



CURRENT POPULATION REPORTS

**Household Economic Studies**

Series P-70, No. 29

by  
Kathleen Short

# Health Insurance Coverage: 1987-1990



Selected Data from the Survey of Income  
and Program Participation

U.S. Department of Commerce  
Economics and Statistics Administration  
BUREAU OF THE CENSUS

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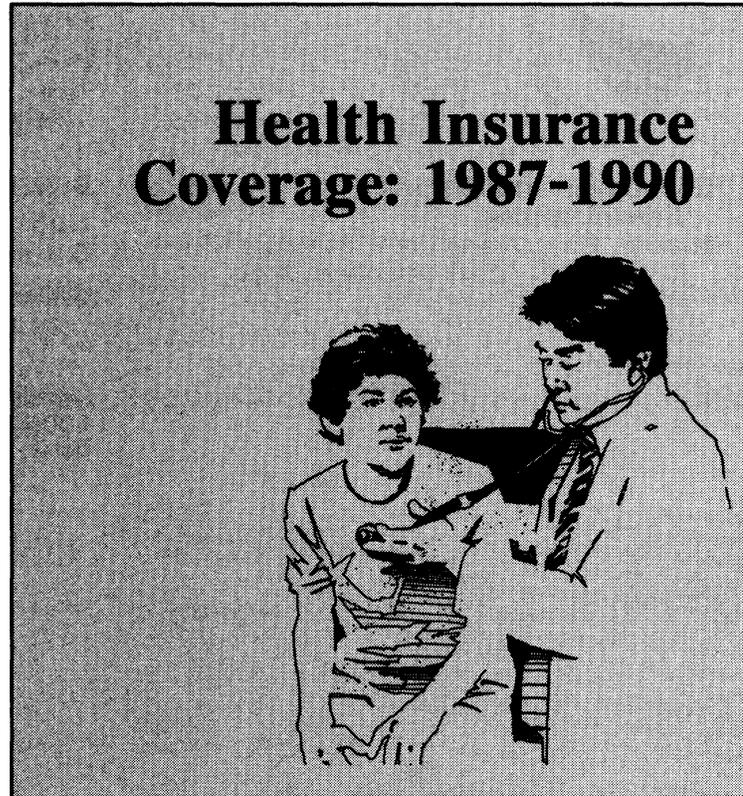
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Issued May 1992

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Kathleen Short



**U.S. Department of Commerce**  
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for Economic Affairs and Administrator

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**Mark W. Plant**, Acting Under Secretary  
for Economic Affairs and Administrator



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**C.L. Kincannon**, Deputy Director

**William P. Butz**, Associate Director  
for Demographic Programs

**HOUSING AND HOUSEHOLD  
ECONOMIC STATISTICS DIVISION**  
**Daniel H. Weinberg**, Chief

---

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# Health Insurance Coverage: 1987 To 1990

## INTRODUCTION

This report uses data from the Survey of Income and Program Participation (SIPP) to examine issues related to health insurance coverage. The report has two major points of focus. First, it presents quarterly estimates of the extent and type of health insurance coverage (and the characteristics of those who lacked insurance) from the first quarter of 1989 to the fourth quarter of 1990. The sources of this information are interviews from the 1988 and 1990 SIPP panels. Interviews for the 1988 panel were conducted between February 1988 and January 1990. Data presented here from the 1990 panel were obtained between February 1990 and May 1991.

Secondly, the report examines the extent to which people are covered by health insurance over a 28-month period beginning in October 1986. The source of this information is the full longitudinal file from the 1987 SIPP.<sup>1</sup> The panel file contains records for each survey person for whom a reasonably complete set of data for a 28-month period was obtained. Efforts were made during the life of the panel to follow persons that moved to ensure that the sample remained representative of the noninstitutional population of the United States.

It should be noted that all longitudinal estimates presented here are based only on responses of persons who were interviewed in all seven waves of the 1987 panel. Insofar as persons who left the panel were differentially covered by health insurance, estimates on months covered across the panel may be biased. Additionally, there may be a time-in-sample bias present in the longitudinal estimates. (See appendix D for further discussion.)

During SIPP interviews, information is collected on health insurance coverage (along with other information on income, labor force, and program participation) for each month in the 4-month reference period. It is therefore possible to classify persons by the number of months over the 28-month period that the person was covered by one or more types of health insurance.

Health insurance in this report refers to the following types of coverage: 1) employer- or union-provided insurance, 2) other privately purchased health insurance, 3) Medicare, 4) CHAMPUS, VA or military health care, and 5) Medicaid.

<sup>1</sup>This report is essentially an update of a previous study, "Health Insurance Coverage: 1986-1988." That report contained quarterly estimates from the 1985, 1986, and 1987 panels and longitudinal estimates from the 1985 panel. Comparisons with the earlier reports are presented in many of the tables in this report.

Since 1980, the March Income Supplement to the Current Population Survey (CPS) has included questions on health insurance coverage. The technical note in this report contains comparisons between CPS estimates of those with health insurance coverage and comparable SIPP estimates for calendar year 1988.

## HIGHLIGHTS

- In the fourth quarter of 1990, 13 ( $\pm 0.5$ ) percent of the population, or 32.1 ( $\pm 1.2$ ) million persons, were not covered by any type of health insurance on average in a given month.
- Longitudinal estimates from the period beginning January 1987 show that 16 ( $\pm 1.2$ ) million persons were uninsured for the entire year and 9 ( $\pm 0.9$ ) million for the full 28-month period.
- In the fourth quarter of 1990, nearly one-half of the persons without health insurance coverage were under the age of 25, an age group that accounts for 36 percent of the entire population.
- Black persons were more likely to lack insurance than Whites, and those of Hispanic origin were more likely to be uninsured than either Whites or Blacks. The percentages without coverage in the fourth quarter of 1990 were: Whites, 12 ( $\pm 0.5$ ) percent, Blacks, 18 ( $\pm 0.8$ ) percent, and those of Hispanic origin, 28 ( $\pm 1.1$ ) percent.
- Based on longitudinal estimates over calendar year 1987, 79 ( $\pm 0.8$ ) percent of all persons had continuous health insurance coverage over the year; 21 ( $\pm 0.8$ ) percent, or 50 million persons, lacked insurance for at least 1 month.
- Based on longitudinal estimates over a 28-month period, 74 ( $\pm 0.9$ ) percent of all persons had continuous health insurance coverage; 26 ( $\pm 0.9$ ) percent, or 61 million persons, lacked insurance for at least 1 month.
- Young adults (those between the ages of 18 and 21 years old) were the most likely of any age group to lack insurance for at least 1 month. Only one-half of the persons of this age group were covered by insurance for the entire 28-month period.
- Work experience has a significant effect on health insurance coverage. Eighty-six ( $\pm 1.4$ ) percent of persons who worked full-time for the entire period were

covered continuously by health insurance, compared with 73 ( $\pm 5.8$ ) percent for full-period, part-time workers, and 57 ( $\pm 2.0$ ) percent for workers with one or more job interruptions.

- Of those who participated in a major public assistance program at some point over the 28-month period, 49 ( $\pm 2.6$ ) percent spent 1 or more months without health insurance. The comparable proportion for those who did not participate in any of these programs was 22 ( $\pm 0.9$ ) percent. However, as a result of their increased likelihood of Medicaid coverage, persons with 28 months of assistance participation were about as likely to have continuous health insurance as those who did not participate at all in a major assistance program.

## QUARTERLY SIPP HEALTH INSURANCE ESTIMATES

According to the most recent SIPP quarterly estimates (those from the fourth quarter of 1990), 216 million persons, or 87 percent of the population, were covered by some type of health insurance on average in a given month.<sup>2</sup>

Thirteen percent (or 32.1 million persons) lacked insurance coverage. (See table A.) Nearly one-half of the persons without health insurance were under the age of 25, an age group that accounts for 36 percent of the U.S. population. Persons between the ages of 16 and 24 were the most likely of any age group to lack health insurance. About one-fifth (22 percent) of the persons in this age group were not insured.

Black persons were more likely to lack health insurance than White persons, and those of Hispanic origin were more likely to be uninsured than those in either group. Over one-fourth (28 percent) of Hispanic-origin persons were uninsured, compared with 18 percent of Black persons, and 12 percent of White persons.

The health insurance coverage rate of persons between the ages of 16 and 64 with a work disability (82 percent) was only slightly lower than the comparable rate for those with no work disability (85 percent). However, persons between the ages of 16 and 64 with a work disability who did not receive retirement or disability income were much more likely to be uninsured than persons who received these types of benefits. (See table 1.) Twenty-four percent of persons with a work disability who did not receive retirement or disability income were uninsured, compared with only 10 percent of work-disabled persons who received such benefits.

<sup>2</sup>Quarterly estimates of health insurance coverage are computed by dividing the total months covered by health insurance by 3 (the number of months in a quarter). Thus, they are average monthly estimates of health insurance coverage. Comparison to similar estimates from the Current Population Survey is presented in the technical note.

Table A. **Number and Percentage of Persons Not Covered by Health Insurance: Monthly Average Fourth Quarter 1990**

(In thousands)

Characteristic	Total	Not covered by health insurance	Percent
All persons .....	248,195	32,138	12.9
Age			
Less than 16 years .....	58,493	8,043	13.8
0 to 4 years .....	19,247	2,573	13.4
5 to 9 years .....	18,475	2,572	13.9
10 to 15 years .....	20,771	2,897	13.9
16 to 24 years .....	31,595	6,916	21.9
25 to 34 years .....	43,117	7,315	17.0
35 to 44 years .....	38,174	4,609	12.1
45 to 54 years .....	25,684	2,940	11.4
55 to 64 years .....	21,241	2,239	10.5
65 years and over .....	29,892	78	0.3
Race and Hispanic origin			
White .....	208,903	25,158	12.0
Black .....	30,764	5,530	18.0
Hispanic origin <sup>1</sup> .....	21,180	5,978	28.2

<sup>1</sup>Persons of Hispanic origin may be of any race.

Almost all persons in the AFDC and Federal SSI programs are categorically eligible for Medicaid.<sup>3</sup> Thus, as shown in table 1, virtually all of the participants in these programs were insured. Persons participating in the Food Stamp and public or subsidized housing programs were significantly more likely to be uninsured. (Participants in those programs are not categorically eligible for Medicaid.)

The effect of employment disruption on health insurance coverage is evident from the fact that persons receiving unemployment compensation were much more likely than the general population to lack health insurance. The rate at which unemployment compensation recipients were uninsured (39 percent) was higher than the comparable rates for Food Stamp participants and for those living in public or subsidized housing (16 percent).<sup>4</sup>

## Changes in Quarterly Health Insurance Estimates: 1989 to 1990

Table 2 presents monthly average estimates of health insurance coverage on a quarterly basis for the years 1989 and 1990. Estimates for 1989 are from the 1988 SIPP panel, 1990 estimates are from the 1990 panel. Health insurance coverage was quite stable over the 1989 to 1990 period. The percentage of persons covered in the first quarter of 1989 (87 percent) was not significantly

<sup>3</sup>See appendix B for further details on Medicaid eligibility.

<sup>4</sup>The percentages for Food Stamp participants and living in public or subsidized housing were not statistically different from one another.

different from the comparable estimate from the fourth quarter of 1990. Over this time there was a slight increase in the percentage of persons covered by Medicaid (from 7 to 8 percent).

The health insurance coverage rates of Blacks, Hispanic-origin persons, (81 percent and 71 percent, respectively), and the coverage rate for Whites (88 percent in the first quarter of 1989) showed no change over the period.

Caution should be used in interpreting this lack of change in health insurance coverage, since other surveys, including the Current Population Survey, have found that the percentage of the population without insurance has been increasing.<sup>5</sup> The lack of a change here may be partially attributable to 1) the relatively short period of time covered by the estimates, and 2) the effects of time-in-sample bias (see appendix D for more details on this issue).

### LONGITUDINAL ESTIMATES OF HEALTH INSURANCE COVERAGE

Health insurance coverage is commonly associated with other life circumstances, such as employment, retirement, and program participation. As a result, there exists a strong likelihood that for some segments of the population health insurance status will change over time.

<sup>5</sup>See Series P-60, No. 176-RD, "Measuring the Effect of Benefits and Taxes on Income and Poverty: 1990."

While the quarterly estimates in the preceding section provided information on the characteristics of those covered by health insurance at different points of time, they do not examine the dynamics of health insurance coverage, and the extent to which persons experience a lapse in coverage during a given time period.

Through the 1987 SIPP panel file, it is possible to examine the number of months persons were covered by health insurance over time up to a 28-month period. Interviews from this panel were conducted between February 1987 and May 1989, allowing examination of health insurance coverage for 2 full calendar years. Table B shows estimates for calendar year 1987. During this period 79 percent of all persons had health insurance coverage for the entire year; 21 percent, or 50 million persons, lacked coverage for at least 1 month. Seven percent, or 16 million persons, were never covered in 1987.

Between 1987 and 1989, 74 percent of all persons had continuous health insurance coverage over the entire 28-month period; 26 percent lacked health insurance for at least 1 month. (See table C.) Seven percent of all persons (or one-fourth of those who lacked health insurance for at least 1 month) were covered by insurance for 6 months or less. Four percent of all persons lacked coverage for the entire period, and another 3 percent were covered for 1 to 6 months. Eighty-six percent of those with continuous coverage over the 28-month period were covered by private health insurance; 6 percent were covered by Medicaid.

**Table B. All Persons, by Sex, Race, Hispanic Origin, and Health Insurance Coverage: Calendar Year 1987**

(In thousands)

Health insurance coverage	Both sexes	Male	Female	White	Black	Hispanic origin <sup>1</sup>
All persons .....	234,841	113,523	121,318	198,719	28,413	17,871
Covered by private or government health insurance:						
Less than 12 months .....	21.3	22.7	20.0	19.4	32.6	39.9
No months .....	6.8	7.4	6.2	6.2	9.7	16.8
1 To 4 months .....	4.2	4.7	3.7	3.7	6.9	7.3
5 to 8 months .....	5.6	5.9	5.3	4.8	10.6	9.9
9 to 11 months .....	4.7	4.7	4.7	4.6	5.4	5.9
12 months .....	78.7	77.3	80.0	80.6	67.4	60.1
1 to 12 months .....	93.2	92.6	93.8	93.8	90.3	83.2
Covered by private health insurance:						
Less than 12 months .....	31.5	30.9	32.0	27.5	56.2	56.1
No months .....	15.3	14.8	15.8	12.5	32.0	34.3
1 to 4 months .....	5.5	5.6	5.5	4.9	9.7	9.5
5 to 8 months .....	6.1	6.1	6.1	5.4	10.4	7.8
9 to 11 months .....	4.6	4.4	4.7	4.6	4.1	4.5
12 months .....	68.5	69.1	68.0	72.5	43.8	43.9
1 To 12 months .....	84.7	85.2	84.2	87.5	68.0	65.7
Covered by Medicaid:						
Less than 12 months .....	94.7	95.8	93.6	96.4	83.6	88.7
No months .....	90.7	92.3	89.3	93.3	74.5	79.4
1 to 4 months .....	1.7	1.6	1.8	1.4	3.7	4.2
5 to 8 months .....	1.3	1.1	1.5	1.1	3.0	3.4
9 to 11 months .....	0.9	0.7	1.1	0.7	2.3	1.7
12 months .....	5.3	4.2	6.4	3.6	16.4	11.3
1 to 12 months .....	9.3	7.7	10.7	6.7	25.5	20.6

<sup>1</sup>Persons of Hispanic origin may be of any race.

It is interesting to note the contrast between monthly average estimates of the uninsured (from quarterly SIPP data) with estimates of persons who lacked insurance for all or part of the 28 months they participated in the 1987 SIPP panel. Average monthly percentages of uninsured persons over the 1989-1990 period were about 13 percent. The number of persons who spent at least 1 month during the 1987 panel without insurance coverage was 26 percent. Thus, persons were about twice as likely to experience 1 or more months over a 28-month period without insurance than to lack insurance during any particular month. This, coupled with the percentage of persons who lacked insurance for the entire 28-month period (4 percent), indicate that changes in health insurance status are quite common over relatively short periods of time.<sup>6</sup>

### Sex, Race, and Hispanic Origin

Women were more likely than men to have continuous health insurance coverage. (See table C.) Twenty-eight percent of all men lacked health insurance for at least 1 month; the comparable figure for women was 25 percent.

<sup>6</sup>For an examination of the dynamics of health insurance for cohorts of privately insured and uninsured persons, see A. C. Monheit and C. L. Schur, "The Dynamics of Health Insurance Loss: A Tale of Two Cohorts," Inquiry 25 (Fall 1988): 315-327 and K. Swartz and T.D. McBride, "Spells Without Health Insurance: Distribution of Durations and Their Link to Point-in-Time Estimates of the Uninsured," Inquiry 27 (Fall 1990): 281-288.

The percentages of men and women with continuous private health insurance coverage were not different (64 percent). The differences between men and women in overall health insurance coverage are partially attributable to differences in economic status. Women are more likely than men to live in families with incomes below poverty,<sup>7</sup> and are more likely to participate in means-tested assistance programs.<sup>8</sup> Thus, women were more likely than men to take part in Medicaid, both in terms of continuous coverage (5 percent) and coverage for at least 1 month (12 percent). The comparable figures for men were 4 percent and 9 percent, respectively.

A second factor contributing to the difference in health insurance coverage between men and women is age. More women than men are 65 years old and over, and virtually everyone in this age group is covered by Medicare.

The relationship between race and Hispanic origin and health insurance was a strong one. The percentages of persons who spent at least 1 month without health insurance were 24 percent for Whites, 40 percent for Blacks, and 46 percent for persons of Hispanic origin. (See figure

<sup>7</sup>In 1990 the poverty rate was 11.7 percent for males and 15.2 percent for females. See Current Population Reports, Series P-60, No. 175, "Poverty in the United States: 1990."

<sup>8</sup>From the 1984 SIPP panel file, 20.5 percent of all females participated in means-tested public assistance programs, compared with 15.8 percent of all males. See Current Population Reports, Series P-70, No. 14, "Characteristics of Persons Receiving Benefits From Major Assistance Programs."

Table C. All Persons, by Sex, Race, Hispanic Origin, and Health Insurance Coverage: 1987 to 1989

(In thousands)

Health insurance coverage	Both sexes	Male	Female	White	Black	Hispanic origin <sup>1</sup>
All persons	230,989	111,506	119,484	195,633	27,807	17,443
Percent	100.0	100.0	100.0	100.0	100.0	100.0
Covered by private or government health insurance:						
Less than 28 months	26.5	28.1	25.0	24.2	39.8	46.4
No months	3.9	4.2	3.6	3.7	4.9	10.7
1 to 6 months	3.0	3.5	2.6	2.6	5.3	6.5
7 to 12 months	3.7	4.0	3.4	3.2	6.3	6.1
13 to 18 months	3.4	3.6	3.2	3.0	6.2	5.8
19 to 24 months	8.9	9.2	8.5	8.1	13.2	14.8
25 to 27 months	3.6	3.5	3.6	3.6	3.9	2.5
28 months	73.5	71.9	75.0	75.8	60.2	53.6
Covered by private health insurance:						
Less than 28 months	36.4	36.3	36.5	32.2	62.2	59.8
No months	11.1	10.8	11.5	8.8	25.4	26.2
1 to 6 months	4.6	4.7	4.6	3.9	9.4	8.9
7 to 12 months	4.6	4.6	4.6	4.0	7.6	6.6
13 to 18 months	3.5	3.5	3.4	3.1	5.9	4.5
19 to 24 months	9.4	9.5	9.4	9.0	12.2	12.2
25 to 27 months	3.1	3.3	3.0	3.4	1.8	1.5
28 months	63.6	63.7	63.5	67.8	37.8	40.2
Covered by Medicaid:						
Less than 28 months	95.6	96.4	94.7	97.2	85.4	91.2
No months	89.2	90.9	87.6	92.1	70.8	76.2
1 to 6 months	2.2	2.0	2.3	1.9	3.9	5.4
7 to 12 months	1.7	1.5	1.9	1.3	4.4	4.7
13 to 18 months	0.8	0.7	0.9	0.7	1.8	1.6
19 to 24 months	1.3	1.1	1.5	1.0	2.9	2.4
25 to 27 months	0.4	0.3	0.5	0.2	1.5	1.0
28 months	4.4	3.6	5.3	2.8	14.6	8.8

<sup>1</sup>Persons of Hispanic origin may be of any race.

1.) Whites were also much more likely than Blacks or persons of Hispanic origin to be covered by private health insurance. Ninety-one percent of all Whites were covered by private health insurance for at least 1 month. The comparable figures for Blacks and persons of Hispanic origin were about 75 percent.<sup>9</sup>

Blacks were more likely to be covered by Medicaid than Whites or persons of Hispanic origin. The percentages of Whites, Blacks, and Hispanic-origin persons with at least 1 month of Medicaid coverage were 8 percent, 29 percent, and 24 percent, respectively. Fifteen percent of all Black persons had continuous Medicaid coverage over the time period covered by the panel. The comparable percentages for Whites and Hispanic-origin persons were 3 percent and 9 percent, respectively.<sup>10</sup>

Comparisons with estimates from the 1985 SIPP panel reveal different patterns of health insurance coverage between the 1985-1987 period and the 1987-1989 period.

<sup>9</sup>The percentages for Blacks and Hispanic origin persons were not statistically different from one another.

<sup>10</sup>The percentage for White persons with at least one month of Medicaid coverage and Hispanic-origin persons with continuous Medicaid coverage were not statistically different.

(See table D.) A slightly higher proportion of persons had full coverage in the later period. The percent covered for the full 28 months rose from 72 percent in the 1985-1987 period to 74 percent from 1987-1989. This increase was primarily due to an increase in private health insurance, which rose from 61 to 64 percent. However, this increase in coverage was not experienced by all. The percent of Blacks with continuous private health insurance coverage fell 3 percentage points, from 41 to 38 percent between the two periods.

## Age

Young adults (those between the ages of 18 and 21) were the most likely to spend at least 1 month without health insurance coverage. (See table E.) About one-half (51 percent) of all persons between the ages of 18 and 21 lacked health insurance for at least 1 month; 10 percent were covered for less than 7 months.

Generally, for persons 18 years old and over, there was a positive relationship between age and continuous health insurance coverage. Continuous health insurance coverage rates for persons 18 to 21, 22 to 24, 25 to 34, 35 to 44,

**Table D. All Persons, by Sex, Race, Hispanic Origin, and Health Insurance Coverage: 1985 to 1989**

(In thousands)

Health insurance coverage	Both sexes	Male	Female	White	Black	Hispanic origin <sup>1</sup>
<b>1987 to 1989</b>						
All persons .....	230,989	111,506	119,484	195,633	27,807	17,443
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Covered by private or government health insurance:						
Less than 28 months .....	26.5	28.1	25.0	24.2	39.8	46.4
No months .....	3.9	4.2	3.6	3.7	4.9	10.7
28 months .....	73.5	71.9	75.0	75.8	60.2	53.6
Covered by private health insurance:						
Less than 28 months .....	36.4	36.3	36.5	32.2	62.2	59.8
No months .....	11.1	10.8	11.5	8.8	25.4	26.2
28 months .....	63.6	63.7	63.5	67.8	37.8	40.2
Covered by Medicaid:						
Less than 28 months .....	95.6	96.4	94.7	97.2	85.4	91.2
No months .....	89.2	90.9	87.6	92.1	70.8	76.2
28 months .....	4.4	3.6	5.3	2.8	14.6	8.8
<b>1985 to 1987</b>						
All persons .....	226,477	108,954	117,523	192,194	26,954	15,705
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Covered by private or government health insurance:						
Less than 28 months .....	28.1	29.8	26.5	26.4	37.7	52.0
No months .....	4.3	5.0	3.7	4.0	5.9	11.3
28 months .....	71.9	70.2	73.5	73.6	62.3	48.0
Covered by private health insurance:						
Less than 28 months .....	38.7	38.5	38.8	35.4	59.5	65.1
No months .....	11.6	11.3	11.9	9.6	25.5	26.3
28 months .....	61.3	61.5	61.2	64.6	40.5	34.9
Covered by Medicaid:						
Less than 28 months .....	95.8	96.8	94.8	97.3	85.8	91.3
No months .....	89.8	91.7	88.0	92.3	73.4	78.5
28 months .....	4.2	3.2	5.2	2.7	14.2	8.7

<sup>1</sup>Persons of Hispanic origin may be of any race.

45 to 64, and 65 years old and over were 49 percent, 51 percent, 70 percent, 77 percent, 82 percent, and 99 percent, respectively. (See figure 2.)

Young children (those under 6 years old) were the most likely to have been covered by Medicaid at some time during the period covered by the 1987 panel. One-fifth of all young children were covered by Medicaid for at least 1 month. The least likely persons to be covered by Medicaid were those who were 35 to 64 years old. Persons 65 years old and over who were covered by Medicaid were much more likely to have been covered for the entire 28-month period than persons under the age of 24 with Medicaid coverage. Around three-fifths (65 percent) of all persons 65 years old and over with at least 1 month of Medicaid

without health insurance, compared with 25 percent for those who had completed high school but not college, and 27 percent for those who had not completed high school.<sup>11</sup>

The continuous health insurance coverage rates of those who had completed high school but not college and those who had not completed high school were also different in their private health insurance and Medicaid coverage rates. About two-thirds (68 percent) of the high school graduates were covered by private health insurance for each of the 28 months, and 93 percent were covered by private health insurance for at least 1 month. The comparable percentages for those who had not completed high school were 48 and 78 percent, respectively.

**Table E. All Persons, by Age and Health Insurance Coverage: 1987 to 1989**

(In thousands)

Health insurance coverage	Under 18 years		18 to 21 years	22 to 24 years	25 to 34 years	35 to 44 years	45 to 64 years	65 years and over
	Total	Under 6 years						
All persons.....	63,349	22,369	13,598	11,510	41,400	32,955	43,502	24,675
Covered by private or government health insurance:								
Less than 28 months.....	32.6	33.7	51.1	48.7	30.2	23.1	17.6	0.7
No months.....	4.7	4.2	5.6	4.6	4.1	4.3	3.9	0.1
1 to 6 months.....	3.4	3.9	4.7	6.3	4.0	2.8	1.9	0.2
7 to 12 months.....	4.3	4.9	6.9	7.3	4.3	2.9	2.9	0.1
13 to 18 months.....	4.0	3.9	7.8	6.8	4.1	2.5	2.2	-
19 to 24 months.....	11.9	12.0	17.8	15.8	9.2	7.7	5.3	0.3
25 to 27 months.....	4.3	4.7	8.2	8.0	4.5	2.8	1.6	-
28 months.....	67.4	66.3	48.9	51.3	69.8	76.9	82.4	99.3
Covered by private health insurance:								
Less than 28 months.....	42.7	45.9	55.4	53.4	35.4	27.2	24.8	36.4
No months.....	15.6	16.8	10.7	8.0	8.9	8.3	9.0	12.6
1 to 6 months.....	5.3	6.6	5.6	9.0	5.3	3.6	2.9	3.9
7 to 12 months.....	5.2	5.8	7.6	8.2	4.9	3.2	3.3	3.5
13 to 18 months.....	3.7	4.0	7.3	7.2	3.7	2.3	1.9	2.8
19 to 24 months.....	9.7	9.5	17.4	13.8	8.7	7.1	6.0	12.7
25 to 27 months.....	3.1	3.1	6.8	7.3	3.9	2.7	1.8	0.9
28 months.....	57.3	54.1	44.6	46.6	64.6	72.8	75.2	63.6
Covered by Medicaid:								
Less than 28 months.....	93.0	92.0	96.7	97.2	96.6	97.6	97.4	93.0
No months.....	81.5	78.9	90.3	90.1	91.5	93.8	94.2	89.3
1 to 6 months.....	3.9	4.2	2.0	2.6	1.9	1.2	1.2	1.2
7 to 12 months.....	3.3	4.1	1.8	2.1	1.1	1.2	0.8	0.6
13 to 18 months.....	1.3	1.4	0.8	0.9	0.8	0.3	0.6	0.4
19 to 24 months.....	2.3	2.5	1.1	1.3	1.0	0.9	0.5	1.4
25 to 27 months.....	0.7	0.9	0.7	0.3	0.4	0.2	0.2	0.1
28 months.....	7.0	8.0	3.3	2.8	3.4	2.4	2.6	7.0

coverage were covered for the entire 28-month period. The comparable percentages for persons under 18 and 18 to 21 years old were 38 and 34 percent, not statistically different from one another.

### Years of School Completed

College graduates were more likely to have continuous health insurance than persons with lower levels of educational attainment (See table F.) Only 15 percent of college graduates (19 years old and over) spent at least 1 month

Those who had not completed high school were more likely to have been covered by Medicaid. Nineteen percent of persons without a high school education spent at least 1 month with Medicaid coverage, compared with 6 percent of persons who were high school (but not college) graduates. Non-high school graduates were also more likely to have had continuous Medicaid coverage (10 percent) than high school graduates (.2 percent). Persons who had not

<sup>11</sup>The percentages for persons who completed high school and who had not completed high school were not significantly different.

Figure 1.  
**Health Insurance Coverage, by Race and Hispanic Origin: 1987–1989**

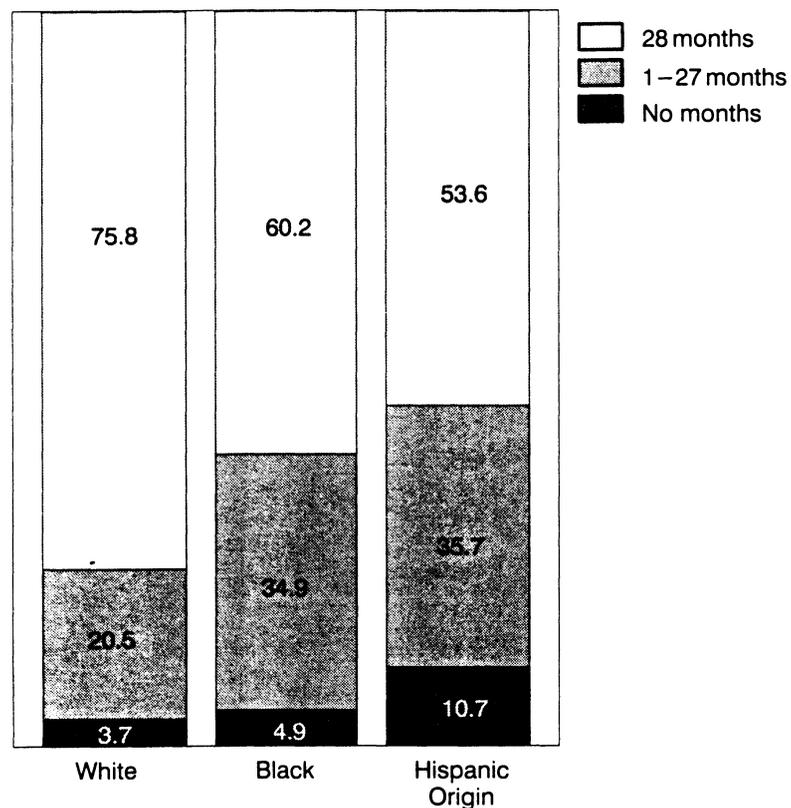


Figure 2.  
**Health Insurance Coverage, by Age Group: 1987–1989**

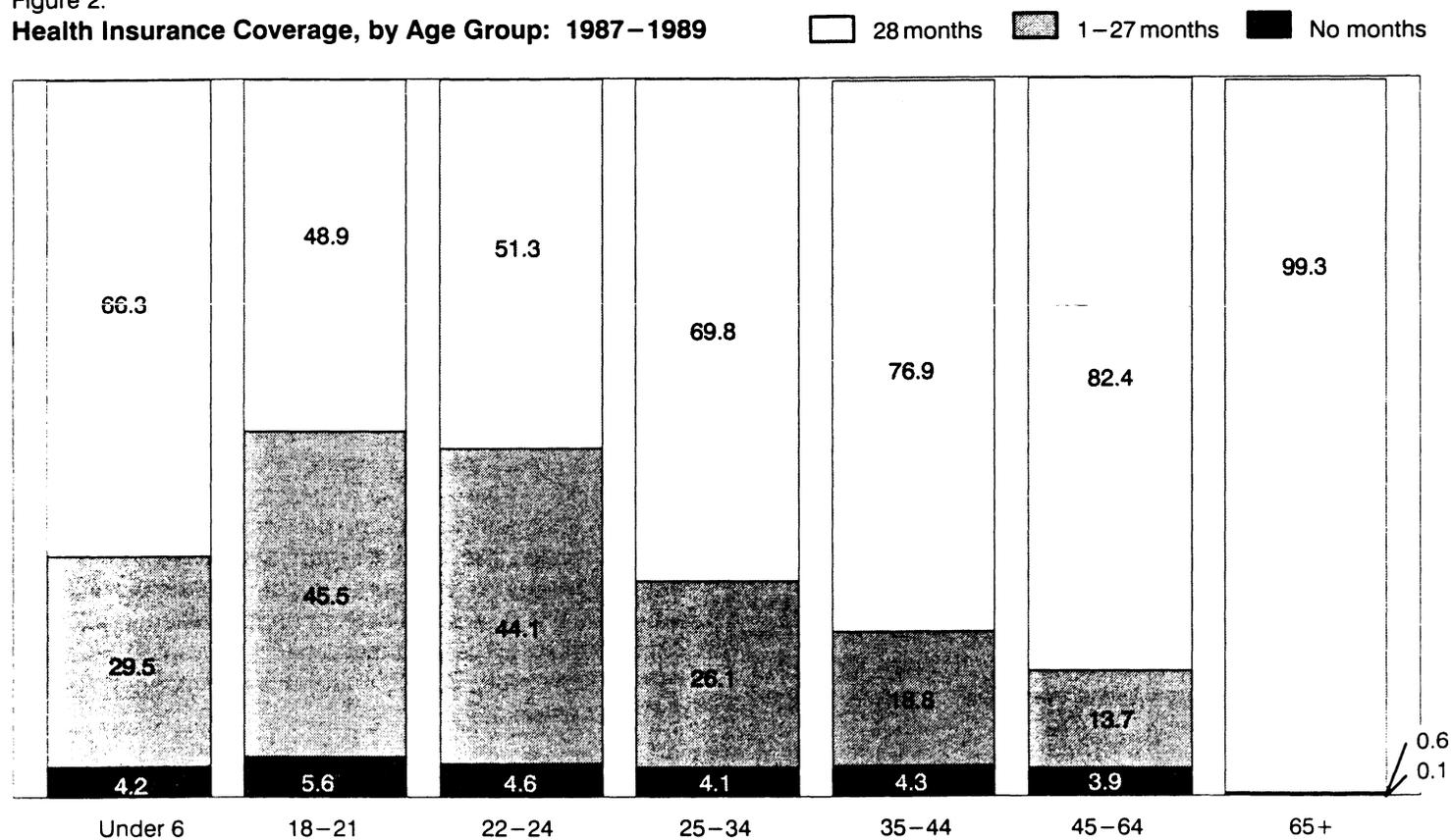


Table F. All Persons, by Years of School Completed and Health Insurance Coverage: 1985 to 1989

(In thousands)

Health insurance coverage	Persons 19 years and over	Years of school completed		
		Less than 12	12 to 15	16 and over
1987 to 1989				
All persons .....	164,179	37,555	96,268	30,356
Percent .....	100.0	100.0	100.0	100.0
Covered by private or government health insurance:				
Less than 28 months .....	23.6	27.2	25.1	14.5
No months .....	3.6	6.2	3.3	1.5
28 months .....	76.4	72.8	74.9	85.5
Covered by private health insurance:				
Less than 28 months .....	33.6	51.9	31.6	17.4
No months .....	9.5	21.9	6.8	2.4
28 months .....	66.4	48.1	68.4	82.6
Covered by Medicaid:				
Less than 28 months .....	96.5	90.1	98.0	99.6
No months .....	92.1	81.2	94.3	98.7
28 months .....	3.5	9.9	0.2	0.4
1985 to 1987				
All persons .....	160,053	38,791	92,842	28,420
Percent .....	100.0	100.0	100.0	100.0
Covered by private or government health insurance:				
Less than 28 months .....	25.1	28.8	26.8	14.4
No months .....	4.0	6.8	3.7	1.5
28 months .....	74.9	71.2	73.2	85.6
Covered by private health insurance:				
Less than 28 months .....	36.7	56.5	34.0	18.2
No months .....	10.3	23.6	7.4	2.0
28 months .....	63.3	43.5	66.0	81.8
Covered by Medicaid:				
Less than 28 months .....	96.6	90.3	98.2	99.8
No months .....	92.3	82.1	94.5	99.0
28 months .....	3.4	9.7	1.8	0.2

completed high school constituted 23 percent of the population 19 years old and over, yet they account for about one-half (54 percent) of the number of persons with at least 1 month of Medicaid coverage.

### Type of Residence and Region

Persons living in suburban areas<sup>12</sup> were more likely to have continuous health insurance coverage over the 28-month period than persons living in central cities or outside of metropolitan areas. (See table G.) About one-fourth (23 percent) of persons living in suburban areas experienced 1 or more months without health insurance coverage, compared with 31 percent for those living in central cities and 29 percent for those not living in metropolitan areas. (The latter two percentages were not significantly different.) Medicaid coverage was more prevalent in central cities.

<sup>12</sup>The term "suburban areas" refers to portions of metropolitan areas outside of central cities.

Fifteen percent of central city residents spent at least 1 month with Medicaid coverage, compared with 13 percent for those not living in metropolitan areas and 7 percent for those living in suburban areas.

Persons residing in the South and West were more likely to experience 1 or more months without health insurance coverage than those living in the Northeast or Midwest. The percentages of persons with 1 or more months without health insurance coverage were about 31 percent in the South and West, about 20 percent in the Northeast and Midwest.<sup>13</sup>

Some changes in coverage patterns have occurred over time. Between the 1985-87 and 1987-89 periods there were increases in the percentages of persons living in suburban areas and outside of metropolitan areas who were covered by health insurance for the entire 28-month period. (See table G.) Coverage was unchanged for persons in central cities.

<sup>13</sup>The South and West percentages were not significantly different; nor were the Northeast and Midwest percentages.

Table G. All Persons, by Residence, Region, and Health Insurance Coverage: 1985 to 1989

(In thousands)

Health insurance coverage	Central city	Suburbs	Outside of Metropolitan areas	Northeast	Midwest	South	West
All persons.....	68,772	106,416	55,801	45,181	60,717	77,407	47,684
Percent.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1987 to 89							
Covered by private or government health insurance:							
Less than 28 months.....	30.7	22.5	29.0	19.8	21.2	31.9	30.8
No months.....	4.3	2.6	6.0	1.8	2.3	6.0	4.6
28 months.....	69.3	77.5	71	80.2	78.8	68.1	69.2
Covered by private health insurance:							
Less than 28 months.....	45.0	29.0	40.0	30.2	29.9	42.1	41.4
No months.....	15.6	6.3	14.8	8.9	8.4	13.7	12.7
28 months.....	55.0	71.0	60.0	69.8	70.1	57.9	58.6
Covered by Medicaid:							
Less than 28 months.....	92.5	97.7	95.2	94.9	95.7	96.1	95.1
No months.....	84.6	93.2	87.3	89.6	89.8	89.9	87.1
28 months.....	7.5	2.3	4.8	5.1	4.3	3.9	4.9
1985 to 87							
All persons.....	66,100	104,656	55,721	45,921	60,957	76,437	43,163
Percent.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Covered by private or government health insurance:							
Less than 28 months.....	30.8	24.3	32.0	22.1	24.2	32.6	32.1
No months.....	4.5	3.3	6.0	1.9	3.6	5.9	5.2
28 months.....	69.2	75.7	68.0	77.9	75.8	67.4	67.9
Covered by private health insurance:							
Less than 28 months.....	44.9	32.6	42.6	34.8	32.0	44.2	42.5
No months.....	15.7	7.8	13.9	10.8	9.1	13.6	12.7
28 months.....	55.1	67.4	57.4	65.2	68.0	55.8	57.5
Covered by Medicaid:							
Less than 28 months.....	92.8	97.4	96.3	94.5	96.4	95.7	96.3
No months.....	85.4	93.0	88.8	88.2	91.2	90.2	88.6
28 months.....	7.2	2.6	3.7	5.5	3.5	4.3	3.7

Additionally, increases in continuous coverage were experienced by persons living in the Midwest, while the percent with continuous coverage was unchanged in the Northeast, South, and West between the 1985-87 and 1987-89 periods.

### Months with Low Income

One way to examine differences in economic status between individuals over time is to characterize those persons by the number of months in which the income of the family associated with this individual was below that family's monthly poverty threshold. As would be expected, persons with no low-income months were much more likely to have continuous health insurance coverage than persons with 1 or more low-income months. Only 15 percent of those with no low-income months spent 1 or

more months without health insurance, compared with over one-half (54 percent) of those with 1 or more low-income months. (See table H.)

However, the relationship between lack of health insurance coverage and months with low income is not a linear one. Those with 7 to 21 low-income months were more likely to experience 1 or more months without health insurance coverage than any other group (67 percent), and persons with 28 low-income months were less likely to lack health insurance for at least 1 month (33 percent) than those with 1 to 6 low-income months (50 percent). The higher health insurance coverage rates of those with more low-income months is attributable to their level of Medicaid coverage. Sixty-six percent of those with 22 or more low-income months were covered by Medicaid for at least 1 month; 40 percent were covered every month. The comparable percentages for those with 7 to 21 low-income months were 30 and 6 percent, respectively.

Table H. All Persons, by Months With Low Income and Health Insurance Coverage: 1985 to 1989

(In thousands)

Health insurance coverage	No months	1 low-income month or more				
		Total	1 to 6 months	7 to 21 months	22 low-income months or more	
					Total	28 months
1987 to 1989						
All persons .....	162,733	68,256	30,624	20,497	17,135	9,567
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Covered by private or government health insurance:						
Less than 28 months .....	15.1	53.6	50.0	67.1	44.1	33.2
No months .....	1.5	9.7	5.9	12.4	13.2	10.7
28 months .....	84.9	46.4	50.0	32.9	55.9	66.8
Covered by private health insurance:						
Less than 28 months .....	21.2	72.7	56.3	80.7	92.4	93.9
No months .....	3.7	28.9	9.5	25.1	68.0	77.1
28 months .....	78.8	27.3	43.7	19.3	7.6	6.1
Covered by Medicaid:						
Less than 28 months .....	99.0	87.4	98.3	93.9	60.2	48.0
No months .....	97.2	70.1	90.6	69.8	33.8	25.3
28 months .....	1.0	12.6	1.7	6.1	39.8	52.0
1985 to 1987						
All persons .....	154,496	71,982	32,839	22,122	17,021	9,530
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Covered by private or government health insurance:						
Less than 28 months .....	15.6	55.0	50.7	65.7	49.4	39.0
No months .....	1.8	9.7	6.1	10.9	15.3	12.7
28 months .....	84.4	45.0	49.3	34.3	50.6	61.0
Covered by private health insurance:						
Less than 28 months .....	23.2	71.9	56.9	77.2	94.1	96.1
No months .....	4.3	27.3	9.9	23.6	65.6	74.9
28 months .....	76.8	28.1	43.1	22.8	5.9	3.9
Covered by Medicaid:						
Less than 28 months .....	99.2	88.5	98.4	94.6	61.6	51.4
No months .....	97.4	73.4	92.2	73.1	37.6	29.6
28 months .....	0.8	11.5	1.6	5.4	38.4	48.6

### Income-to-Poverty Ratios

Income-to-poverty ratios represent another way of characterizing individuals by their relative economic status. These ratios are computed by summing total income of the family associated with each individual over the entire 28-month period, and dividing this total by the summed family monthly poverty thresholds. Thus, a ratio of under 1.0 indicates that an individual's family income over the 28-month period was less than the sum of that family's poverty threshold over that time. In the 28-month period covered here, 10 percent of persons had an income-to-poverty ratio less than 1.0.

One-half of persons in families with income-to-poverty ratios less than 1.0 lacked continuous health insurance, and 14 percent of these persons were not covered at all during the 28-month period. (See table I.) Those with income-to-poverty ratios less than 0.5 were equally likely

to lack continuous health insurance as those with ratios between 0.5 and .99, but type of coverage differed between these two groups.

Those with lower income-to-poverty ratios were slightly more likely to be covered by Medicaid. Sixty-eight percent of all persons with ratios less than 0.5 were covered by Medicaid for at least 1 month. The comparable proportion for those with income-to-poverty ratios between 0.5 and 0.99 was 58 percent.

As would be expected, there is a strong correlation between income-to-poverty ratios and the likelihood of continuous health insurance. The percentage of persons with health insurance for the entire 28 months rose from about 50 percent for those with ratios under 2.0 to 91 percent for those with ratios of 6.0 and over. Differences in

Table I. All Persons, by Income-to-Poverty Ratios and Health Insurance Coverage: 1985 to 1989

(In thousands)

Health insurance coverage	Total	Income-to-poverty ratio less than 1.0			1.0 to 1.99	2.0 to 2.99	3.0 to 3.99	4.0 to 4.99	5.0 to 5.99	6.0 and over
		Total	Less than .5	.5 to .99						
1987 to 1989										
All persons .....	230,989	22,169	6,158	16,011	43,570	49,094	40,950	28,125	17,803	29,278
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Covered by private or government health insurance:										
Less than 28 months .....	26.5	49.8	51.2	49.3	46.8	28.1	18.0	13.0	12.4	9.1
No months .....	3.9	13.9	18.8	12.0	8.1	2.7	1.5	0.6	0.9	0.7
28 months .....	73.5	50.2	48.8	50.7	53.2	71.9	82.0	87.0	87.6	90.9
Covered by private health insurance:										
Less than 28 months .....	36.4	90.9	94.5	89.6	62.1	34.7	22.9	16.1	16.2	10.5
No months .....	11.1	61.1	75.6	55.5	17.7	5.0	2.7	1.0	1.7	1.1
28 months .....	63.6	9.1	5.5	10.4	37.9	65.3	77.1	83.9	83.8	89.5
Covered by Medicaid:										
Less than 28 months .....	95.6	66.9	62.3	68.7	95.0	99.0	99.7	99.6	99.9	99.9
No months .....	89.2	39.3	31.8	42.2	82.2	95.6	97.9	98.6	99.5	99.2
28 months .....	4.4	33.1	37.7	31.3	5.0	1.0	0.3	0.4	0.1	0.1
1985 to 1987										
All persons .....	226,477	21,236	6,234	15,002	47,020	50,095	40,390	26,443	14,832	26,459
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Covered by private or government health insurance:										
Less than 28 months .....	28.1	55.3	54.7	55.5	45.7	29.9	19.2	13.3	11.9	8.9
No months .....	4.3	14.8	44.4	14.4	8.5	3.0	1.7	0.8	0.6	0.5
28 months .....	71.9	44.7	45.3	44.5	54.3	70.1	80.8	86.7	88.1	91.1
Covered by private health insurance:										
Less than 28 months .....	38.7	93.8	98.3	92.0	62.1	37.2	24.6	17.3	14.6	11.9
No months .....	11.6	60.2	73.5	55.3	18.6	5.3	2.9	1.6	0.9	1.2
28 months .....	61.3	6.2	1.7	8.0	37.9	62.8	75.4	82.7	85.4	88.1
Covered by Medicaid:										
Less than 28 months .....	95.8	67.6	59.1	71.1	95.3	99.6	99.7	99.8	99.8	99.9
No months .....	89.8	40.4	27.8	45.7	84.8	96.1	98.0	98.9	99.0	99.4
28 months .....	4.2	32.4	40.9	28.9	4.7	0.4	0.3	0.2	0.2	0.1

continuous private health insurance coverage by income-to-poverty ratio are even more dramatic, from 9 percent for persons with ratios under 1.0 to 90 percent for those with ratios of 6.0 or more.<sup>14</sup>

Over time, increases in the proportion fully covered by health insurance were primarily experienced by those persons with income-to-poverty ratios below 1.00. The percent in this group covered for the full 28-month period rose from 45 percent in the 1985-87 period to 50 percent in the later period. These increases in coverage are attributable to increases in private health insurance coverage. Six percent of this group were fully covered by private health insurance between 1985 and 1987. Between 1987 and 1989, 9 percent were continuously covered.

<sup>14</sup>The percent continuously covered by health insurance (private and otherwise) was not different for those with income-to-poverty ratios of 4 to 5 and 5 to 6.

## Type of Family

Persons who were members of married-couple families the entire 28-month period were less likely to spend 1 or more months without health insurance than persons who did not spend any time in this type of family. (See table J.) However, persons spending part (but not all) of the 28-month period in a married-couple family were more likely than either group to lack insurance coverage for 1 or more months. The proportions of persons without continuous health insurance coverage were 21 percent for those who spent the entire period in a married-couple family, 33 percent for those who spent no time in a married-couple family, and 51 percent for those who spent some (but not all) months in this type of family.

The reliance on Medicaid of families with a female householder, no husband present, with related children, is evident in table K. About one-half (50 percent) of persons

**Table J. All Persons, by Number of Months in a Married-Couple Family with Health Insurance Coverage: 1985 to 1989**

(In thousands)

Health insurance coverage	No months	Member of married couple family 1 to 27 months			28 months
		Total	1 to 15 months	16 to 27 months	
1987 to 1989					
All persons .....	57,516	19,016	8,891	10,125	154,458
Percent .....	100.0	100.0	100.0	100.0	100.0
Covered by private or government health insurance:					
Less than 28 months .....	33.0	51.0	48.0	53.7	21.0
No months .....	4.9	3.1	2.4	3.8	3.7
28 months .....	67.0	49.0	52.0	46.3	79.0
Covered by private health insurance:					
Less than 28 months .....	54.9	58.6	56.4	60.5	26.8
No months .....	23.0	10.2	8.9	11.4	6.8
28 months .....	45.1	41.4	43.6	39.5	73.2
Covered by Medicaid:					
Less than 28 months .....	87.0	97.6	97.8	97.4	98.5
No months .....	75.4	83.7	83.7	83.6	95.0
28 months .....	13.0	2.4	2.2	2.6	1.5
1985 to 1987					
All persons .....	53,390	20,871	9,881	10,990	152,215
Percent .....	100.0	100.0	100.0	100.0	100.0
Covered by private or government health insurance:					
Less than 28 months .....	34.0	51.8	55.9	48.0	22.8
No months .....	5.8	3.7	2.7	4.5	3.9
28 months .....	66.0	49.1	44.1	52.0	77.2
Covered by private health insurance:					
Less than 28 months .....	58.0	60.5	65.0	56.4	28.9
No months .....	25.1	8.4	7.5	9.2	7.3
28 months .....	42.0	39.5	35.0	43.6	71.1
Covered by Medicaid:					
Less than 28 months .....	86.5	97.6	96.8	98.4	98.8
No months .....	75.9	84.3	81.1	87.3	95.4
28 months .....	13.5	2.4	3.2	1.6	1.2

who spent the entire 28 months in this type of family were covered by Medicaid for at least 1 month; 27 percent were covered for the entire period. In contrast, only 6 percent of those that spent none of the period in this type of family were covered by Medicaid for at least 1 month.

In terms of private health insurance coverage, 62 percent of persons that spent the entire period in a family with a female householder, no husband present, with related children, were covered by this type of health insurance for at least 1 month, compared with 92 percent for those that spent none of the 28-month period in this type of family.

Over time there was little change in patterns of health insurance coverage for members of families with a female householder, no husband present, with related children.

### Employment Status

The relationship between health insurance coverage and employment is an important one, given the fact that such a large proportion of total health insurance is derived

through an employer (either as a primary policyholder or as a dependent). In the fourth quarter of 1990, 70 percent of insured persons were covered through either their own employment or the employment of another family member.

In order to examine the relationship between health insurance coverage and employment status, wage and salary workers 18 to 64 years old were separated into three groups: 1) those who worked full-time for the entire period, 2) those who worked part-time for the entire period, and 3) those with one or more job interruptions. Workers were characterized by their private or government health coverage, their private coverage, and their own employer-provided coverage.

Eighty-six percent of all full-period, full-time workers were covered by health insurance for the entire period and 64 percent were covered through their own employer-provided plans (table L). Female full-period, full-time workers were more likely than male workers in this category to have been continuously covered by health insurance. There was a significant difference in the continuous health

**Table K. All Persons, by Number of Months in a Family With a Female Householder, No Husband Present, With Related Children Under 18 Years, and Health Insurance Coverage: 1985 to 1989**

(In thousands)

Health insurance coverage	Member of family with female householder 1 to 27 months				28 months
	No months	Total	1 to 15 months	16 to 27 months	
<b>1987 to 1989</b>					
All persons.....	21,604	10,650	6,549	4,101	18,736
Percent.....	100.0	100.0	100.0	100.0	100.0
Covered by private or government health insurance:					
Less than 28 months.....	23.6	56.2	59.3	51.2	41.2
No months.....	3.9	3.7	5.0	1.8	4.8
28 months.....	76.4	43.8	40.7	48.8	58.8
Covered by private health insurance:					
Less than 28 months.....	31.5	65.3	68.2	60.7	73.4
No months.....	8.3	17.4	18.8	15.2	38.5
28 months.....	68.5	34.7	31.8	39.3	26.6
Covered by Medicaid:					
Less than 28 months.....	97.7	94.8	95.4	93.7	72.7
No months.....	93.8	70.8	71.5	69.7	49.9
28 months.....	2.3	5.2	4.6	6.3	27.3
<b>1985 to 1987</b>					
All persons.....	197,731	10,861	6,728	4,133	17,885
Percent.....	100.0	100.0	100.0	100.0	100.0
Covered by private or government health insurance:					
Less than 28 months.....	24.9	60.1	58.0	63.4	44.0
No months.....	4.1	5.3	5.8	4.6	6.0
28 months.....	75.1	39.9	42.0	36.6	56.0
Covered by private health insurance:					
Less than 28 months.....	33.7	71.0	68.9	74.5	74.2
No months.....	8.8	15.0	16.5	12.7	40.6
28 months.....	66.3	29.0	31.1	25.5	25.8
Covered by Medicaid:					
Less than 28 months.....	97.9	95.7	96.9	93.9	72.7
No months.....	94.2	70.5	72.3	67.4	52.7
28 months.....	2.1	4.3	3.1	6.1	27.3

insurance coverage rates of White and Black full-period, full-time workers. Hispanic-origin workers in this category were less likely than Whites or Blacks to have continuous coverage; the comparable rates for Whites, Blacks, and those of Hispanic origin were 87, 77, and 70 percent, respectively.

Younger full-period, full-time workers were less likely than their older counterparts to have been covered by health insurance continuously. Forty percent of full-period, full-time workers 18 to 21 years old spent 1 or more months without health insurance. (See table M.) For workers 22 years old and over, comparable percentages ranged from 12 percent (workers 35 to 44 years old) to 30 percent (workers 22 to 24 years old).

Full-period, part-time workers were less likely than their full-time counterparts to have continuous health insurance coverage. Over one-fourth (27 percent) of these workers lacked continuous coverage, compared with 14 percent of full-period, full-time workers. There was a major difference

between full- and part-time workers in their levels of own employer-provided coverage.

Of part-time workers with continuous coverage, only 26 percent were covered through their own plans. The comparable figure for full-time workers was 74 percent. The difference between the private and employer-provided health insurance rates for this group implies that many of these workers are covered as dependents (73 percent of full-period, part-time workers were women).<sup>15</sup>

Less than one-half (43 percent) of workers with one or more job interruptions experienced 1 or more months without health insurance coverage. Men in this category were more likely than women to lack health coverage for at least 1 month (49 to 37 percent), while men in this category were more likely than women to be covered continuously by their own employer-provided plan (23 to 13 percent).

<sup>15</sup>The percentages for full period part-time workers who lacked continuous plans and with workers private plans were not significantly different.

**Table L. Wage and Salary Workers With 28 Months of Continuous Health Coverage, by Sex, Race, Hispanic Origin, and Labor Force Status: 1985-1989**

(Numbers in thousands. Based on workers 18 to 64 years old.)

Health insurance coverage	Both sexes	Male	Female	White	Black	Hispanic origin <sup>1</sup>
<b>1987-1989</b>						
<b>Worked Full-Period, Full-Time</b>						
All persons .....	57,184	36,470	20,714	49,923	5,601	3,619
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Covered by private or government health insurance .....	85.7	84.4	88.1	86.9	77.4	69.9
Covered by private health insurance .....	85.0	83.8	87.2	86.2	76.5	69.7
Covered by employer-provided health insurance .....	63.8	65.2	61.5	64.3	60.4	54.0
<b>Worked Full-Period, Part-Time</b>						
All persons .....	5,632	1,505	4,127	5,015	419	365
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Covered by private or government health insurance .....	72.7	62.1	76.6	74.0	46.7	58.3
Covered by private health insurance .....	70.3	56.8	75.2	71.6	46.7	58.3
Covered by employer-provided health insurance .....	18.9	21.7	17.9	18.7	17.9	21.1
<b>Workers With One or More Work Interruptions</b>						
All persons .....	59,724	25,857	33,867	51,098	6,666	4,330
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Covered by private or government health insurance .....	57.4	50.5	62.7	60.3	39.4	38.1
Covered by private health insurance .....	52.9	47.4	57.1	56.5	29.5	31.5
Covered by employer-provided health insurance .....	17.0	22.9	12.5	17.9	10.9	11.4
<b>1985-1987</b>						
<b>Worked Full-Period, Full-Time</b>						
All persons .....	51,662	33,256	18,406	45,055	4,966	2,669
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Covered by private or government health insurance .....	86.0	85.2	87.5	86.9	81.5	72.9
Covered by private health insurance .....	85.1	84.5	86.2	86.0	80.2	72.2
Covered by employer-provided health insurance .....	63.3	64.4	61.3	63.8	61.5	56.4
<b>Worked Full-Period, Part-Time</b>						
All persons .....	4,860	1,142	3,718	4,389	350	324
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Covered by private or government health insurance .....	74.6	51.8	81.6	74.4	71.7	27.8
Covered by private health insurance .....	70.5	46.7	77.8	70.7	68.0	23.8
Covered by employer-provided health insurance .....	15.8	16.7	15.5	15.1	24.9	-
<b>Workers with one or more work interruptions</b>						
All persons .....	62,934	27,923	35,011	54,339	6,485	4,837
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Covered by private or government health insurance .....	55.3	48.2	61.0	57.4	40.2	34.7
Covered by private health insurance .....	51.0	45.6	55.4	53.6	30.7	30.6
Covered by employer-provided health insurance .....	16.5	21.8	12.2	16.7	13.9	13.7

-Represents or rounds to zero.

<sup>1</sup>Persons of Hispanic origin may be of any race.

**Table M. Wage and Salary Workers With 28 Months of Continuous Health Insurance Coverage, by Age and Labor Force Status: 1987 to 1989**

(In thousands)

Health insurance coverage	18 to 21 years	22 to 24 years	25 to 34 years	35 to 44 years	45 to 64 years
<b>Worked Full-Period, Full-Time</b>					
All persons .....	2,168	3,979	18,645	16,251	1,614
Percent .....	100.0	100.0	100.0	100.0	100.0
Covered by private or government health insurance .....	60.3	71.2	84.6	88.0	91.8
Covered by private health insurance .....	60.3	70.9	84.2	87.3	90.6
Covered by employer-provided health insurance .....	40.2	57.5	63.9	65.7	66.5
<b>Worked Full-Period, Part-Time</b>					
All persons .....	712	363	1,328	1,461	1,768
Percent .....	100.0	100.0	100.0	100.0	100.0
Covered by private or government health insurance .....	56.5	39.5	65.6	79.6	85.8
Covered by private health insurance .....	56.5	36.4	61.7	76.7	84.1
Covered by employer-provided health insurance .....	5.3	14.6	18.4	20.2	24.7
<b>Workers With One or More Work Interruptions</b>					
All persons .....	9,693	6,422	17,873	11,988	13,749
Percent .....	100.0	100.0	100.0	100.0	100.0
Covered by private or government health insurance .....	45.1	39.5	54.0	63.9	73.3
Covered by private health insurance .....	41.8	34.3	48.7	60.1	68.5
Covered by employer-provided health insurance .....	2.3	9.0	15.7	19.9	30.1

Fifty-seven percent of younger workers (those 18 to 24 years old) with job interruptions spent 1 or more months without health insurance coverage. For workers 25 years old and over, comparable percentages ranged from 27 percent (workers 45 to 64 years old) to 46 percent (workers 25 to 34 years old).

### Participation in Major Assistance Programs

As defined here, the term "major assistance programs" refers to the following types of means-tested assistance: AFDC, General Assistance, SSI, Food Stamps, and housing assistance. About one-half (49 percent) of those who participated in a major assistance program at some point over the 28-month period lacked continuous health insurance, and 9 percent were not covered by any type of health insurance for the entire 28 months. (See table N.) The comparable proportions for those who did not participate in these programs were 22 and 3 percent, respectively.

As a result of their higher level of Medicaid coverage, persons spending 22 months or more as a major assistance program participant were about twice as likely to have continuous health insurance coverage than persons

with 1 to 21 months of participation. Sixty-six percent of persons participating in assistance programs for 22 months or more were continually covered by health insurance, compared with 34 percent for persons with between 1 and 21 months of participation. Persons with 28 months of assistance participation were only slightly less likely to have continuous health insurance as those who did not participate at all in these programs. Sixty percent of the persons who participated in a major assistance program in each of the 28 months were covered by Medicaid for this entire period.

### TECHNICAL NOTE: COMPARISON OF HEALTH INSURANCE ESTIMATES BETWEEN SIPP AND CPS

In 1980 the Census Bureau began asking questions about health insurance on the March Income Supplement to the Current Population Survey (CPS). Health insurance questions are asked each March, and refer to coverage at any time during the previous year. Though the Census Bureau has published annual estimates of participants in specific health insurance programs (Medicare, Medicaid, employer-provided health insurance, etc.) for quite some time from the CPS, only recently did the Census Bureau

Table N. All Persons, by Receipt of Major Assistance Programs and Health Insurance Coverage: 1985 to 1989

(In thousands)

Health insurance coverage	No months in program	Months participating in an assistance program				
		Total	1 to 6 months	7 to 21 months	22 months or more	
					Total	28 months
1987 to 1989						
All persons .....	193,941	37,049	8,658	9,661	18,730	15,086
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Covered by private or government health insurance:						
Less than 28 months .....	22.1	49.4	60.1	70.6	33.6	27.6
No months .....	3.0	8.5	6.5	11.7	7.9	5.8
28 months .....	77.9	50.6	39.9	29.4	66.4	72.4
Covered by private health insurance:						
Less than 28 months .....	27.2	84.9	68.4	86.3	91.9	91.9
No months .....	4.7	44.8	14.0	28.4	67.4	69.3
28 months .....	72.8	15.1	31.6	13.7	8.1	8.1
Covered by Medicaid:						
Less than 28 months .....	99.9	73.0	99.9	97.1	48.1	40.1
No months .....	98.3	41.6	69.1	51.8	23.6	20.3
28 months .....	0.1	27.0	0.1	2.9	51.9	59.9
1985 to 1987						
All persons .....	191,088	35,390	7,753	9,104	18,532	14,832
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Covered by private or government health insurance:						
Less than 28 months .....	23.7	51.8	69.7	69.1	35.8	27.2
No months .....	3.5	8.7	10.8	12.5	6.0	5.6
28 months .....	76.3	48.2	30.3	30.9	64.2	72.8
Covered by private health insurance:						
Less than 28 months .....	29.8	86.4	77.0	80.6	93.1	93.2
No months .....	5.4	45.0	19.6	27.7	64.2	66.3
28 months .....	70.2	13.6	23.0	19.4	6.9	6.8
Covered by Medicaid:						
Less than 28 months .....	99.9	73.5	99.9	98.5	50.2	40.6
No months .....	98.6	42.0	70.4	53.4	24.5	23.7
28 months .....	0.1	26.5	0.1	1.5	49.8	59.4

begin publishing comprehensive estimates of health insurance coverage from the CPS.<sup>16</sup> However, even prior to their publication, the information has been widely available to private and government researchers through CPS micro-data files, and the CPS has been a major source of information on the extent of health insurance coverage in the 1980's. Table O contains comparisons between CPS health insurance estimates and SIPP estimates from the 1987 panel.

The way in which health insurance questions are asked on CPS and SIPP differ considerably. CPS respondents are asked each March about their coverage during the previous calendar year. A "Yes" to any of the health insurance questions denotes at least some coverage of

that type during the previous calendar year. SIPP employs a 4-month reference period; respondents are asked about their health insurance status in each month.

In the SIPP, respondents are asked about health insurance coverage in each month of the reference period. Each person is asked if they are covered as well as whether or not their policies cover other persons in the household. Health insurance coverage indicators are set either by self-reported coverage or by reported coverage from others in the household. This process may result in an overestimate of health insurance coverage in the SIPP. This process is currently being investigated at the Census Bureau.

In order to compare CPS and SIPP estimates of health insurance coverage, SIPP respondents were classified by whether or not they reported 1 or more months of health insurance coverage during the months corresponding to calendar year 1988 (the latest calendar year included in

<sup>16</sup>See Current Population Reports, Series P-60, No. 175, "Poverty in the United States: 1990," and Series P-60, No. 176-RD, "Measuring the Effect of Benefits and Taxes on Income and Poverty: 1990."

**Table O. Comparison of CPS and SIPP Estimates, of Health Insurance Coverage, by Selected Characteristics: Calendar Year 1988**

Characteristic	Percent covered by:									Percent not covered by health insurance		
	Private or government health insurance			Private health insurance			Medicaid					
	CPS	SIPP/L*	SIPP/Q*	CPS	SIPP/L	SIPP/Q	CPS	SIPP/L	SIPP/Q	CPS	SIPP/L	SIPP/Q
All persons . . . . .	86.6	93.3	86.8	75.5	85.1	76.4	8.4	9.1	7.4	13.4	6.7	13.2
<b>Sex</b>												
Male . . . . .	85.3	92.7	85.5	75.6	85.5	76.6	7.0	7.6	5.6	14.7	7.3	14.5
Female . . . . .	87.8	93.9	88.1	75.5	84.8	76.2	9.6	10.5	9.0	12.2	6.1	11.9
<b>Age</b>												
Under 25 years . . . . .	83.7	91.3	82.9	68.4	80.8	71.2	13.4	14.1	10.6	16.3	8.7	17.1
25 to 44 years . . . . .	84.2	92.6	85.2	77.3	87.6	78.6	5.3	6.1	5.0	15.8	7.4	14.8
45 to 64 years . . . . .	88.5	94.1	89.2	80.6	88.9	82.5	4.5	4.8	4.1	11.5	5.9	10.8
65 years and over . . . . .	99.1	99.9	99.5	68.4	85.5	77.0	8.4	9.1	8.8	0.9	0.1	0.5
<b>Race and Hispanic Origin</b>												
White . . . . .	87.7	93.8	87.8	78.3	87.9	79.9	6.1	6.6	4.9	12.3	6.2	12.2
Black . . . . .	80.4	90.4	81.8	52.9	68.5	55.4	23.6	22.6	23.0	19.6	9.6	18.2
Hispanic origin . . . . .	68.2	84.1	69.4	50.8	67.8	53.3	15.5	18.8	13.9	31.8	15.9	30.6

\*Persons of Hispanic origin may be of any race.

SIPP/L are longitudinal estimates, SIPP/Q are point-in-time quarterly estimates from the SIPP (1988, fourth quarter).

the 1987 SIPP panel). Table O compares these estimates with March 1989 CPS figures, also referring to calendar year 1988. The table also includes quarterly SIPP estimates from the fourth quarter of 1988.

According to the March 1989 CPS, 13 percent of all persons were not covered by health insurance at any time during the previous year. According to the 1987 SIPP panel file, 7 percent of all persons were not covered by health insurance at any time during calendar year 1988. CPS and SIPP estimated percentages of persons covered by Medicaid were not significantly different. However, the CPS estimates of the proportion of persons with private health insurance coverage was 9 percentage points less than the SIPP estimates of 85 percent. CPS estimates of private health insurance coverage were uniformly lower than comparable SIPP estimates by sex, age, and race and Hispanic origin.

It is revealing to note that the CPS annual proportion of persons without insurance coverage is quite similar to SIPP monthly average estimates of the uninsured. For instance, the SIPP monthly average proportion of persons

without health insurance in the fourth quarter of 1989 was 13 percent, the same as the CPS calendar year 1988 estimate. This lends credence to the argument that there is a tendency for CPS respondents to answer health insurance questions based on their current status, even though the questions refer to coverage at any time during the previous calendar year.<sup>17</sup>

#### USER COMMENTS

We are interested in your reaction to the usefulness and content of this report. We welcome your recommendations. If you have any suggestions or comments, please send them to:

Charles T. Nelson  
Housing and Household  
Economic Statistics Division  
U.S. Bureau of the Census  
Washington, D.C. 20233

<sup>17</sup>Katherine Swartz makes this argument in "How Different are Four Surveys' Estimates of the Number of Americans Without Health Insurance," Project Report, Urban Institute, 1984.