. The number of beds has been decreasing since 1985 while FTEs have grown; therefore the number of FTEs per bed has been increasing. In the second quarter of 1991, an average of 3.6 FTEs were available per bed, the highest ever. This increase may be beneficial, considering the higher level of care patients require as length of inpatient stays has been cut to a minimum.

Table 1
Selected community hospital statistics: 1988-91

Item	Calendar year			1988	1989	1990	1990	1990	1991	1991
	1988	1989	1990	Q2	Q2	Q2	Q3	Q4	Q1	Q2
Operating expenses										
Total in millions	\$177,770	\$195,378	\$217,113	\$43,791	\$48,201	\$53,738	\$54,902	\$56,001	\$57,189	\$58,930
Labor in millions	96,415	106,019	117,828	23,622	26,057	29,050	29,941	30,517	30,971	31,692
Non-labor in millions	81,355	89,359	99,286	20,169	22,145	24,688	24,961	25,484	26,218	27,238
Inpatient expense in millions	140,482	152,147	165,792	34,544	37,444	40,969	41,646	42,457	43,406	43,979
Amount per patient day	632	690	765	629	685	760	786	805	795	835
Amount per admission	4,194	4,586	5,021	4,139	4,537	4,936	5,097	5,287	5,260	5,375
Utilization										
Admissions in thousands	33,496	33,176	33,017	8,346	8,253	8,300	8,171	8,031	8,253	8,182
Inpatient days in thousands	222,313	220,361	216,836	54,947	54,684	53,931	53,012	52,761	54,578	52,681
Adult length of stay in days	6.6	6.6	6.6	6.6	6.6	6.5	6.5	6.6	6.6	6.4
Surgical operations in thousands	21,252	21,383	21,904	5,415	5,467	5,581	5,496	5,378	5,379	5,572
Outpatient visits in thousands	296,111	308,086	326,498	74,963	78,368	82,609	83,417	81,135	82,471	86,331
Beds in thousands	942	930	921	946	932	924	920	915	915	913
Adult occupancy rate ¹	64.5	64.9	64.5	63.9	64.5	64.1	62.6	62.7	66.3	63.4
Full-time equivalent (FTE) personnel										
Total in thousands	3,112	3,162	3,229	3,105	3,150	3,226	3,241	3,235	3,242	3,244
Number per bed	3.3	3.4	3.5	3.3	3.4	3.5	3.5	3.5	3.5	3.6
Adjusted patient days ² per FTE	90	89	88	22	22	22	22	22	22	22
Adjusted patient days in thousands	281,322	282,974	283,959	69,656	70,393	70,741	69,886	69,593	71,908	70,590

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

²Adjusted 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. 1988-June 1991.

Table 2
Percent change in selected community hospital statistics: 1988-91

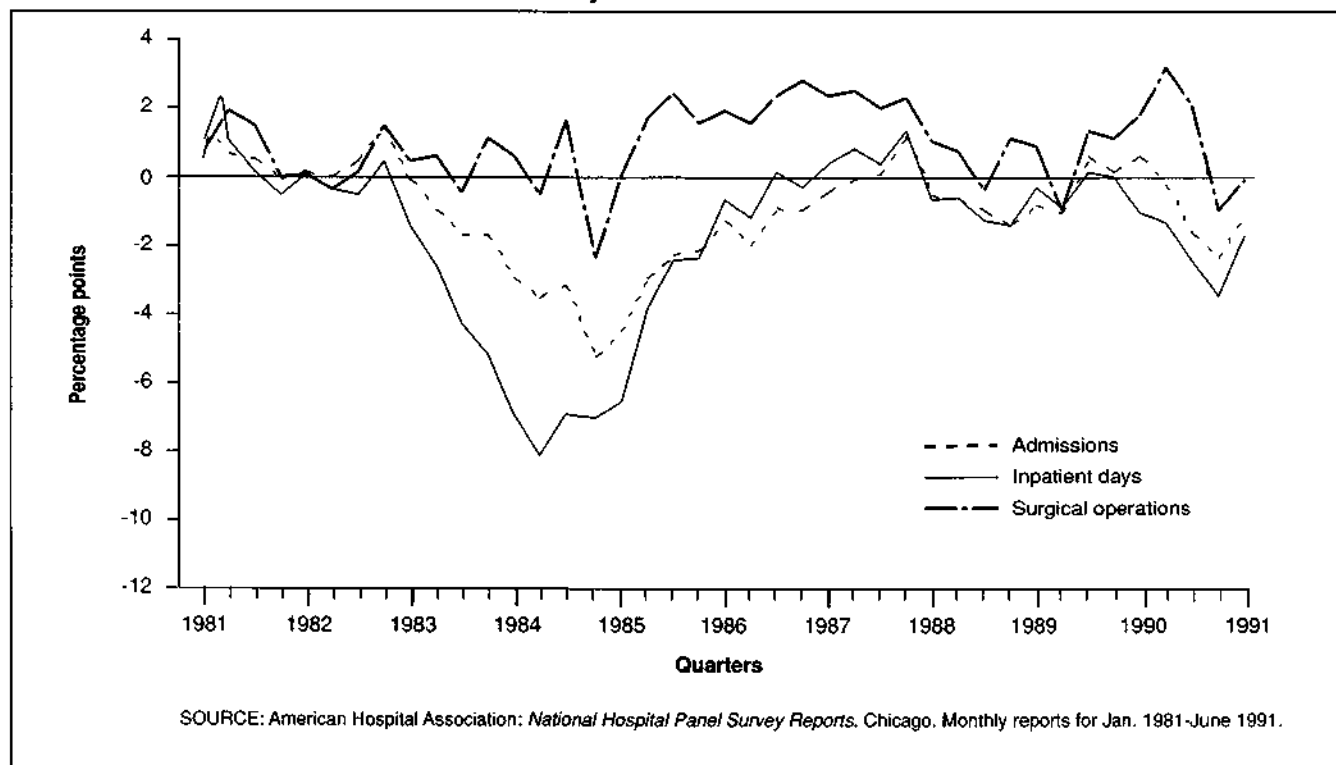
Item	Calendar year			1988 Q2	1989 Q2	1990 Q2	1990 Q3	1990 Q4	1991 Q1	1991 Q2
	1988	1989	1990							
Operating expenses	Annual percent change			Percent change from the same period of previous year						
Total	10.2	9.9	11.1	9.6	10.1	11.5	11.7	10.4	9.0	9.7
Labor	10.1	10.0	11.1	9.3	10.3	11.5	11.8	10.5	9.4	9.1
Non-labor	10.3	9.8	11.1	10.1	9.8	11.5	11.6	10.3	8.6	10.3
Inpatient expenses	8.2	8.3	9.0	7.7	8.4	9.4	9.5	7.8	6.6	7.3
Amount per patient day	8.8	9.3	10.7	8.8	8.9	10.9	11.5	11.4	11.6	9.9
Amount per admission	8.7	9.3	9.5	8.6	9.6	8.8	10.0	10.2	10.0	8.9
Utilization										
Admissions	-0.4	-1.0	-0.5	-0.8	-1.1	0.6	-0.4	-2.2	-3.1	-1.4
Inpatient days	-0.5	-0.9	-1.6	-1.0	-0.5	-1.4	-1.8	-3.2	-4.5	-2.3
Adult length of stay	-0.1	0.1	-1.1	-0.2	0.6	-1.9	-1.3	-1.0	-1.4	-0.9
Surgical operations	1.0	0.6	2.4	1.2	1.0	2.1	3.9	2.5	-1.3	-0.2
Outpatient visits	6.2	4.0	6.0	6.3	4.5	5.4	6.7	5.8	4.0	4.5
Beds	-1.3	-1.3	-0.9	-1.2	-1.5	-0.8	-0.8	-1.1	-1.2	-1.3
Adult occupancy rate ¹	0.3	0.5	-0.4	0.1	0.6	-0.4	-0.6	-1.4	-2.3	-0.7
Full-time equivalent (FTE) personnel										
Total	1.1	1.6	2.1	1.0	1.4	2.4	2.1	1.4	0.9	0.5
Number per bed	2.4	3.0	3.1	2.2	2.9	3.2	3.0	2.6	2.2	1.8
Adjusted patient days per FTE	0.2	-1.0	-1.7	-0.2	-0.4	-1.9	-1.9	-2.3	-3.3	-0.8
Adjusted patient days	1.3	0.6	0.3	0.8	1.1	0.5	0.2	-0.9	-2.4	-0.2

¹ 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. 1988-June 1991.

Figure 1
Percent change in admissions, inpatient days, and surgical operations from the same period of previous year: 1981-91



SOURCE: American Hospital Association: *National Hospital Panel Survey Reports*. Chicago. Monthly reports for Jan. 1981-June 1991.

Private health sector: Employment, hours, and earnings

The gap between employment growth in the health service sector and the rest of the economy reached a new high in the second quarter of 1991. The Bureau of Labor Statistics (BLS) reported that employment in private non-agricultural establishments fell 1.5 percent in the second quarter of 1991 compared with the same period

one year earlier. At the same time, employment in the health service sector continues to grow, unaffected by what is happening in the rest of the economy. Between the second quarters of 1990 and 1991, employment in private health service establishments increased by 383,200, or 4.9 percent (Tables 3 and 4). This difference in growth rates amounts to 6.4 percentage points, a gap that has been widening over the past 2 years (Figure 2).

Table 3
Employment, hours, and earnings in private¹ health service establishments, by selected type of establishment: 1988-91

Type of establishment and measure	Calendar year			1988 Q2	1989 Q2	1990 Q2	1990 Q3	1990 Q4	1991 Q1	1991 Q2
	1988	1989	1990							
Health services (SIC 80)										
Total employment in thousands	7,121.0	7,483.7	7,843.9	7,072.3	7,451.7	7,795.2	7,913.5	7,991.4	8,072.5	8,178.4
Non-supervisory workers:										
Employment in thousands	6,324.3	6,654.1	6,973.5	6,279.2	6,625.4	6,931.1	7,036.0	7,104.9	7,176.9	7,273.5
Average weekly hours	32.4	32.5	32.5	32.4	32.4	32.4	32.8	32.6	32.4	32.5
Average hourly earnings	\$9.21	\$9.82	\$10.41	\$9.11	\$9.70	\$10.31	\$10.47	\$10.61	\$10.74	\$10.91
Offices and clinics of medical doctors (SIC 801)										
Total employment in thousands	1,203.8	1,273.7	1,353.1	1,196.7	1,266.2	1,342.7	1,369.2	1,383.6	1,402.4	1,423.6
Non-supervisory workers:										
Employment in thousands	992.0	1,052.0	1,117.3	985.6	1,047.0	1,109.5	1,131.4	1,141.7	1,155.9	1,174.0
Average weekly hours	31.6	31.9	31.7	31.5	31.8	31.6	31.9	31.4	31.8	32.0
Average hourly earnings	\$9.07	\$9.78	\$10.59	\$8.98	\$9.63	\$10.47	\$10.68	\$10.91	\$11.05	\$11.13
Offices and clinics of dentists (SIC 802)										
Total employment in thousands	484.6	501.2	513.7	483.1	500.9	513.6	515.3	516.0	518.4	524.4
Non-supervisory workers:										
Employment in thousands	424.5	438.6	450.4	423.7	438.2	450.6	451.4	452.3	455.2	460.6
Average weekly hours	28.5	28.5	28.4	28.4	28.7	28.4	28.5	28.5	28.3	28.4
Average hourly earnings	\$8.82	\$9.41	\$10.14	\$8.75	\$9.33	\$10.09	\$10.23	\$10.33	\$10.46	\$10.57
Nursing and personal care facilities (SIC 805)										
Total employment in thousands	1,314.3	1,360.7	1,419.8	1,307.9	1,354.7	1,409.8	1,430.1	1,449.4	1,467.8	1,492.7
Non-supervisory workers:										
Employment in thousands	1,187.0	1,230.3	1,282.9	1,180.7	1,225.0	1,274.4	1,292.2	1,309.6	1,325.1	1,347.0
Average weekly hours	31.6	31.8	32.1	31.5	31.7	31.9	32.6	32.3	32.0	32.1
Average hourly earnings	\$6.33	\$6.80	\$7.24	\$6.24	\$6.72	\$7.20	\$7.29	\$7.39	\$7.46	\$7.52
Private hospitals (SIC 806)										
Total employment in thousands	3,295.0	3,440.2	3,547.0	3,273.1	3,429.6	3,530.3	3,569.9	3,588.5	3,607.1	3,629.9
Non-supervisory workers:										
Employment in thousands	3,010.8	3,146.9	3,247.0	2,990.0	3,136.3	3,230.2	3,269.2	3,287.1	3,306.1	3,329.7
Average weekly hours	34.0	34.0	34.2	33.9	33.9	34.2	34.4	34.1	34.0	34.2
Average hourly earnings	\$10.51	\$11.21	\$11.79	\$10.40	\$11.06	\$11.67	\$11.86	\$12.01	\$12.16	\$12.43
All private non-agricultural establishments										
Total employment in thousands	88,150	90,550	91,649	87,951	90,559	91,906	92,562	91,940	89,408	90,537
Non-supervisory workers:										
Employment in thousands	71,383	73,400	74,254	71,222	73,412	74,494	75,078	74,525	72,097	73,222
Average weekly hours	34.7	34.6	34.5	34.7	34.6	34.5	34.8	34.4	33.9	34.3
Average hourly earnings	\$9.28	\$9.65	\$10.01	\$9.22	\$9.59	\$9.96	\$10.04	\$10.16	\$10.23	\$10.31
Employment in thousands										
All hospitals	4,601.0	4,741.9	4,863.9	4,581.2	4,728.2	4,842.0	4,892.6	4,917.8	4,943.0	4,974.9
Private hospitals (SIC 806)	3,295.0	3,440.2	3,547.0	3,273.1	3,429.6	3,530.3	3,569.9	3,588.5	3,607.1	3,629.9
Federal hospitals	240.7	227.4	233.3	243.7	225.1	233.3	234.2	233.7	235.9	239.1
State hospitals	446.2	442.4	430.5	446.0	444.6	430.1	430.3	431.6	430.2	429.5
Local hospitals	619.0	632.0	653.1	618.3	628.8	648.3	658.2	664.1	669.8	676.5

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

NOTES: Data presented here incorporate conversion to the 1987 Standard Industrial Classification (SIC) and a historical reconstruction of components back to the inception of the series, whenever possible. 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. 1988-June 1991.

During the first half of 1991, employment in the health sector experienced growth similar to that of 1990. If this rate of growth continues throughout 1991, annual growth in employment in health service establishments will be about 5 percent. In most service-specific health care establishments, employment growth in the first two quarters of 1991 is similar to that of calendar year 1990. Employment in offices and clinics of dentists seems to be the only exception to this trend, with growth

slightly lower in the first two quarters of 1991 than in 1990. Dental services are less extensively covered by insurance than are physician and hospital care; therefore consumers may postpone non-covered types of health care during uncertain economic conditions.

The impact of the health care industry on the entire economy can be gauged by computing growth in private sector employment devoid of health sector jobs. If health sector employment is subtracted, employment in the

Table 4
Percent change in employment, hours, and earnings in private¹ health service establishments, by selected type of establishment: 1988-91

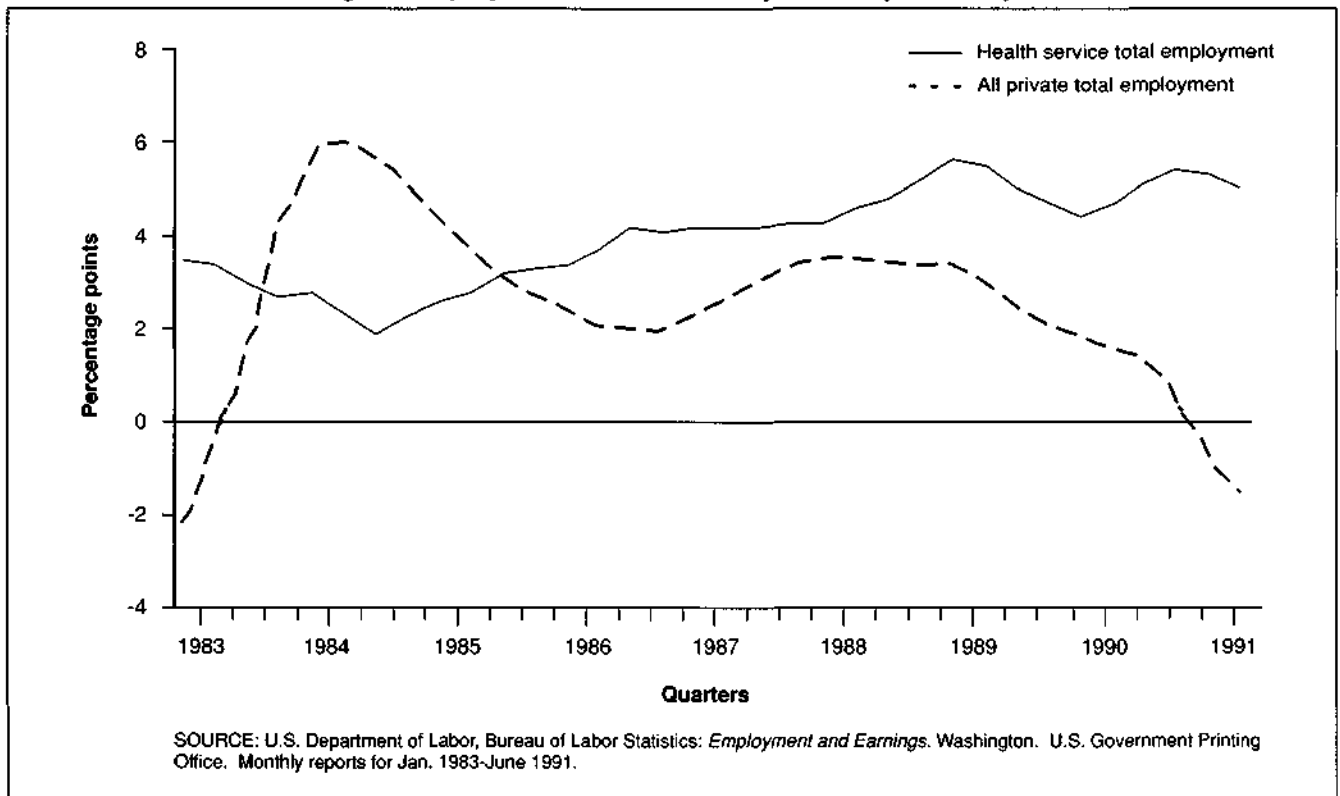
Type of establishment and measure	Calendar year			1988 Q2	1989 Q2	1990 Q2	1990 Q3	1990 Q4	1991 Q1	1991 Q2
	1988	1989	1990							
Health services (SIC 80)	Annual percent change			Percent change from the same period of previous year						
Total employment	4.6	5.1	4.8	4.5	5.4	4.6	5.0	5.3	5.2	4.9
Non-supervisory workers:										
Employment	4.5	5.2	4.8	4.3	5.5	4.6	5.0	5.3	5.2	4.9
Average weekly hours	0.2	0.1	0.3	0.3	-0.0	0.2	0.5	0.2	-0.1	0.2
Average hourly earnings	5.9	6.7	5.9	5.8	6.4	6.4	5.7	5.3	4.9	5.8
Offices and clinics of medical doctors (SIC 801)										
Total employment	5.4	5.8	6.2	5.5	5.8	6.0	6.7	6.7	6.5	6.0
Non-supervisory workers:										
Employment	4.9	6.0	6.2	4.8	6.2	6.0	6.7	6.7	6.4	5.8
Average weekly hours	1.5	1.0	-0.7	1.6	1.1	-0.8	-0.1	-1.9	-0.2	1.4
Average hourly earnings	5.3	7.9	8.3	5.5	7.2	8.7	8.4	8.0	7.1	6.3
Offices and clinics of dentists (SIC 802)										
Total employment	3.0	3.4	2.5	2.9	3.7	2.5	2.2	1.8	1.6	2.1
Non-supervisory workers:										
Employment	2.4	3.3	2.7	2.5	3.4	2.8	2.3	2.0	1.8	2.2
Average weekly hours	0.6	-0.1	-0.2	0.8	1.1	-1.0	0.6	0.1	0.0	0.0
Average hourly earnings	3.9	6.6	7.7	3.4	6.6	8.2	8.5	7.3	5.8	4.8
Nursing and personal care facilities (SIC 805)										
Total employment	2.3	3.5	4.3	2.0	3.6	4.1	4.4	5.2	5.6	5.9
Non-supervisory workers:										
Employment	2.2	3.6	4.3	2.0	3.8	4.0	4.2	5.2	5.6	5.7
Average weekly hours	0.0	0.9	0.9	0.4	0.6	0.6	1.3	1.0	0.8	0.5
Average hourly earnings	5.4	7.4	6.6	4.8	7.7	7.1	6.4	6.0	5.3	4.5
Private hospitals (SIC 806)										
Total employment	4.8	4.4	3.1	4.8	4.8	2.9	3.1	3.4	3.1	2.8
Non-supervisory workers:										
Employment	5.0	4.5	3.2	5.0	4.9	3.0	3.2	3.5	3.3	3.1
Average weekly hours	-0.5	0.0	0.7	-0.6	0.0	0.9	0.7	0.3	-0.6	0.1
Average hourly earnings	6.8	6.7	5.2	6.9	6.4	5.5	4.8	4.5	4.6	6.6
All private non-agricultural establishments										
Total employment	3.5	2.7	1.2	3.5	3.0	1.5	1.3	0.4	-0.9	-1.5
Non-supervisory workers:										
Employment	3.5	2.8	1.2	3.5	3.1	1.5	1.2	0.2	-1.1	-1.7
Average weekly hours	-0.2	-0.3	-0.3	-0.1	-0.4	-0.3	0.0	-0.4	-1.0	-0.6
Average hourly earnings	3.4	4.0	3.7	3.4	4.0	3.9	3.8	3.5	3.4	3.4
Employment										
All hospitals	3.7	3.1	2.6	3.8	3.2	2.4	2.7	3.0	2.9	2.7
Private hospitals (SIC 806)	4.8	4.4	3.1	4.8	4.8	2.9	3.1	3.4	3.1	2.8
Federal hospitals	-3.5	-5.5	2.6	-2.5	-7.6	3.7	2.5	1.4	1.6	2.5
State hospitals	1.7	-0.9	-2.7	1.8	-0.3	-3.3	-2.4	-0.9	0.1	-0.1
Local hospitals	2.1	2.1	3.3	2.3	1.7	3.1	3.7	4.0	4.4	4.4

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

NOTES: Data presented here incorporate conversion to the 1987 Standard Industrial Classification (SIC) and a historical reconstruction of components back to the inception of the series whenever possible.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics: *Employment and Earnings*. Washington. U.S. Government Printing Office. Monthly reports for Jan. 1988-June 1991.

Figure 2
Percent change in employment from the same period of previous year: 1983-91



private sector would have decreased by 2.1 percent in the second quarter of 1991 (an additional 0.6 percentage point). Considering that the health sector employs only 9 out of every 100 workers, growth in this sector has a substantial impact on total private employment.

During the past decade, growth in health establishment employment has outpaced the rest of the private economy. In 1980, 7 percent of private sector jobs were in the health care sector. Since 1980, this share has increased to 9 percent, with no evidence of slowing in sight. The influence of the health care industry on the economy can also be seen in the rapidly growing share health costs have consumed of the gross national product (GNP). From 1980 to 1990, health care spending as a share of GNP has increased from 9.2 to 12.2 percent (Levit et al., 1991).

Within health services, the two institutional services employ the majority of health care workers, with 44 percent in private hospitals (SIC 806), and 18 percent in nursing and personal care facilities (SIC 805), for an institutional subtotal of 62 percent.¹ Offices and clinics of medical doctors (SIC 801) employ 17 percent of health service sector workers, and offices and clinics of dentists (SIC 802) employ an additional 6 percent. The remaining 15 percent of health service workers (not shown separately on Tables 3 through 5) includes those employed by offices and clinics of doctors of osteopathy (SIC 803), offices and clinics of other health practitioners (SIC 804), medical and dental laboratories (SIC 807),

home health care services (SIC 808), and miscellaneous health and allied services, not elsewhere classified (SIC 809).

During the second quarter of 1991, employees of private hospitals earned an average of \$12.43 per hour, the highest of all workers in health establishments (Table 3). Employees of the other institutional category, nursing and personal care facilities, earned the least of all health workers, \$7.52 per hour. In the two professional services, offices and clinics of medical doctors paid workers an average of \$11.13 per hour, and offices and clinics of dentists paid workers \$10.57 per hour.

In addition to receiving the highest pay per hour, employees of private hospitals also worked the most hours per week, an average of 34.2 hours in the second quarter of 1991. For the same period, these workers earned on average \$425 per week (\$12.43 multiplied by 34.2 hours). The shortest work-week was found in offices and clinics of dentists where workers averaged only 28.4 hours per week.

Implied non-supervisory work-hours and payroll growth, developed from the BLS establishment survey data, are composite measures of business activity. Implied work-hours are the product of the number of non-supervisory employees and average weekly hours. In the second quarter of 1991, work-hours in all private establishments decreased 2.3 percent from the same quarter in 1990 (Table 5). This is the largest decline since 1982, the last time the general economy experienced a recession. In sharp contrast, work-hours in health service establishments increased 5.2 percent during the same

¹These numbers were calculated using figures on Table 3.

Table 5
Percent change in implied non-supervisory payrolls and work hours in private¹ health service establishments, by selected type of establishment: 1988-91

Type of establishment	Calendar year			1988 Q2	1989 Q2	1990 Q2	1990 Q3	1990 Q4	1991 Q1	1991 Q2
	1988	1989	1990							
Private health service establishments (SIC 80)	Annual percent change			Percent change from the same period of previous year						
Payrolls	10.8	12.4	11.3	10.8	12.3	11.5	11.6	11.1	10.3	11.2
Work-hours	4.7	5.3	5.1	4.7	5.5	4.8	5.5	5.5	5.1	5.2
Offices and clinics of medical doctors (SIC 801)										
Payrolls	12.1	15.5	14.6	12.4	15.1	14.3	15.5	14.4	13.7	14.1
Work-hours	6.4	7.1	5.5	6.5	7.4	5.1	6.6	4.7	6.2	7.3
Offices and clinics of dentists (SIC 802)										
Payrolls	7.1	10.0	10.4	6.9	11.4	10.1	11.6	9.5	7.7	7.1
Work-hours	3.0	3.2	2.5	3.3	4.5	1.7	2.9	2.1	1.8	2.2
Nursing and personal care facilities (SIC 805)										
Payrolls	7.8	12.3	12.1	7.3	12.5	12.2	12.4	12.7	12.0	10.8
Work-hours	2.2	4.5	5.2	2.4	4.4	4.7	5.6	6.2	6.4	6.3
Private hospitals (SIC 806)										
Payrolls	11.6	11.6	9.3	11.6	11.6	9.6	8.8	8.5	7.4	10.0
Work-hours	4.5	4.6	3.9	4.4	4.9	3.9	3.9	3.8	2.7	3.2
All private non-agricultural establishments										
Payrolls	6.8	6.6	4.7	6.9	6.8	5.1	5.1	3.4	1.2	1.1
Work-hours	3.3	2.5	0.9	3.4	2.7	1.2	1.2	-0.2	-2.1	-2.3

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

NOTES: Data presented here incorporate conversion to the 1987 Standard Industrial Classification (SIC) and a historical reconstruction of components back to the inception of the series, whenever possible. Q designates quarter of year. Quarterly data 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. 1988-June 1991.

period. Work-hours in offices and clinics of medical doctors grew the most quickly of any establishment type within the health sector, up 7.3 percent, with work-hours in nursing and personal care facilities close behind, up 6.3 percent.

Implied non-supervisory payroll (calculated by multiplying implied work-hours by average hourly earnings) for health service establishments has not shown the slowdown seen in other industries. In the second quarter of 1991, payroll in health service establishments increased 11.2 percent from the second quarter of 1990. For the same period, payroll in all private establishments increased only 1.1 percent. For this aggregate measure of all private establishments, most of the sluggish growth is because of declines in employees. Those who still have their jobs are still experiencing increasing hourly earnings. Within the health sector, payrolls in offices and clinics of medical doctors increased the most, up 14.1 percent, and payrolls in nursing and personal care facilities increased 10.8 percent (Table 5).

Prices

Consumer prices

Prices paid by consumers of medical care, as measured by the Consumer Price Index (CPI) for all urban consumers, rose 9.0 percent in the second quarter of 1991

when compared with the same period of the previous year. This continued the trend of medical care prices rising at almost twice the rate of prices for all items less medical care (Tables 6 and 7).

All item purchases increased in price by 4.8 percent during the second quarter of 1991. In 1990, prices experienced higher growth than in the previous 2 years, due in part to the Persian Gulf War and the resulting effect on energy prices in the last two quarters. If energy prices remain stable during 1991, then the CPI for all items should grow at a rate lower than the growth rate in 1990.

Growth in prices for medical care decelerated from the first quarter to the second quarter of 1991. This was the first slowdown in quarterly growth since the fourth quarter of 1987. This movement was consistent among all the medical care components, with the exception of dental services and non-prescription medical equipment and supplies.

Medical care is comprised of two components, medical care services and medical care commodities. Prices for medical care services increased 9.2 percent in the second quarter when compared with the same quarter one year earlier—down from the 9.8-percent growth exhibited during the first quarter. Medical care services are further broken down into professional services, hospital and related services, and net cost of private health insurance. (Net cost of private health insurance, the difference between earned premiums and incurred

Table 6
Selected items of the Consumer Price Index for all urban consumers: 1988-91

Item	Calendar year			1988 Q2	1989 Q2	1990 Q2	1990 Q3	1990 Q4	1991 Q1	1991 Q2
	1988	1989	1990							
All items	118.3	124.0	130.7	117.5	123.7	129.3	131.6	133.7	134.8	135.6
All items less medical care	117.0	122.4	128.8	116.3	122.2	127.5	129.6	131.7	132.6	133.3
Apparel and upkeep	115.4	118.6	124.1	116.0	119.7	125.2	123.3	127.1	126.3	128.8
Energy	89.2	94.3	102.1	89.0	97.1	97.3	103.8	110.8	103.2	101.7
Food and beverages	118.2	124.9	132.1	117.1	124.5	131.3	132.7	133.7	136.1	137.4
Housing: shelter	127.1	132.8	140.0	126.2	131.8	138.6	141.9	142.5	144.6	145.4
Medical care	138.6	149.2	162.8	137.5	147.6	160.8	164.8	168.2	172.4	175.3
Medical care services ¹	138.3	148.9	162.7	137.2	147.1	160.5	164.7	168.4	172.6	175.2
Professional services	137.5	146.4	156.1	136.6	145.4	155.0	157.7	159.5	162.3	164.5
Physicians' services	139.8	150.0	160.8	138.7	148.9	159.8	162.6	164.5	167.4	169.3
Dental services	137.5	146.0	155.8	136.6	145.2	154.4	157.1	159.3	162.7	165.5
Hospital and related services	143.9	160.5	178.0	141.5	157.5	174.5	180.3	185.8	190.9	193.2
Hospital room	143.3	158.1	175.4	141.1	154.8	172.2	177.6	182.1	187.3	189.5
Other inpatient services ²	114.0	128.9	142.7	111.7	126.7	139.4	144.7	150.0	153.7	155.4
Outpatient services ²	112.5	124.7	138.7	110.9	122.6	136.3	140.1	144.4	148.9	151.1
Medical care commodities	139.9	150.8	163.4	138.8	149.8	162.3	165.0	167.9	171.7	175.4
Prescription drugs	152.0	165.2	181.7	150.7	163.7	180.2	183.8	187.2	192.9	197.6
Non-prescription drugs and medical supplies ²	108.1	114.6	120.6	107.5	114.4	120.1	121.2	123.2	124.1	125.9
Internal and respiratory over-the-counter drugs	130.8	138.7	145.9	129.8	138.5	144.9	146.4	149.8	150.4	151.9
Non-prescription medical equipment and supplies	123.9	131.1	138.0	123.4	130.7	138.1	138.9	139.9	141.4	144.8

¹Includes net cost of private health insurance not shown in professional or hospital and related services.

²December 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. 1988-June 1991.

Table 7
Percent change in selected items of the Consumer Price Index for all urban consumers: 1988-91

Item	Calendar year			1988 Q2	1989 Q2	1990 Q2	1990 Q3	1990 Q4	1991 Q1	1991 Q2
	1988	1989	1990							
	Annual percent change			Percent change from the same period of previous year						
All items	4.1	4.8	5.4	3.9	5.2	4.6	5.5	6.2	5.3	4.8
All items less medical care	3.9	4.6	5.2	3.8	5.0	4.3	5.3	6.0	5.0	4.6
Apparel and upkeep	4.3	2.8	4.6	4.8	3.2	4.6	5.7	4.7	4.5	2.9
Energy	0.8	5.7	8.2	0.9	9.1	0.2	6.8	18.3	6.9	4.5
Food and beverages	4.1	5.7	5.8	3.4	6.3	5.4	5.6	5.5	4.1	4.7
Housing: shelter	4.8	4.5	5.4	4.7	4.4	5.2	6.0	5.4	5.6	4.9
Medical care	6.5	7.7	9.1	6.4	7.3	9.0	9.3	9.5	9.6	9.0
Medical care services ¹	6.5	7.6	9.3	6.3	7.2	9.1	9.6	9.8	9.8	9.2
Professional services	6.7	6.4	6.6	6.7	6.4	6.6	6.9	6.9	6.6	6.1
Physicians' services	7.2	7.3	7.2	7.1	7.3	7.3	7.4	7.4	7.0	5.9
Dental services	6.8	6.2	6.7	6.7	6.3	6.3	6.9	6.8	6.8	7.2
Hospital and related services	9.4	11.5	10.9	8.8	11.3	10.8	10.9	11.1	11.3	10.8
Hospital room	9.2	10.3	10.9	8.8	9.7	11.2	11.1	10.4	10.4	10.0
Other inpatient services	9.7	13.1	10.7	8.7	13.4	10.1	10.7	11.7	12.5	11.5
Outpatient services	8.9	10.9	11.2	8.8	10.5	11.2	10.6	11.2	11.1	10.8
Medical care commodities	6.9	7.8	8.4	6.9	7.9	8.3	8.3	8.2	8.4	8.1
Prescription drugs	7.9	8.7	10.0	7.9	8.7	10.0	9.9	9.7	9.9	9.7
Non-prescription drugs and medical supplies	4.9	6.0	5.2	4.8	6.4	5.0	5.1	5.2	5.2	4.8
Internal and respiratory over-the-counter drugs	5.5	6.1	5.2	5.6	6.7	4.6	5.0	5.7	5.5	4.8
Non-prescription medical equipment and supplies	3.6	5.8	5.3	3.5	5.9	5.7	5.2	4.3	4.6	4.8

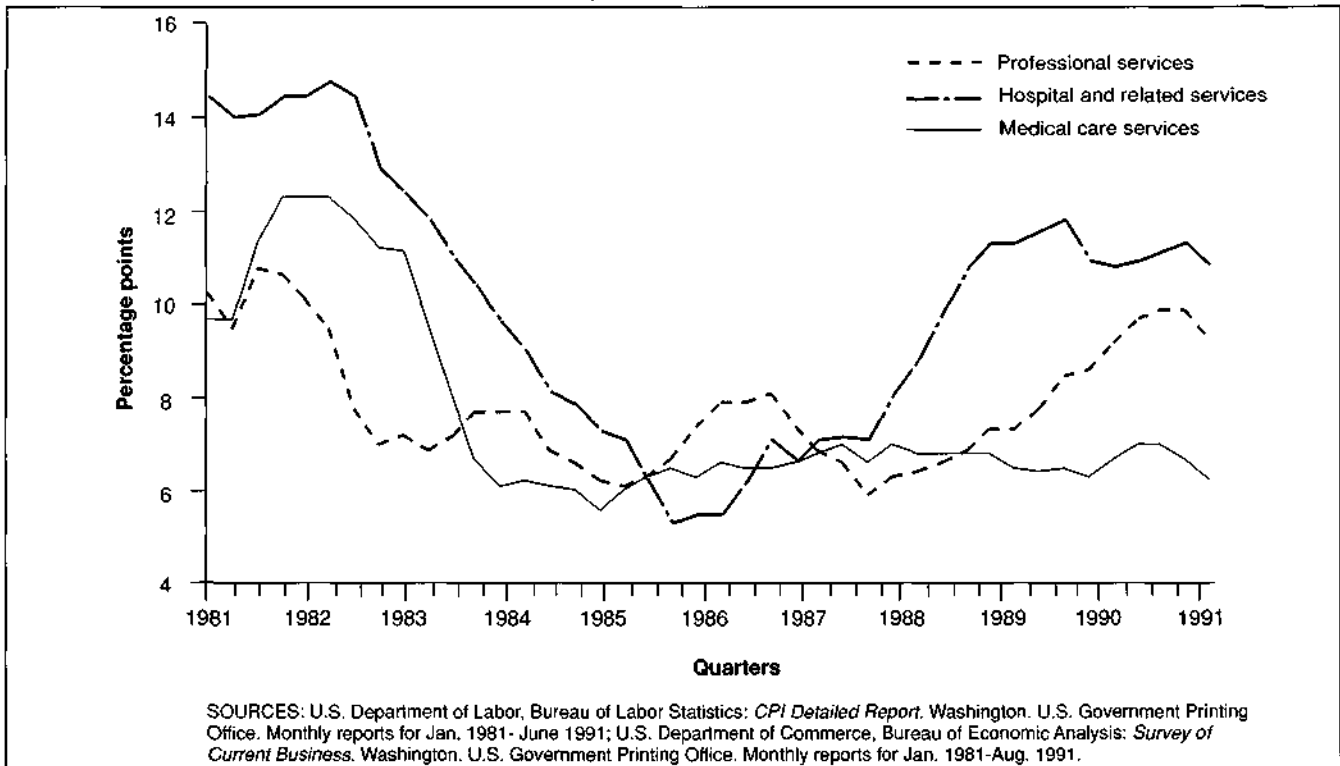
¹Includes net cost of private health insurance not shown in professional or hospital and related services.

NOTE: Q designates quarter of year.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics: *CPI Detailed Report*. Washington. U.S. Government Printing Office. Monthly reports for Jan. 1988-June 1991.

Figure 3

Percent change from selected items of the Consumer Price Index from the same period of previous year: 1981-91



benefits, is not shown separately on the tables.) Prices for professional services grew 6.1 percent from the second quarter of 1990 to the second quarter of 1991. This is the lowest quarterly price growth for professional services since the second quarter of 1985 (Figure 3).

Prices for physician services, a subset of professional services, grew 5.9 percent from the second quarter of 1990 to the second quarter of 1991. This 1.1-percentage-point drop in price growth between the first and second quarters is the largest decline of all the medical components. While price growth for physician services slowed during the first two quarters of 1991, employment and payroll in physicians' offices showed higher growth for the same period. In contrast to physician services, the CPI for dental services grew at 7.2 percent. At the same time, employment in dental offices exhibited slower growth than the rest of medical services. A possible explanation for this anomaly in dental offices is the recession. Demand for dental service is more discretionary in nature than other medical services. As demand slows because of the recession, dentists may have reduced employment and payroll while at the same time charging more for services to cover fixed costs.

Prices for hospital services, another subset of medical care services, grew 10.8 percent during the second quarter of 1991. This growth in prices was slower than in the three previous quarters, however it was still not as low as pre-prospective payment system (PPS) price growth.

The price growth of medical care commodities, another component of medical care, was 8.1 percent from the second quarter of 1990 to the second quarter of 1991. This growth was slightly lower when compared with the

first quarter's growth but continued to be within the stable 8.1-8.5 percent growth range exhibited over the last seven quarters. In one of the subsets of commodities, prescription drugs, price growth slowed slightly to 9.7 percent in the second quarter of 1991. The other subset, non-prescription drugs and medical supplies, exhibited price growth of 4.8 percent, also slightly slower than in the previous quarter.

Medical care commodities exhibited price growth that has been relatively constant since the fourth quarter of 1989. This pattern contrasts with that of medical care services which, for the second quarter of 1991, showed a more significant decrease after accelerating throughout 1990. If this trend of decelerating price growth for medical care services continues, then the prices for medical care services in 1991 will not grow as quickly as they had in 1990. Medical care commodities' prices were more stable in growth, and the growth in 1991 should be at approximately the same rate as in 1990.

Background on input price indexes

In 1979, the Health Care Financing Administration (HCFA) developed the hospital input price index, which was designed to measure the pure price changes associated with expenditure changes for hospital services. In the early 1980s, the skilled nursing facility (SNF) and home health agency (HHA) input price indexes, often referred to as "market baskets," were developed to price a consistent set of goods and services over time. They have played an important role in helping to set payment

Table 8

Percent change in four-quarter averages in the prospective payment system hospital input price index, by expense category: 1989-92

Expense category ¹	Base year weights 1987 ²	Four quarters ending							
		1989 Q1	1989 Q2	1989 Q3	1989 Q4	1990 Q1	1990 Q2	1990 Q3	1990 Q4
Total	100.000	5.4	5.6	5.6	5.4	5.1	4.8	4.8	4.9
Wages and salaries	52.212	4.8	4.8	4.9	4.9	4.9	5.0	5.0	5.0
Employee benefits	9.497	6.4	6.6	6.7	6.9	7.4	7.7	7.8	7.9
Other professional fees	1.649	4.7	4.6	4.5	4.6	4.6	4.7	4.8	4.8
Energy and utilities	2.376	-0.5	2.3	4.8	7.5	8.5	5.7	6.2	9.7
Fuel oil, coal, and other fuel	0.625	-4.2	0.9	6.2	13.6	17.3	11.3	13.9	22.2
Electricity	1.143	1.6	2.4	2.7	3.2	3.1	3.1	2.7	3.0
Natural gas	0.343	-0.6	2.0	5.6	6.0	4.9	2.1	-1.2	-2.0
Motor gasoline	0.229	-0.9	6.0	9.6	13.5	16.3	7.7	11.1	21.0
Water and sewerage maintenance	0.036	5.7	6.0	6.0	6.1	6.2	6.4	6.6	6.7
Professional liability insurance	1.433	22.5	17.0	9.7	0.6	-2.2	-1.6	-0.6	-0.1
All other	32.839	5.9	6.4	6.3	5.8	4.9	4.1	3.6	3.6
Other products	21.788	6.6	7.2	6.8	6.1	4.9	3.8	3.3	3.3
Pharmaceuticals	3.873	8.1	8.5	9.0	9.1	9.3	9.5	9.2	8.9
Food	3.299	5.0	5.4	5.0	4.5	3.9	3.8	4.1	3.9
Direct purchase	2.111	5.4	6.0	5.2	4.5	3.5	3.3	3.7	3.5
Contract service	1.188	4.3	4.4	4.5	4.6	4.6	4.7	4.7	4.7
Chemicals and cleaning products	3.126	13.9	14.5	11.7	7.5	2.2	-2.0	-3.1	-1.4
Surgical and medical instruments	2.672	2.3	3.4	3.9	4.1	3.9	3.3	3.0	2.6
Photographic supplies	2.623	3.9	5.9	7.7	8.8	8.0	6.6	5.1	3.7
Rubber and plastics	2.323	6.1	5.4	4.2	3.0	2.0	1.1	0.7	0.9
Paper products	1.399	9.8	9.5	8.2	6.5	4.6	2.7	1.7	1.2
Apparel	1.142	2.7	2.3	2.0	2.1	2.5	2.9	3.0	2.7
Minor machinery and equipment	0.497	2.9	3.2	3.5	3.7	3.6	3.4	3.1	2.8
Miscellaneous products	0.833	3.3	4.3	4.8	5.1	5.2	4.5	4.6	4.9
Other services	11.051	4.5	4.8	5.1	5.0	4.9	4.6	4.3	4.3
Business services	3.845	4.2	4.5	5.0	5.4	5.5	5.3	4.9	4.5
Computer and data processing	1.992	7.0	6.8	7.2	7.5	7.6	7.5	6.9	6.4
Transportation and shipping	1.233	3.3	4.3	4.7	5.0	5.1	3.8	4.1	5.6
Telephone	0.987	-0.3	0.0	0.8	1.0	1.2	1.1	0.4	0.4
Blood services	0.588	4.7	7.9	8.0	5.5	3.1	1.1	0.3	0.2
Postage	0.372	13.5	9.8	6.3	3.1	0.0	0.0	0.0	0.0
Other—labor intensive	1.233	3.8	4.0	3.9	3.7	3.6	3.7	3.9	4.0
Other—non-labor intensive	0.800	4.3	4.6	4.8	4.8	4.9	4.8	5.0	5.4

See footnotes at end of table.

percent increases and in understanding the contribution of input price increases to growing health expenditures.

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 PPS hospital input price index, the base period is 1987. 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 included in specific spending categories is calculated. These proportions are called cost or expenditure weights. There are 28 expenditure categories in the 1987-based PPS hospital input price index. Second, 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 Data Resources, Inc./McGraw-Hill (DRI). Each quarter, one month after the end of a calendar quarter (February, May, August, and November), DRI updates its macroeconomic forecasts of wages and prices based on updated historical information and revised forecast assumptions. 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*, 1990). The latest HHA regulatory input price index was published June 30, 1989 (*Federal Register*, 1989), and the latest SNF input price index was published April 1, 1991 (*Federal Register*, 1991).

Table 8—Continued

Percent change in four-quarter averages in the prospective payment system hospital input price index, by expense category: 1989-92

Expense category ¹	Base year weights 1987 ²	Four quarters ending							
		1991 Q1	1991 Q2	1991 Q3	1991 Q4	1992 Q1	1992 Q2	1992 Q3	1992 Q4
Total	100.000	4.8	4.6	4.4	4.0	4.0	4.2	4.4	4.7
Wages and salaries	52.212	4.9	4.8	4.7	4.6	4.8	5.0	5.1	5.2
Employee benefits	9.497	7.5	7.2	7.0	6.7	6.8	6.8	6.8	6.8
Other professional fees	1.649	4.7	4.6	4.6	4.7	5.0	5.3	5.4	5.4
Energy and utilities	2.376	9.1	10.1	6.9	-1.7	-3.5	-3.2	-1.0	4.0
Fuel oil, coal, and other fuel	0.625	18.9	19.7	9.9	-11.0	-14.2	-12.6	-7.6	4.6
Electricity	1.143	4.3	5.7	6.8	7.5	6.4	4.7	3.6	2.4
Natural gas	0.343	-2.5	-1.7	-0.9	-2.2	-2.7	-1.3	1.4	5.5
Motor gasoline	0.229	17.9	18.9	8.3	-11.1	-13.3	-10.9	-5.0	7.0
Water and sewerage maintenance	0.036	6.5	6.6	6.8	6.9	7.2	7.2	7.0	7.1
Professional liability insurance	1.433	-0.4	-2.0	-2.7	0.5	1.1	2.0	3.1	2.5
All other	32.839	3.6	3.6	3.3	2.7	2.5	2.6	2.9	3.4
Other products	21.788	3.4	3.3	3.0	2.2	1.9	2.0	2.3	2.9
Pharmaceuticals	3.873	8.4	8.1	7.9	7.9	8.2	7.9	7.9	7.6
Food	3.299	3.7	2.8	2.1	1.8	1.9	2.4	2.9	3.2
Direct purchase	2.111	3.2	2.1	1.2	0.9	1.1	2.0	2.7	3.1
Contract service	1.188	4.5	4.1	3.7	3.4	3.2	3.1	3.2	3.3
Chemicals and cleaning products	3.126	0.9	2.7	3.1	0.0	-1.8	-2.1	-1.8	0.6
Surgical and medical instruments	2.672	2.3	2.1	1.7	1.5	1.4	1.5	1.8	2.2
Photographic supplies	2.623	2.3	1.3	0.0	-0.8	-0.6	0.0	1.0	1.9
Rubber and plastics	2.323	1.3	1.7	2.2	1.9	1.4	1.3	1.3	1.7
Paper products	1.399	1.1	0.6	-0.4	-1.4	-2.3	-2.1	-0.9	0.5
Apparel	1.142	2.4	2.2	2.1	1.8	1.3	0.6	-0.2	-0.5
Minor machinery and equipment	0.497	2.6	2.5	2.6	2.7	2.7	2.8	2.6	2.6
Miscellaneous products	0.833	4.5	4.5	3.8	2.3	2.0	2.0	2.2	3.0
Other services	11.051	4.2	4.1	3.9	3.6	3.6	3.7	4.0	4.3
Business services	3.845	4.2	3.7	3.4	3.4	3.7	4.0	4.5	4.8
Computer and data processing	1.992	5.8	4.9	4.1	3.5	3.4	3.9	4.6	5.5
Transportation and shipping	1.233	5.8	6.5	5.6	2.6	1.6	1.6	2.2	3.9
Telephone	0.987	0.4	0.6	1.3	1.7	1.9	2.4	2.5	2.3
Blood services	0.588	0.3	0.4	0.9	1.8	2.8	3.0	2.5	2.0
Postage	0.372	2.7	6.7	10.8	14.8	13.1	8.8	4.9	1.2
Other—labor intensive	1.233	4.0	3.9	4.0	4.0	4.5	4.9	5.1	5.2
Other—non-labor intensive	0.800	5.4	5.5	5.0	4.2	3.6	3.3	3.3	3.5

¹For data sources used to estimate the input price relative weights and choice of price proxies, see the *Federal Register* (1990).

²Category weights may not sum to total because of rounding.

NOTES: Data for 1989 and 1990 are historical. Data for 1991 are partly historical and partly forecasted. Data for 1992 are forecasted. Q designates quarter of year. Percent change data shown are four-quarter moving averages. The following is an example of how a percent change is calculated: Use the quarterly index levels shown in Tables 9, 11, and 13. Choose the four-quarter ending for which you would like to calculate the percent change (e.g., year-end 1991: Quarter 3). Count back three quarters so that you have a total of four (e.g., 1991: Quarter 3; 1991: Quarter 2; 1991: Quarter 1; 1990: 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., 1990: Quarter 3; 1990: Quarter 2; 1990: Quarter 1; 1989: 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. Third quarter 1991 forecasts were made by Data Resources, Inc./McGraw-Hill.

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 included 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: 1989-92

Expense category ¹	Base year	1989	1989	1989	1989	1990	1990	1990	1990
	weights 1987 ²	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Total	100.000	109.9	111.3	112.6	113.5	115.2	116.4	118.0	119.5
Wages and salaries	52.212	106.9	109.9	111.6	112.8	114.4	115.5	117.2	118.5
Employee benefits	9.497	111.6	113.4	115.8	117.4	120.9	122.4	124.4	126.5
Other professional fees	1.649	108.8	109.6	111.4	112.3	114.1	114.9	116.7	117.8
Energy and utilities	2.376	101.4	111.1	110.2	106.7	110.3	110.8	119.8	130.1
Fuel oil, coal, and other fuel	0.625	103.4	123.1	113.9	115.9	124.0	120.7	138.9	174.2
Electricity	1.143	99.5	102.4	108.7	102.1	102.2	105.4	110.7	106.7
Natural gas	0.343	102.4	102.7	101.7	100.3	103.7	98.5	96.5	100.2
Motor gasoline	0.229	102.7	133.4	119.3	112.7	121.1	127.9	146.7	170.5
Water and sewerage maintenance	0.036	110.7	112.1	114.5	115.9	118.1	119.7	122.2	123.3
Professional liability insurance	1.433	130.7	126.2	129.4	130.3	130.8	132.0	131.4	122.0
All other	32.839	110.9	112.3	112.7	113.5	114.8	115.8	116.7	118.3
Other products	21.788	112.2	113.6	113.7	114.5	115.7	116.6	117.5	119.2
Pharmaceuticals	3.873	116.4	119.0	121.7	123.9	127.6	130.4	131.7	134.0
Food	3.299	108.5	109.3	110.1	110.9	112.4	114.2	114.9	114.6
Direct purchase	2.111	108.8	109.3	109.8	110.4	112.0	114.0	114.3	113.4
Contract service	1.188	106.0	109.2	110.6	111.7	113.0	114.7	115.8	116.7
Chemicals and cleaning products	3.126	125.2	125.0	121.0	119.6	118.7	118.3	119.9	126.9
Surgical and medical instruments	2.672	104.9	106.6	106.4	107.4	108.2	109.1	109.3	109.7
Photographic supplies	2.623	109.3	111.4	112.6	113.8	115.2	115.3	116.6	116.6
Rubber and plastics	2.323	110.0	110.7	110.5	110.4	110.9	111.1	111.0	112.6
Paper products	1.399	116.2	117.8	117.6	118.1	118.0	118.7	118.9	119.5
Apparel	1.142	104.0	104.6	105.7	106.6	107.5	107.8	108.4	108.8
Minor machinery and equipment	0.497	105.4	106.3	107.3	107.9	108.9	109.4	110.0	110.7
Miscellaneous products	0.833	106.6	108.7	108.6	109.9	112.1	112.3	113.9	116.9
Other services	11.051	108.2	109.8	110.6	111.5	113.0	114.3	115.2	116.6
Business services	3.845	107.9	109.1	110.3	111.3	113.1	114.6	115.1	115.6
Computer and data processing	1.992	114.3	116.7	118.8	120.5	122.2	124.7	126.2	127.4
Transportation and shipping	1.233	107.4	111.3	110.3	110.7	112.7	113.4	116.2	122.0
Telephone	0.987	99.7	100.6	100.8	100.1	100.9	101.1	100.2	100.9
Blood services	0.588	105.8	105.6	105.4	105.5	105.5	105.8	106.1	105.6
Postage	0.372	113.5	113.5	113.5	113.5	113.5	113.5	113.5	113.5
Other—labor intensive	1.233	106.5	107.1	108.1	109.6	110.5	111.6	112.4	114.0
Other—non-labor intensive	0.800	108.3	110.0	110.9	112.0	113.9	115.1	117.1	119.0

See footnotes at end of table.

Table 9—Continued
Quarterly index levels of the prospective payment system hospital input price index,
by expense category: 1989-92

Expense category ¹	Base year weights 1987 ²	1991 Q1	1991 Q2	1991 Q3	1991 Q4	1992 Q1	1992 Q2	1992 Q3	1992 Q4
Total	100.000	120.3	121.1	122.6	123.8	125.6	126.9	128.6	129.8
Wages and salaries	52.212	119.6	120.7	122.7	124.0	125.9	127.2	129.0	130.2
Employee benefits	9.497	129.0	130.6	132.9	134.9	138.0	139.6	141.9	143.7
Other professional fees	1.649	119.0	120.0	122.3	123.7	125.8	127.0	128.8	129.8
Energy and utilities	2.376	117.4	115.2	115.9	114.6	115.8	120.7	122.7	122.2
Fuel oil, coal, and other fuel	0.625	133.3	121.5	119.8	121.9	123.5	130.9	130.7	134.3
Electricity	1.143	110.4	114.3	117.7	114.3	114.4	116.4	120.2	116.8
Natural gas	0.343	102.9	97.8	94.6	94.7	100.3	102.6	103.6	105.1
Motor gasoline	0.229	128.7	126.3	125.3	123.3	122.6	138.8	138.8	138.3
Water and sewerage maintenance	0.036	125.4	128.2	131.3	132.0	134.4	137.2	140.2	141.5
Professional liability insurance	1.433	129.1	129.3	129.8	130.6	130.6	131.4	133.3	136.5
All other	32.839	118.8	119.2	119.6	120.5	122.0	123.1	124.1	125.3
Other products	21.788	119.5	119.6	119.9	120.6	121.9	122.9	123.9	125.0
Pharmaceuticals	3.873	137.3	141.3	141.7	144.9	149.2	151.5	152.5	155.0
Food	3.299	115.2	115.6	116.5	117.0	118.3	119.4	120.5	121.0
Direct purchase	2.111	113.9	114.0	114.8	115.2	116.6	117.8	118.8	119.0
Contract service	1.188	117.4	118.6	119.4	120.3	121.2	122.2	123.4	124.5
Chemicals and cleaning products	3.126	123.8	120.2	120.4	119.5	120.0	120.8	122.4	123.6
Surgical and medical instruments	2.672	110.3	110.8	110.8	111.0	112.0	112.9	113.4	114.2
Photographic supplies	2.623	115.1	114.8	114.6	115.4	116.0	116.8	117.6	118.0
Rubber and plastics	2.323	113.7	113.1	113.6	113.7	114.0	114.9	116.1	116.5
Paper products	1.399	119.4	117.2	115.7	116.2	116.3	116.8	118.1	119.7
Apparel	1.142	109.7	110.1	110.7	109.9	109.5	109.4	109.6	109.9
Minor machinery and equipment	0.497	111.7	111.9	113.4	113.8	114.5	115.2	115.9	116.7
Miscellaneous products	0.833	116.0	116.0	116.5	117.4	118.5	119.4	120.2	121.5
Other services	11.051	117.5	118.5	119.2	120.4	122.2	123.4	124.6	126.0
Business services	3.845	117.1	118.2	118.6	120.1	122.5	123.4	124.5	126.3
Computer and data processing	1.992	127.7	128.8	129.9	131.4	133.2	135.5	137.5	140.0
Transportation and shipping	1.233	119.3	118.6	118.6	120.0	121.2	123.7	124.2	125.8
Telephone	0.987	102.1	102.2	102.3	103.3	104.3	105.0	105.1	105.0
Blood services	0.588	105.5	106.7	108.9	109.3	109.7	108.4	109.7	111.2
Postage	0.372	125.7	131.9	131.9	131.9	131.9	131.9	131.9	131.9
Other—labor intensive	1.233	114.5	116.0	117.3	118.6	120.9	122.3	123.6	124.1
Other—non-labor intensive	0.800	119.9	120.7	121.5	122.4	123.4	124.9	126.1	127.2

¹For data sources used to estimate the input price index relative weights and choice of price proxies, see the *Federal Register* (1990).

²Category weights may not sum to total because of rounding.

NOTES: Data for 1989 and 1990 are historical. Data for 1991 are partly historical and partly forecasted. Data for 1992 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. Third-quarter forecasts were made by Data Resources, Inc./McGraw-Hill.

Table 10
Percent change in four-quarter averages in the skilled nursing facility input price index,
by expense category: 1989-92

Expense category ¹	Base year weights 1977 ²	Four quarters ending							
		1989 Q1	1989 Q2	1989 Q3	1989 Q4	1990 Q1	1990 Q2	1990 Q3	1990 Q4
Total	100.00	5.7	6.2	6.4	6.5	6.4	6.3	6.3	6.3
Wages and salaries	63.02	6.3	7.0	7.3	7.4	7.1	7.0	6.8	6.6
Employee benefits	7.60	5.3	5.1	4.5	4.0	4.0	4.2	4.5	5.0
Food	9.74	5.1	5.8	5.5	5.2	4.8	4.5	4.7	4.5
Direct purchase	4.93	5.4	6.0	5.2	4.5	3.5	3.3	3.7	3.5
Contract service	4.81	4.9	5.7	5.8	5.8	6.0	5.6	5.5	5.3
Fuel and other energy	4.27	1.2	1.5	2.3	3.9	5.8	6.0	6.9	9.2
Electricity	1.21	1.6	2.1	2.8	2.8	3.1	2.9	2.5	2.3
Natural gas	0.91	1.2	2.4	3.0	2.8	2.1	1.2	0.5	0.2
Fuel oil and coal	1.66	-0.8	-1.0	0.3	4.7	10.2	11.5	14.8	21.2
Water and sewerage maintenance	0.49	5.7	6.0	6.0	6.1	6.2	6.4	6.6	6.7
All other	15.37	5.1	5.4	5.5	5.6	5.6	5.6	5.7	6.0
Drugs	1.50	8.1	8.5	9.0	9.1	9.3	9.5	9.2	8.9
Supplies	3.28	4.3	4.6	4.7	4.8	4.9	4.7	5.0	5.4
Health services	1.21	7.4	7.4	7.4	7.3	7.1	7.1	7.1	7.2
Other business services	4.59	4.7	4.8	4.9	4.9	5.0	5.1	5.1	5.3
Miscellaneous	4.79	4.3	4.6	4.7	4.8	4.9	4.7	5.0	5.4

Expense category ¹	Base year weights 1977 ²	Four quarters ending							
		1991 Q1	1991 Q2	1991 Q3	1991 Q4	1992 Q1	1992 Q2	1992 Q3	1992 Q4
Total	100.00	5.9	5.5	5.2	4.7	4.6	5.0	5.2	5.7
Wages and salaries	63.02	6.2	5.6	5.4	5.1	5.2	5.7	6.0	6.5
Employee benefits	7.60	5.3	5.6	6.0	6.1	6.2	6.2	6.0	5.7
Food	9.74	3.8	3.0	2.4	2.1	2.2	2.7	3.0	3.3
Direct purchase	4.93	3.2	2.1	1.2	1.0	1.1	2.0	2.7	3.1
Contract service	4.81	4.3	3.8	3.4	3.0	3.2	3.2	3.3	3.4
Fuel and other energy	4.27	7.7	7.6	5.9	0.0	-1.8	-1.7	-0.7	2.7
Electricity	1.21	2.5	2.6	3.5	3.8	3.0	2.5	1.8	1.5
Natural gas	0.91	0.1	0.6	1.3	1.0	0.1	0.8	1.5	2.8
Fuel oil and coal	1.66	16.6	15.8	10.1	-5.4	-8.8	-8.7	-6.1	1.9
Water and sewerage maintenance	0.49	6.5	6.6	6.8	6.9	7.2	7.2	7.0	7.1
All other	15.37	5.9	5.9	5.6	5.0	4.7	4.5	4.5	4.5
Drugs	1.50	8.4	8.1	7.9	7.9	8.2	7.9	7.9	7.6
Supplies	3.28	5.4	5.5	5.0	4.2	3.6	3.3	3.3	3.5
Health services	1.21	7.3	6.9	6.6	6.3	6.2	6.4	6.7	6.8
Other business services	4.59	5.3	5.3	5.1	4.8	4.5	4.3	4.1	4.1
Miscellaneous	4.79	5.4	5.5	5.0	4.2	3.6	3.3	3.3	3.5

¹For data sources used to estimate the input price index relative weights and choice of price proxies, see the *Federal Register* (1991).

²Category weights may not sum to total because of rounding.

NOTES: Data for 1989 and 1990 are historical. Data for 1991 are partly historical and partly forecasted. Data for 1992 are forecasted. Q designates quarter of year. Percent change data shown are four-quarter moving averages. The following is an example of how a percent change is calculated: 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 1991: Quarter 3). Count back three quarters so that you have a total of four (e.g., 1991: Quarter 3; 1991: Quarter 2; 1991: Quarter 1; 1990: 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., 1990: Quarter 3; 1990: Quarter 2; 1990: Quarter 1; 1989: 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. Third-quarter 1991 forecasts were made by Data Resources, Inc./McGraw-Hill.

Table 11
Quarterly index in the skilled nursing facility input price index,
by expense category: 1989-92

Expense category ¹	Base year weights	1989	1989	1989	1989	1990	1990	1990	1990
	1977 ²	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Total	100.00	203.4	205.7	208.8	212.2	216.4	218.8	221.5	225.5
Wages and salaries	63.02	203.4	205.7	209.5	213.3	217.0	220.4	223.0	226.2
Employee benefits	7.60	208.2	209.9	211.7	213.8	217.7	219.7	222.5	225.5
Food	9.74	172.1	173.9	174.8	177.0	180.6	182.1	182.7	183.6
Direct purchase	4.93	158.2	158.7	158.9	161.1	162.8	165.4	165.5	165.4
Contract service	4.81	186.3	189.5	191.1	193.3	198.8	199.2	200.4	202.3
Fuel and other energy	4.27	202.4	204.3	204.7	211.4	222.8	212.6	219.2	243.5
Electricity	1.21	198.5	201.3	200.7	203.7	205.0	206.9	203.5	207.6
Natural gas	0.91	227.3	222.8	221.7	227.5	231.5	220.9	219.5	229.2
Fuel oil and coal	1.66	183.0	187.5	188.2	199.3	224.0	201.2	219.8	273.5
Water and sewerage maintenance	0.49	231.1	234.0	239.0	241.9	246.5	249.9	255.1	257.5
All other	15.37	221.1	224.3	226.9	229.6	233.9	237.0	240.4	244.2
Drugs	1.50	271.5	277.7	283.8	289.1	297.6	304.3	307.2	312.5
Supplies	3.28	201.0	204.1	205.7	207.7	211.4	213.5	217.0	220.7
Health services	1.21	250.9	254.5	258.7	261.8	267.5	273.2	277.9	281.3
Other business services	4.59	231.9	234.4	237.1	240.0	243.8	246.7	249.6	253.3
Miscellaneous	4.79	201.0	204.1	205.7	207.7	211.4	213.5	217.0	220.7

Expense category ¹	Base year weights	1991	1991	1991	1991	1992	1992	1992	1992
	1977 ²	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Total	100.00	227.4	229.3	232.3	234.8	238.3	243.1	246.0	248.6
Wages and salaries	63.02	228.4	231.2	234.9	237.4	241.1	247.2	250.4	253.2
Employee benefits	7.60	230.3	233.2	236.7	239.5	244.5	247.4	249.8	252.0
Food	9.74	184.5	185.2	186.5	188.0	189.7	191.4	193.0	194.6
Direct purchase	4.93	165.5	165.4	166.5	168.0	169.5	170.9	172.3	173.6
Contract service	4.81	203.9	205.5	206.9	208.5	210.4	212.4	214.3	216.2
Fuel and other energy	4.27	232.7	220.7	220.5	223.8	227.0	229.2	231.4	234.1
Electricity	1.21	213.3	213.4	213.5	214.2	215.1	216.2	217.3	218.2
Natural gas	0.91	234.6	223.6	224.0	228.1	229.7	232.5	235.2	238.0
Fuel oil and coal	1.66	237.2	210.6	207.8	213.1	218.3	219.9	221.5	225.3
Water and sewerage maintenance	0.49	261.7	267.6	274.1	275.5	280.5	286.5	292.8	295.4
All other	15.37	247.3	249.9	251.8	254.7	258.1	261.0	263.6	266.5
Drugs	1.50	320.2	329.6	330.6	338.1	348.0	353.3	355.6	361.6
Supplies	3.28	222.7	223.8	225.3	227.2	229.4	231.6	233.8	236.0
Health services	1.21	286.2	289.4	294.4	298.6	304.9	309.8	314.6	318.7
Other business services	4.59	256.4	259.2	261.5	264.1	266.8	269.7	272.5	275.2
Miscellaneous	4.79	222.7	223.8	225.3	227.2	229.4	231.6	233.8	236.0

¹For data sources used to estimate the input price index relative weights and choice of price proxies, see the *Federal Register* (1991).

²Category weights may not sum to total because of rounding.

NOTES: Data for 1989 and 1990 are historical. Data for 1991 are partly historical and partly forecasted. Data for 1992 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. Third-quarter 1991 forecasts were made by Data Resources, Inc./McGraw-Hill.

Table 12
Percent change in four-quarter averages in the home health agency input price Index,
by expense category: 1989-92

Expense category ¹	Base year weights 1976 ²	Four quarters ending							
		1989 Q1	1989 Q2	1989 Q3	1989 Q4	1990 Q1	1990 Q2	1990 Q3	1990 Q4
Total	100.00	6.3	6.3	6.3	6.1	6.0	5.7	5.4	5.2
Wages and salaries	65.14	7.1	6.9	6.9	6.7	6.4	6.2	5.6	5.2
Employee benefits	7.90	5.3	5.1	4.5	4.0	4.0	4.2	4.5	5.0
Transportation	4.87	3.3	4.3	4.7	5.0	5.1	3.8	4.1	5.6
Office costs	2.79	4.7	4.8	4.9	4.9	5.0	5.1	5.1	5.3
Rent	1.35	3.8	3.8	3.8	3.9	4.0	4.1	4.2	4.2
Non-rental space occupancy	1.17	1.2	1.6	2.4	4.0	5.8	6.1	7.0	9.3
Medical and nursing supplies	2.81	4.3	4.9	5.4	5.8	5.9	5.9	5.7	5.3
Contract services	6.87	6.3	6.3	6.3	6.1	6.0	5.7	5.4	5.2
Miscellaneous	7.10	4.3	4.6	4.7	4.8	4.9	4.7	5.0	5.4

Expense category ¹	Base year weights 1976 ²	Four quarters ending							
		1991 Q1	1991 Q2	1991 Q3	1991 Q4	1992 Q1	1992 Q2	1992 Q3	1992 Q4
Total	100.00	5.0	5.3	5.5	5.6	5.6	5.2	4.9	4.9
Wages and salaries	65.14	4.8	5.1	5.6	6.0	6.3	5.7	5.3	5.1
Employee benefits	7.90	5.3	5.6	6.0	6.1	6.2	6.2	6.0	5.7
Transportation	4.87	5.8	6.5	5.6	2.6	1.6	1.6	2.2	3.9
Office costs	2.79	5.3	5.3	5.1	4.8	4.5	4.3	4.1	4.1
Rent	1.35	4.2	4.1	3.7	3.1	2.5	1.8	1.6	1.9
Non-rental space occupancy	1.17	7.8	7.7	6.0	-0.1	-1.8	-1.7	-0.6	2.8
Medical and nursing supplies	2.81	4.9	4.7	4.6	4.6	4.5	4.2	4.2	4.2
Contract services	6.87	5.0	5.2	5.5	5.6	5.7	5.2	4.9	4.9
Miscellaneous	7.10	5.4	5.5	5.0	4.2	3.6	3.3	3.3	3.5

¹For data sources used to estimate the input price index relative weights and choice of price proxies, see the *Federal Register* (1989).

²Category weights may not sum to total because of rounding.

NOTES: Data for 1989 and 1990 are historical. Data for 1991 are partly historical and partly forecasted. Data for 1992 are forecasted. Q designates quarter of year. Percent change data shown are four-quarter moving averages. The following is an example of how a percent change is calculated: 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 1991: Quarter 3). Count back three quarters so that you have a total of four (e.g., 1991: Quarter 3; 1991: Quarter 2; 1991: Quarter 1; 1990: 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., 1990: Quarter 3; 1990: Quarter 2; 1990: Quarter 1; 1989: 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. Third-quarter 1991 forecasts were made by Data Resources, Inc./McGraw-Hill.

Table 13

Quarterly index levels of the home health agency input price index, by expense category: 1989-92

Expense category ¹	Base year	1989	1989	1989	1989	1990	1990	1990	1990
	weights 1976 ²	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Total	100.00	242.8	245.3	249.9	253.4	256.8	258.0	262.2	266.4
Wages and salaries	65.14	252.4	254.4	260.3	264.3	267.4	268.3	272.7	276.3
Employee benefits	7.90	231.1	233.1	235.1	237.4	241.8	244.0	247.1	250.4
Transportation	4.87	202.5	209.7	207.8	208.6	212.5	213.7	219.1	229.9
Office costs	2.79	249.7	252.4	255.3	258.5	262.5	265.7	268.8	272.8
Rent	1.35	214.0	215.6	218.3	221.0	222.6	224.7	227.9	230.2
Non-rental space occupancy	1.17	227.8	229.9	230.5	238.2	251.2	239.4	247.1	275.0
Medical and nursing supplies	2.81	210.9	215.9	218.2	221.7	223.4	228.2	229.6	231.2
Contract services	6.87	242.9	245.4	249.9	253.5	256.8	258.0	262.2	266.4
Miscellaneous	7.10	214.1	217.3	219.0	221.1	225.1	227.3	231.1	235.0

Expense category ¹	Base year	1991	1991	1991	1991	1992	1992	1992	1992
	weights 1976 ²	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Total	100.00	269.2	273.9	277.6	280.7	283.1	285.9	291.0	295.4
Wages and salaries	65.14	279.7	285.9	290.5	293.8	295.8	298.4	304.7	310.0
Employee benefits	7.90	255.7	259.0	262.9	265.9	271.4	274.8	277.4	279.8
Transportation	4.87	224.8	223.4	223.5	226.1	228.4	233.2	234.1	237.1
Office costs	2.79	276.1	279.1	281.6	284.4	287.3	290.3	293.4	296.3
Rent	1.35	231.5	233.5	233.9	234.5	235.2	236.5	238.4	240.7
Non-rental space occupancy	1.17	262.4	248.7	248.6	252.3	256.0	258.5	261.2	264.2
Medical and nursing supplies	2.81	233.6	239.2	240.0	241.8	243.1	248.3	250.5	252.6
Contract services	6.87	269.2	273.9	277.7	280.8	283.1	286.0	291.0	295.5
Miscellaneous	7.10	237.1	238.3	239.8	241.9	244.3	246.6	248.9	251.3

¹For data sources used to estimate the input price index relative weights and choice of price proxies, see the *Federal Register* (1988).

²Category weights may not sum to total because of rounding.

NOTES: Data for 1989 and 1990 are historical. Data for 1991 are partly historical and partly forecasted. Data for 1992 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. Third-quarter 1991 forecasts were made by Data Resources, Inc./McGraw-Hill.

Table 14
Selected national economic indicators: 1988-91

Indicator	Calendar year			1988 Q2	1989 Q2	1990 Q2	1990 Q3	1990 Q4	1991 Q1	1991 Q2
	1988	1989	1990							
Gross national product										
Billions of dollars	\$4,874	\$5,201	\$5,465	\$4,831	\$5,174	\$5,443	\$5,515	\$5,527	\$5,558	\$5,616
Billions of 1982 dollars	\$4,017	\$4,118	\$4,157	\$4,006	\$4,112	\$4,155	\$4,170	\$4,153	\$4,124	\$4,123
Implicit price deflator (1982 = 100.0)	121.3	126.3	131.5	120.6	125.8	131.0	132.2	133.1	134.8	136.2
Employment, hours, and earnings										
Unemployment rate, all workers	5.5	5.3	5.5	5.5	5.3	5.3	5.6	5.9	6.5	6.8
Private non-agricultural workers:										
Total employment in thousands	88,150	90,550	91,649	87,951	90,559	91,906	92,562	91,940	89,408	90,537
Average weekly hours	34.7	34.6	34.5	34.7	34.6	34.5	34.8	34.4	33.9	34.3
Average hourly earnings	\$9.28	\$9.65	\$10.01	\$9.22	\$9.59	\$9.96	\$10.04	\$10.16	\$10.23	\$10.31
Health services workers:										
Total employment in thousands	7,121	7,484	7,844	7,072	7,452	7,795	7,914	7,991	8,072	8,178
Average weekly hours	32.4	32.5	32.5	32.4	32.4	32.4	32.8	32.6	32.4	32.5
Average hourly earnings	\$9.21	\$9.82	\$10.41	\$9.11	\$9.70	\$10.31	\$10.47	\$10.61	\$10.74	\$10.91
Personal income and savings										
Income in billions	\$4,071	\$4,384	\$4,645	\$4,033	\$4,363	\$4,622	\$4,679	\$4,719	\$4,736	\$4,786
Disposable income in billions	\$3,479	\$3,725	\$3,946	\$3,439	\$3,697	\$3,926	\$3,969	\$4,002	\$4,021	\$4,070
Savings in billions	\$146	\$172	\$180	\$141	\$169	\$195	\$167	\$168	\$169	\$170
Personal saving rate	4.2	4.6	4.6	4.1	4.6	5.0	4.2	4.2	4.2	4.2
Prices¹										
Gross national product fixed-weight price index (1982 = 100.0)										
	123.8	129.4	135.3	123.0	129.0	134.6	136.0	137.5	139.3	140.3
Consumer Price Index, all items										
	118.3	124.0	130.7	117.5	123.7	129.3	131.6	133.7	134.8	135.6
All items less medical care										
	117.0	122.4	128.8	116.3	122.2	127.5	129.6	131.7	132.6	133.3
Apparel and upkeep										
	115.4	118.6	124.1	116.0	119.7	125.2	123.3	127.1	126.3	128.8
Energy										
	89.2	94.3	102.1	89.0	97.1	97.3	103.8	110.8	103.2	101.7
Food and beverages										
	118.2	124.9	132.1	117.1	124.5	131.3	132.7	133.7	136.1	137.4
Housing: shelter										
	127.1	132.8	140.0	126.2	131.8	138.6	141.9	142.5	144.6	145.4
Medical care										
	138.6	149.2	162.8	137.5	147.6	160.8	164.8	168.2	172.4	175.3
Producer price index, ² finished consumer goods										
	106.2	112.1	118.2	105.6	112.7	116.3	118.4	122.0	120.4	120.4

¹Base period = 1982-84, unless noted.

²Formerly called the "Wholesale Price Index."

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

SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis: *Survey of Current Business*. Washington, U.S. Government Printing Office. Monthly reports for Jan. 1988-Aug. 1991; U.S. Department of Labor, Bureau of Labor Statistics: *Employment and Earnings*. Washington, U.S. Government Printing Office. Monthly reports for Jan. 1988-June 1991.

National economic indicators

To put health-related economic issues into perspective, this section shifts focus to discuss national indicators of output, employment, and inflation. In 1990, health care expenditures consumed 12.2 percent of gross national product (GNP), a 0.6-percentage-point increase from 1989. This increase, the second largest since 1960, is a combination of the continued high growth of health care costs and the slowdown in the general economy. Price growth and employment figures from the second quarter of 1991 indicate that, while the health care sector grew at a slower rate than exhibited in the past, it is still outpacing growth in the overall economy. The economy has not begun to recover from the recession that began in the fourth quarter of 1990, and health expenditures are still growing at a fast pace. Indicators from the first two quarters of 1991 suggest that calendar year 1991 will show an increased share of GNP for health.

Output and income

GNP, the most widely used measure of the Nation's output, increased 3.2 percent from the second quarter of 1990 to the second quarter of 1991. The growth of "real" GNP (also called "constant dollar" or "price deflated" GNP) was -0.8 percent in the second quarter of 1991 when compared with the same quarter a year ago. In absolute terms, real GNP remained approximately the same, going from \$4,124 billion in the first quarter of 1991 to \$4,123 billion in the second quarter of 1991 (Tables 14 and 15).

Personal income rose from \$4.7 trillion in the first quarter of 1990 to \$4.8 trillion in the second quarter of 1991, a growth of 3.6 percent. Disposable personal income (personal income net of taxes) rose 3.7 percent during the same period, reaching \$4.1 trillion. The portion of disposable income that was saved rather than spent (personal saving rate) was 4.2 percent.

Table 15
Percent change in selected national economic indicators: 1988-91

Indicator	Calendar year			1988 Q2	1989 Q2	1990 Q2	1990 Q3	1990 Q4	1991 Q1	1991 Q2
	1988	1989	1990							
Gross national product	Annual percent change			Percent change from the same period of previous year						
Billions of dollars	7.9	6.7	5.1	8.0	7.1	5.2	5.3	4.5	3.4	3.2
Billions of 1982 dollars	4.5	2.5	1.0	4.9	2.7	1.0	1.0	0.5	-0.6	-0.8
Implicit price deflator (1982 = 100.0)	3.5	4.2	4.1	3.2	4.4	4.2	4.3	4.0	4.0	3.9
Employment, hours, and earnings										
Unemployment rate, all workers ¹	-0.7	-0.2	0.3	-0.8	-0.2	0.1	0.3	0.6	1.2	1.5
Private non-agricultural workers:										
Total employment	3.5	2.7	1.2	3.5	3.0	1.5	1.3	0.4	-0.9	-1.5
Average weekly hours	-0.2	-0.3	-0.3	-0.1	-0.4	-0.3	0.0	-0.4	-1.0	-0.6
Average hourly earnings	3.4	4.0	3.7	3.4	4.0	3.9	3.8	3.5	3.4	3.4
Health services workers:										
Total employment	4.6	5.1	4.8	4.5	5.4	4.6	5.0	5.3	5.2	4.9
Average weekly hours	0.2	0.1	0.3	0.3	-0.0	0.2	0.5	0.2	-0.1	0.2
Average hourly earnings	5.9	6.7	5.9	5.8	6.4	6.4	5.7	5.3	4.9	5.8
Personal income and savings										
Income	8.1	7.7	6.0	8.4	8.2	5.9	6.3	5.6	3.8	3.6
Disposable income	8.9	7.1	5.9	10.0	7.5	6.2	6.0	5.3	3.4	3.7
Savings	57.5	18.0	4.8	207.2	20.0	15.5	7.8	-3.8	-11.8	-12.8
Personal saving rate ¹	1.3	0.4	-0.0	2.6	0.5	0.4	0.1	-0.4	-0.7	-0.8
Prices²										
Gross national product fixed-weight price index (1982 = 100.0)	4.1	4.5	4.6	3.9	4.9	4.3	4.6	4.8	4.5	4.2
Consumer Price Index, all items	4.1	4.8	5.4	3.9	5.2	4.6	5.5	6.2	5.3	4.8
All items less medical care	3.9	4.6	5.2	3.8	5.0	4.3	5.3	6.0	5.0	4.6
Apparel and upkeep	4.3	2.8	4.6	4.8	3.2	4.6	5.7	4.7	4.5	2.9
Energy	0.8	5.7	8.2	0.9	9.1	0.2	6.8	18.3	6.9	4.5
Food and beverages	4.1	5.7	5.8	3.4	6.3	5.4	5.6	5.5	4.1	4.7
Housing: shelter	4.8	4.5	5.4	4.7	4.4	5.2	6.0	5.4	5.6	4.9
Medical care	6.5	7.7	9.1	6.4	7.3	9.0	9.3	9.5	9.6	9.0
Producer price index, ³ finished consumer goods	2.5	5.6	5.5	1.9	6.7	3.2	5.4	7.5	3.5	3.5

¹Change in rate, rather than percent change.

²Base period = 1982-84, unless noted.

³Formerly called the "Wholesale Price Index."

NOTE: Q designates quarter of year.

SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis: *Survey of Current Business*. Washington, U.S. Government Printing Office. Monthly reports for Jan. 1988-Aug. 1991; U.S. Department of Labor, Bureau of Labor Statistics: *Employment and Earnings*. Washington, U.S. Government Printing Office. Monthly reports for Jan. 1988-June 1991.

Employment, unemployment, and earnings

The unemployment rate for all workers continued its upward climb for the fourth consecutive quarter. Between the second quarters of 1990 and 1991, the unemployment rate grew 1.5 percentage points, to reach 6.8 percent. The negative growth in the real GNP in the second quarter of 1991 indicates that the economy is still in a recession. The growth in the unemployment rate reflects this continued slowdown in the economy (Figure 4).

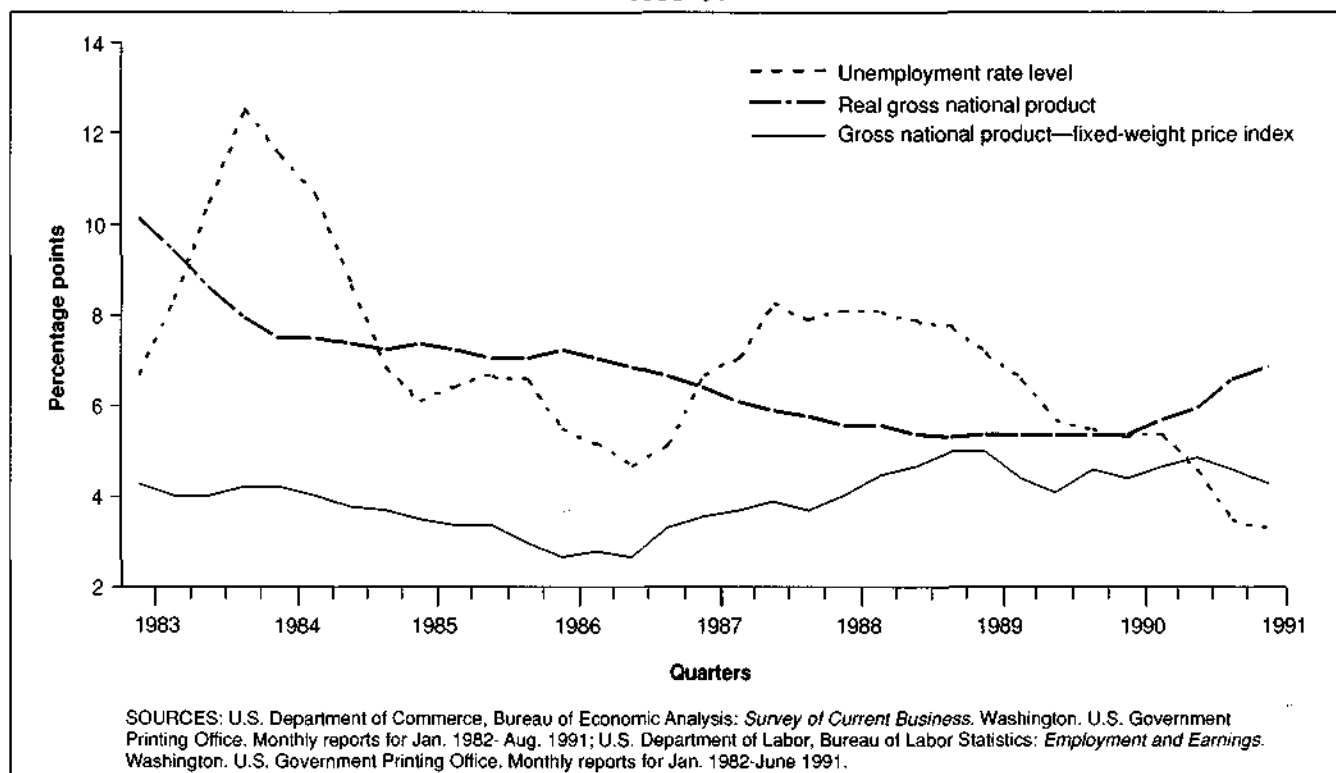
As discussed in an earlier section, health services employment continues to grow at a faster pace than total private non-agricultural workers. This supports the position that the health care industry has not suffered as much as other industries from the recession. Health service workers' average weekly hours resumed its positive growth, 0.2 percent between the second quarters of 1990 and 1991, after only one quarter of negative growth.

Prices

The GNP fixed-weight price index, the most comprehensive measure of pure price inflation, grew 4.2 percent between the second quarters of 1990 and 1991. The GNP implicit price deflator (which reflects changes in the composition of output as well as in price inflation) rose 3.9 percent between the second quarter of 1990 and that of 1991. 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 1990 and 1991.

CPI measures prices of consumer purchases for a market basket of goods and services. During the last three quarters, the CPI grew at a higher rate than did disposable income, the source of consumer spending. Because income is not keeping pace with prices, consumers experienced reduced purchasing power and have to make tradeoffs on higher priced purchases within the market basket. Medical care, a segment of the market

Figure 4
Percent change in indicators of national economic activity from the same period of previous year: 1983-91



basket, has been growing at twice the rate of overall consumer prices and 2.5 times the rate of disposable income. This puts pressure on the consumer when making purchasing decisions, because one vital segment of the market basket—medical care—is consuming more and more of the resources available.

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