

Americans' health insurance coverage, 1980-91

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The authors of this article have used Current Population Surveys to summarize public and private health insurance trends in the United States over the last 12 years. Key findings include the declining percentage of the non-elderly population with employer-sponsored coverage and increasing numbers of low- and middle-

income uninsured. That is, in a period of fast-rising health care costs, the poor and the near-poor in working families have been losing coverage for health care and facing increasing risks of inadequate care and financial loss. These data highlight health care access and financing problems now facing the Nation.

Highlights

This article provides an overview of trends in public and private health insurance coverage over the last decade, with special emphasis on age, income, employment, and regional characteristics of insured and uninsured populations. Our data source, the March Current Population Survey (CPS) by the U.S. Bureau of the Census, contains information on health insurance coverage for the non-institutionalized population. These data are frequently cited in discussions of the size of the uninsured population in the United States, but they are rarely used to show trends in insurance coverage such as those the United States has experienced over the last 12 years. Key findings include:

- Income is the single most important factor in a non-elderly family's decision to purchase health insurance. From the 1980 to the 1991 CPS, the percent of the non-elderly population in poverty increased, and the percent with insurance coverage decreased.
- For the elderly, income in relation to the poverty level rose, with a substantially larger proportion of the elderly in the highest income category. For the elderly, income did not significantly affect insurance coverage, and the likelihood of being uninsured was low regardless of income level.
- The data confirm that children in families with incomes slightly above the Federal poverty level fell through the Medicaid safety net more often than did children in families that were poor. Children in the near-poor income group were most likely of all income groups to be uninsured.
- Holding a full-time job for the entire year did not guarantee health insurance coverage. In the 1991 CPS, 18.7 million members of families headed by full-time, full-year workers were uninsured, up 18.1 percent from levels reported in the 1988 CPS. In contrast, the total number of uninsured persons increased 11.9 percent from 1988 to 1991, indicating that relatively more full-time, full-year workers were becoming uninsured.
- From CPS survey years 1988 to 1991, industrial composition of the United States shifted toward service industries in which the provision of employer-

sponsored insurance is less likely to be found. Simultaneously, the percentage of workers offered and/or able to afford insurance through their employment declined in almost every industrial sector. Together, these industry changes produced a 5-percent decline in the number of workers owning coverage through employment, compared with those who would have owned policies in the absence of those shifts.

- Selected industries subsidized the provision of employer-sponsored health insurance to workers in other sectors by providing dependent coverage to employees in other industries. Sectors such as mining; manufacturing, and transportation, communications, and public utilities were found to cross-subsidize industries such as agriculture, forestry, and fisheries; construction; retail trade; services; and the self-employed.
- Large regional differences exist in the percentage of the population that is uninsured. In 1991, 9.0 percent of the population in New England lacked health insurance coverage, while more than twice that percentage were uninsured in the West South Central States.

Background

Since at least 1980, the United States has faced the twin problems of increasing numbers of uninsured and rising health costs. The problems are closely intertwined: Options for covering growing numbers of uninsured have become an increasingly important issue to policymakers and individuals as health costs have grown rapidly over the last decade and are projected to continue rising in the foreseeable future. These costs consume a large share of the Nation's output—12.2 percent of gross national product in calendar year 1990 (Levit et al., 1991)—and limit national expenditures on other goods. The uninsured are affected because lack of health insurance may create a financial barrier to health care—more than 34 million individuals were without insurance in the 1991 CPS. Costs also affect the insured because health insurance for a vast majority of the non-elderly—63 percent in the 1991 CPS—is closely tied to employment, and rising employer-sponsored private health insurance costs (Levit and Cowan, 1991) have the potential to reduce the size of wages and other fringe benefits. For other insured, continually rising costs may make insurance

unaffordable, forcing them into the ranks of the uninsured.

Issues such as these are creating national debate about the state of the Nation's health care system and are producing wide-ranging proposals for access and financing reform. The data presented in this article identify trends and potential problem areas that should be considered in developing solutions to health care access and financing problems.

Current Population Survey

For the past 50 years, the U.S. Bureau of the Census has conducted the CPS each month to collect statistics on employment and unemployment for the Nation. The surveyed population is constructed as a national probability sample of approximately 57,000 households, covering 158,000 non-institutionalized persons in 1991. Households interviewed are selected on the basis of residence, to represent the Nation as a whole, individual States, and other specified areas (U.S. Bureau of the Census, 1985, 1991).

The survey asks extensive questions about occupation, industry, work hours, hourly earnings, income, family structure, education, and a variety of demographic characteristics. In addition, the March supplement annually queries people about their health insurance coverage. Because of the CPS' strength in describing work force characteristics, it is one of the best sources for identifying work-related characteristics of the owner of an employer-sponsored group health insurance policy, as well as of uninsured workers.

The CPS health insurance questions generally solicit information on the same categories of health insurance over time. However, changes in the questionnaire and in imputation and processing techniques had an impact on responses collected in specific years. The most significant changes in private health insurance questions, introduced in the 1988 CPS, produced inconsistencies in trends of insurance coverage information available from the CPS. Awareness of these changes, which are described later, allows the analyst to appropriately extract and use trends in insurance sources and coverage over time.

The 1988 revisions to the CPS questions primarily affected the comprehensiveness of information on plan owners and sources of insurance coverage for children, young adults, and retirees in several ways. First, policy owners were asked about only one health insurance plan, even though they could own two or more plans. This made counts of private health insurance policies owned by individuals less complete than in earlier years.

Second, more employer-sponsored plans were identified beginning with the 1988 CPS, because all adults age 15 years or over, rather than only employed persons, were asked about employer-sponsored health insurance plans. This change identified coverage through former employers for persons owning retirement health insurance coverage and their dependents or for other non-workers and their dependents with extended coverage for separated employees.

Third, by asking all persons 15 years of age or over about health insurance coverage, additional adult dependents (primarily age 22 or over) could identify coverage. Prior to 1988, this group would only be asked if they were policy owners and who was covered by their policies; they could not directly identify themselves as a covered dependent. Persons in this group would also not be assigned coverage as a dependent child, because the U.S. Bureau of the Census imputation rules did not permit CPS to show coverage of children age 22 or over.

Fourth, information on the insurance coverage of children under 15 years of age became more comprehensive by adding questions about outside-household sources of insurance coverage for this age group. The survey directly solicited information on insurance coverage and ownership from persons age 15 years or over but used rules to impute insurance coverage for children and other dependents based on broad responses concerning who was covered. If a policy owner indicated that his or her insurance plan covered children, for example, the U.S. Bureau of the Census imputed coverage to all never-married children under age 22, even though some of them were working and covered under their own policies or were uninsured. Beginning in the 1988 CPS, direct questions about children's insurance coverage were used to augment imputed coverage information. Additional cover sheet questions directly solicited children's Medicaid and other (non-employer-sponsored) private health insurance coverage independent of adult coverage. In this article, children identified as a result of these questions as having coverage are referred to as "cover sheet children," because responses indicating their coverage were recorded on the survey cover sheet.

Fifth, the U.S. Bureau of the Census instituted weighting, programming, and processing improvements to coincide with these major questionnaire changes.

In addition to the changes made beginning in 1988, the omission of certain questions in the 1981 questionnaire affected the availability of other (non-employer) private insurance information. This omission influenced tabulated counts of private health insurance coverage and the counts of the uninsured.

Despite these data inconsistencies, valuable information about insurance trends can be extracted. For some insurance source and coverage time series, data are separated into two time periods, 1980-87 and 1988-91, to take advantage of more comprehensive data available after the major survey changes in 1988.

However, data are also presented for 1980-91 without the addition of cover sheet children. Examining data without cover sheet children removes some but not all of the inconsistencies that occurred between the 1987 and 1988 CPS and provides a broad indication of cumulative growth from 1980 to 1991.

The March CPS questionnaire requests insurance coverage and ownership information for the year prior to the one in which the survey was conducted. Analysts who use CPS information disagree as to whether responses reflect insurance status during the previous year as requested or the current year (Swartz, 1986;

Kronick, 1991). To avoid confusion in the presentation of our data, the year given refers to the CPS survey year, except when noted, and reflects responses to questions on the March survey supplement.

Sources of insurance

In the CPS, respondents may specify insurance coverage through private health insurance or one of three public programs: Medicare, Medicaid, or coverage for current or former military personnel and dependents. Tabulations from the 1991 CPS show that 214 million persons or 86.1 percent of all Americans

were covered by some form of public or private insurance (Table 1). Almost three-quarters of the population obtained coverage through private insurance and one-quarter through public programs. The publicly and privately insured groups overlapped for 11.6 percent of the population: Almost three-quarters of these overlaps were Medicare enrollees who also had some form of private health insurance coverage. The remaining 13.9 percent of the population lacked insurance from any source.

Over the past 12 years, changes in the CPS questionnaire produced discontinuities in counts of persons covered by some sources as just described.

Table 1
Sources of health insurance coverage and percent distribution: United States, 1980-91

Survey year	Population ² in thousands	Number of persons in thousands insured by				Total persons in thousands insured by ¹			
		All sources	Private health insurance only	Public programs only	Private insurance and public programs	Total uninsured in thousands	Private health insurance ⁴	Public programs ³	
Including cover sheet children ⁶									
1991	248,886	214,167	153,202	32,031	28,933	34,719	182,135	60,965	9,922
1990	246,191	212,807	155,425	29,197	28,185	33,385	183,610	57,382	9,870
1989	243,685	211,005	154,155	28,986	27,864	32,680	182,019	56,850	10,105
1988	241,187	210,161	153,879	28,001	28,282	31,026	182,160	56,282	10,542
Excluding cover sheet children ⁶									
1991	248,886	209,257	150,181	32,301	26,774	39,629	176,956	59,076	9,922
1990	246,191	208,145	152,325	29,846	25,974	38,047	178,298	55,820	9,870
1989	243,685	206,855	151,290	29,669	25,896	36,830	177,186	55,565	10,105
1988	241,187	206,364	151,295	28,586	26,483	34,823	177,779	55,069	10,542
1987	238,789	201,432	146,807	30,995	23,630	37,357	170,436	54,625	9,982
1986	236,749	199,569	145,444	31,070	23,055	37,180	168,499	54,125	10,471
1985	234,066	197,011	143,989	30,981	22,041	37,055	166,030	53,022	9,756
1984	231,852	196,527	144,431	30,476	21,620	35,325	166,051	52,095	9,561
1983	229,587	196,591	144,788	30,558	21,244	32,996	166,033	51,802	9,992
1982	227,375	196,400	144,333	30,169	21,898	30,974	166,231	52,067	10,453
1981	225,242	NA	NA	NA	NA	NA	NA	48,878	8,468
1980	223,160	192,686	145,744	27,986	18,956	30,474	164,700	46,942	7,931
Percent distribution including cover sheet children ⁶									
1991	100.0	86.1	61.6	12.9	11.6	13.9	73.2	24.5	4.0
1990	100.0	86.4	63.1	11.9	11.4	13.6	74.6	23.3	4.0
1989	100.0	86.6	63.3	11.9	11.4	13.4	74.7	23.3	4.1
1988	100.0	87.1	63.8	11.6	11.7	12.9	75.5	23.3	4.4
Percent distribution excluding cover sheet children ⁶									
1991	100.0	84.1	60.3	13.0	10.8	15.9	71.1	23.7	4.0
1990	100.0	84.5	61.9	12.1	10.6	15.5	72.4	22.7	4.0
1989	100.0	84.9	62.1	12.2	10.6	15.1	72.7	22.8	4.1
1988	100.0	85.6	62.7	11.9	11.0	14.4	73.7	22.8	4.4
1987	100.0	84.4	61.5	13.0	9.9	15.6	71.4	22.9	4.2
1986	100.0	84.3	61.4	13.1	9.7	15.7	71.2	22.9	4.4
1985	100.0	84.2	61.5	13.2	9.4	15.8	70.9	22.7	4.2
1984	100.0	84.8	62.3	13.1	9.3	15.2	71.6	22.5	4.1
1983	100.0	85.6	63.1	13.3	9.3	14.4	72.3	22.6	4.4
1982	100.0	86.4	63.5	13.3	9.6	13.6	73.1	22.9	4.6
1981	100.0	NA	NA	NA	NA	NA	NA	21.7	3.8
1980	100.0	86.3	65.3	12.5	8.5	13.7	73.8	21.0	3.6

¹Included in other columns in this table.

²Civilian non-institutionalized population in the United States and military personnel living outside military bases or on military bases with their families.

³Calculated by summing "Public programs only" and "Private insurance and public programs."

⁴Calculated by summing "Private health insurance only" and "Private health insurance and public programs."

⁵Civilian Health and Medical Program of the Uniformed Services and other programs covering current and former military personnel and their dependents.

⁶In the 1988-91 surveys, additional questions concerning health insurance status of children were asked. This set of questions is referred to as "cover sheet" questions. Responses to these questions resulted in additional children being assigned health insurance coverage.

NOTES: Public programs indicate coverage by Medicare, Medicaid, and/or CHAMPUS. NA indicates that comparable statistics are not available.

SOURCE: U.S. Bureau of the Census: *Current Population Survey, 1980-91*; tabulations prepared by Fu Associates, Ltd., for the Health Care Financing Administration, Office of the Actuary.

The most significant changes occurred between the 1987 and 1988 versions of the survey. These survey improvements minimized the magnitude of change in the proportion of the population with and without health insurance coverage as recorded in the 1980-91 surveys. If the survey had been more consistent over time, the trends would likely have been more pronounced than those reported here.

The percent of Americans covered by private health insurance declined from 1980 to 1991. Because of discontinuities in the CPS time series, we separate this time span into two periods: 1980 through 1987 and 1988 through 1991. Despite a gain of 5.7 million persons covered by private health insurance during the first period, the proportion of the population with private coverage declined from 73.8 to 71.4 percent. The cumulative growth of 3.5 percent in private insurance coverage did not keep pace with the population increase of 7.0 percent.

During the first period, the Nation was emerging from recession. The economy was recovering from a bout with general price inflation in 1980 and 1981 and continued price inflation for medical care that extended into 1983 (Donham, Maple, and Levit, 1992), which affected business' ability to provide increasingly expensive health benefits for workers (Kronick, 1991). The industrial composition in the country was also changing rapidly, with more jobs shifting from high-benefit industries such as manufacturing to the service sector, which is characterized by lower benefits. The recession decreased the demand for labor, particularly for factory workers, as many businesses eliminated excess jobs. Labor unions had little choice but to accept benefit and wage compromises (Plunkert, 1990). Because most Americans received private coverage through employment, these events reduced private health insurance coverage during the first half of the 1980s. The proportion of Americans with private coverage reached a low of 70.9 percent in the 1985 CPS.

From 1988 through 1991, the number of persons with private coverage remained fairly stable (using data including cover sheet children), despite population growth of 3.2 percent. This produced a decline of 2.3 percentage points in the share of Americans with private coverage. In the 1991 CPS alone, the portion of the population with private coverage fell 1.4 percentage points—amounting to a loss in coverage for 3.3 million persons who would have received coverage had the share remained stable. Based on the 1991 CPS, the current recession appeared to have a similar impact on private health insurance coverage as it did in the early 1980s. The extent of the impact will be more fully reported in the 1992 CPS.

In these tabulations, we report public program coverage defined as coverage through Medicare, Medicaid, or military and veterans' programs. From 1980 through 1982, public program coverage increased, coinciding with the recession in the early 1980s that fostered rising unemployment and loss of private employer-sponsored coverage. Throughout the middle of the decade, public programs covered a stable portion of the population—from 22.5 to 22.9 percent. The

1991 CPS reports a larger proportion of the population covered by public programs than ever before. The share increased 1.2 percentage points from 1990 through 1991 (including cover sheet children), because of major expansions in the Medicaid program.

During the 1980-91 period, the number of uninsured persons grew by 30 percent (excluding cover sheet children), while the population grew only 11.5 percent. For 1988 through 1991 alone, the number of uninsured increased 11.9 percent (including cover sheet children), compared with population growth of 3.2 percent. In 1991, 13.9 percent of the population lacked any form of public or private coverage, 1 percentage point more than in 1988 (including cover sheet children).

In summary, the past 12 years of CPS data depict gradual changes in the health insurance structure in this Nation. Although the number of persons covered by private health insurance increased, it increased more slowly than the population. Public programs, particularly Medicare and Medicaid, covered an increasing proportion of the population but failed to offset the decline in the population share covered from private sources. This resulted in a rising proportion of the population without health insurance coverage, a proportion that rose 2.2 percentage points over the last 12 years (excluding cover sheet children) and 1.0 percentage point in the last 4 years (including cover sheet children).

Coverage for aged and non-aged

The aged (persons 65 years of age or over) and non-aged populations have distinctly different sources of health insurance coverage. The non-aged population traditionally received coverage through private health insurance (73.8 percent in the 1991 CPS, including cover sheet children), while public programs provided only a small portion (14.6 percent) of coverage (derived from Table 2). Only 4.2 percent of the non-aged population received coverage from both public and private sources in the 1991 CPS, mostly through private health insurance in combination with CHAMPUS (Civilian Health and Medical Program of the Uniformed Services) or Medicaid. Most of the uninsured population are non-aged because Medicare almost universally covers the aged.

For the aged population, health insurance coverage was obtained predominantly through a combination of public and private programs, with 96.0 percent reporting coverage by public programs. In the 1991 CPS, 65.3 percent of the aged had both public and private coverage; of these, almost all had Medicare supplemented by a private health insurance policy. Public programs alone (usually Medicare alone or in combination with other public programs such as Medicaid) covered 30.7 percent of the aged population (Table 3). Less than 1 percent of all persons age 65 years or over could not identify any form of health insurance coverage on the CPS.

Citing the same caveats as for Table 1 that minimize the trends, the 1980-91 surveys record a distinct loss in the share of the non-aged population covered by private

Table 2

Percent distribution of aged and non-aged insured persons, by source of insurance and percent of persons uninsured: United States, 1980-91

Survey year	Population ¹ in thousands	Percent distribution of persons insured by				Percent of persons uninsured
		All sources	Private health insurance only	Public programs only	Private insurance and public programs	
Non-aged ² persons including cover sheet children ³						
1991	218,793	84.3	69.6	10.4	4.2	15.7
1990	216,625	84.7	71.3	9.2	4.2	15.3
1989	214,663	84.9	71.4	9.4	4.2	15.1
1988	212,700	85.8	72.0	9.4	4.2	14.4
Non-aged ² persons excluding cover sheet children ³						
1991	218,793	82.0	68.2	10.5	3.3	18.0
1990	216,625	82.6	69.9	9.5	3.2	17.4
1989	214,663	83.0	70.1	9.7	3.2	17.0
1988	212,700	83.8	70.8	9.7	3.3	16.2
1987	210,814	82.4	69.3	9.7	3.4	17.6
1986	209,427	82.4	69.2	9.8	3.4	17.6
1985	207,248	82.2	69.1	9.7	3.4	17.8
1984	205,561	83.0	69.9	9.7	3.3	17.0
1983	203,849	84.0	70.7	9.6	3.7	16.0
1982	202,143	84.8	71.1	9.3	4.4	15.2
1981	200,556	NA	NA	NA	NA	NA
1980	198,966	85.1	72.7	8.7	3.7	14.9
Persons 65 years of age or over						
1991	30,093	99.1	3.1	30.7	65.3	0.9
1990	29,566	99.0	3.1	31.3	64.5	1.0
1989	29,022	99.1	3.2	30.7	65.2	0.9
1988	28,487	98.9	2.6	28.3	68.0	1.1
1987	27,975	98.9	2.4	37.6	58.9	1.1
1986	27,322	99.0	2.3	38.3	58.4	1.0
1985	26,818	99.0	2.6	40.2	56.2	1.0
1984	26,291	98.9	2.6	40.1	56.2	1.1
1983	25,738	98.7	2.6	42.9	53.3	1.3
1982	25,231	98.9	2.4	44.8	51.7	1.1
1981	24,886	NA	NA	NA	NA	NA
1980	24,194	96.6	4.7	44.1	47.7	3.4

¹Civilian non-institutionalized population in the United States and military personnel living outside military bases or on military bases with their families.

²Persons 0-64 years of age.

³In the 1988-91 surveys, additional questions concerning health insurance status of children were asked. This set of questions is referred to as "cover sheet" questions. Responses to these questions resulted in additional children being assigned health insurance coverage.

NOTES: Public programs indicate coverage by Medicare, Medicaid, and/or CHAMPUS. NA indicates that comparable statistics are not available.

SOURCE: U.S. Bureau of the Census: *Current Population Survey, 1980-91*; tabulations prepared by Fu Associates, Ltd., for the Health Care Financing Administration, Office of the Actuary.

health insurance. Public programs picked up some of this loss over the time span, but not enough to prevent the growth of the share of the non-aged population without any coverage. The share of the non-aged population without coverage increased by 2.7 percentage points (excluding cover sheet children) from 1980 to 1987 and by 1.3 percentage points (including cover sheet children) from 1988 to 1991.

For the aged population, the 1982¹ through 1991 CPS results showed little change in the share of the population insured and uninsured. Virtually all elderly persons received coverage through Medicare. The proportion of aged persons supplementing their Medicare coverage with independently purchased

private health insurance also appeared to grow from the 1980 through 1987 CPS years. This proportion has remained stable for 1989-91.

In the 1991 CPS, 13.2 percent of the population was covered by more than one type of insurance, that is, by private insurance, Medicare, Medicaid, or CHAMPUS (derived from Table 3). Multiple coverage was more prevalent for the elderly, with 73.4 percent of that cohort receiving coverage from two or more of these sources. For the non-elderly population, only 4.9 percent received coverage from more than one source, usually private health insurance in combination with CHAMPUS or Medicaid. Elderly persons had Medicare and private health insurance coverage most often (61.5 percent of this population), followed by Medicare and Medicaid (6.6 percent of the population). (Most persons covered by Medicare and Medicaid are institutionalized and therefore are not included in the CPS.)

¹1980 data are not used because the CPS Medicare population increased by almost twice the number of persons from 1980 to 1982 as indicated by program data. Part of the explanation for this difference may be linked to changes in the weighting process in the 1982 CPS. These changes included the introduction of independent race category controls and of the 1980 census population weights.

Table 3

**Number and percent distribution of persons covered by insurance, by age and type of coverage:
United States, 1991**

Type of insurance coverage	Age of insured person		
	Total	0-64 years of age	65 years of age or over
	Persons in thousands		
Total	248,886	218,793	30,093
Total insured	214,167	184,351	29,816
Private only	153,202	152,284	918
Public only	32,031	22,781	9,250
Medicare only	7,781	1,048	6,733
Medicaid only	16,743	16,723	20
CHAMPUS only	3,577	3,532	44
Medicare and Medicaid	3,019	1,035	1,985
Medicare and CHAMPUS	510	103	408
Medicaid and CHAMPUS	312	312	0
Medicare, Medicaid, and CHAMPUS	89	28	61
Private and public	28,933	9,285	19,648
Private and Medicare	19,543	1,027	18,516
Private and Medicaid	3,316	3,314	2
Private and CHAMPUS	4,650	4,613	37
Private, Medicaid, and Medicare	640	148	492
Private, Medicaid, and CHAMPUS	106	106	0
Private, Medicare, and CHAMPUS	644	65	578
Private, Medicare, Medicaid, and CHAMPUS	34	11	23
Total uninsured	34,719	34,443	276
	Percent distribution		
Total	100.0	100.0	100.0
Total insured	86.1	84.3	99.1
Private only	61.6	69.6	3.1
Public only	12.9	10.4	30.7
Medicare only	3.1	0.5	22.4
Medicaid only	6.7	7.6	0.1
CHAMPUS only	1.4	1.6	0.1
Medicare and Medicaid	1.2	0.5	6.6
Medicare and CHAMPUS	0.2	0.0	1.4
Medicaid and CHAMPUS	0.1	0.1	0.0
Medicare, Medicaid, and CHAMPUS	0.0	0.0	0.2
Private and public	11.6	4.2	65.3
Private and Medicare	7.9	0.5	61.5
Private and Medicaid	1.3	1.5	0.0
Private and CHAMPUS	1.9	2.1	0.1
Private, Medicaid, and Medicare	0.3	0.1	1.6
Private, Medicaid, and CHAMPUS	0.0	0.0	0.0
Private, Medicare, and CHAMPUS	0.3	0.0	1.9
Private, Medicare, Medicaid, and CHAMPUS	0.0	0.0	0.1
Total uninsured	13.9	15.7	0.9
Privately insured	73.2	73.8	68.3
Insured by Medicare	13.0	1.6	95.7
Insured by Medicaid	9.7	9.9	8.6
Insured by CHAMPUS	4.0	4.0	3.8

NOTE: CHAMPUS is Civilian Health and Medical Program of the Uniformed Services and includes other programs covering current and former military personnel and their dependents.

SOURCE: U.S. Bureau of the Census: *Current Population Survey, 1991*; tabulations prepared by Fu Associates, Ltd., for the Health Care Financing Administration, Office of the Actuary.

Employer-sponsored private health insurance

The main purpose of the CPS is to address, on a monthly basis, questions on employment and unemployment. Throughout the CPS years, the most consistently reported statistics were related to health insurance policy ownership of workers, that is, persons age 15 years or over who worked during the prior year. In the 1991 CPS, employers provided health insurance to 55.8 percent of the population, 28.2 percent being

workers and 27.5 percent being dependents.

From 1980 through 1991, there was a small downward trend in the percent of the population covered by employer-sponsored policies (Table 4). Using 1980-91 data excluding cover sheet children, the number of workers owning private health insurance policies rose by 3.6 million persons; the number of covered dependents fell by 2.1 million. The net effect was a 1.5-million increase in the number of people covered by employer-sponsored plans. During this 12-year period, employer coverage of workers and

Table 4

Number and percent distribution of workers and their dependents with employer-sponsored health insurance coverage: United States, 1980-91

Survey year	Population ¹ in thousands	Workers ² in thousands	Number in thousands covered by employer-sponsored health insurance		
			Total covered	Policy owners	Covered dependents ³
Number including cover sheet children ⁴					
1991	248,886	134,325	138,797	70,251	68,546
1990	246,191	132,730	140,518	70,923	69,595
1989	243,685	131,370	139,926	70,221	69,705
1988	241,187	129,181	139,147	69,254	69,893
Number excluding cover sheet children ⁴					
1991	248,886	134,325	136,691	70,251	66,441
1990	246,191	132,730	138,354	70,923	67,431
1989	243,685	131,370	137,936	70,221	67,715
1988	241,187	129,181	137,410	69,254	68,156
1987	238,789	126,714	138,510	71,749	66,761
1985	234,066	122,109	134,257	68,576	65,681
1980	223,160	116,231	135,157	66,640	68,517
Percent distribution including cover sheet children ⁴					
1991	100.0	54.0	55.8	28.2	27.5
1990	100.0	53.9	57.1	28.8	28.3
1989	100.0	53.9	57.4	28.8	28.6
1988	100.0	53.6	57.7	28.7	29.0
Percent distribution excluding cover sheet children ⁴					
1991	100.0	54.0	54.9	28.2	26.7
1990	100.0	53.9	56.2	28.8	27.4
1989	100.0	53.9	56.6	28.8	27.8
1988	100.0	53.6	57.0	28.7	28.3
1987	100.0	53.1	58.0	30.0	28.0
1985	100.0	52.2	57.4	29.3	28.1
1980	100.0	52.1	60.6	29.9	30.7
Cumulative growth including cover sheet children ⁴					
1988-91	3.2	4.0	-0.3	1.4	-1.9
Cumulative growth excluding cover sheet children ⁴					
1980-91	11.5	15.6	1.1	5.4	-3.0

¹Civilian non-institutionalized population in the United States and military personnel living outside military bases or on military bases with their families.

²Persons who worked during the previous year. Includes approximately 0.4 percent of workers who worked without pay.

³Does not include policy owners. Does not include persons covered as dependents of non-working employer plan owners.

⁴In the 1988-91 surveys, additional questions covering health insurance status of children were asked. This set of questions is referred to as "cover sheet" questions. Responses to these questions resulted in additional children being assigned health insurance coverage.

SOURCE: U.S. Bureau of the Census: *Current Population Survey, 1980-91*; tabulations prepared by Fu Associates, Ltd., for the Health Care Financing Administration, Office of the Actuary.

dependents grew only 1.1 percent, but the number of workers rose 15.6 percent, and the population increased 11.5 percent. In other words, employers, who have been responsible for providing health insurance to the non-aged population, supplied a smaller share of insurance coverage to the population in 1991 than in 1980. If employers had supplied the same proportion of the population with insurance in 1991 as they did in 1980, an additional 12 million persons, potentially equivalent to one-third of the total number of uninsured, would have received insurance through this source.

Coverage by industry

1991 CPS data show a distinct difference among industries in the percentage of workers owning employer-sponsored health insurance. At one extreme, industries such as mining, manufacturing, and transportation, communications, and public utilities provided coverage to 73.4-79.5 percent of their work

force (Table 5). At the low end, agriculture, forestry, and fisheries; construction; retail trade; business and personal services; and the self-employed (in unincorporated businesses) were more modest in their work force coverage, at 17.7 to 44.8 percent. The degree of unionization and the prevalence of low-paying or part-time jobs determine, in part, the penetration of insurance coverage by industry.

In 1980-91, the proportion of workers owning health insurance through their employers declined from 57.3 to 52.3 percent.² All industries except business and professional services and the self-employed contributed

²A discontinuity in the times series exists in that respondents to the 1988 and later CPSs could only report coverage by a single policy. Persons with multiple coverages (medical coverage as a dependent spouse and dental coverage as an owner of an employer-sponsored policy) would only report coverage by a single policy, most likely the one providing their primary care. This change probably accounted for much of the 3-percentage-point drop in the percentage of workers covered from 1987 to 1988.

Table 5
Number and percent of workers owning employer-sponsored health insurance coverage,
by industry providing policy: United States, 1980-91

Survey year	Industry ¹ providing policy to own workers												
	Total ²	Agriculture, forestry, and fisheries	Mining	Construction	Manufacturing	Transportation, communication, and public utilities	Wholesale trade	Retail trade	Finance, insurance, and real estate	Business and personal services	Professional services	Government	Self-employed, unincorporated
Thousands													
1991	70,251	479	681	3,011	16,697	4,909	3,159	7,127	4,906	4,745	8,814	13,823	1,881
1990	70,923	520	578	3,247	16,993	4,905	2,977	7,348	5,082	4,937	8,590	13,833	1,890
1989	70,221	488	619	3,171	17,271	4,888	3,021	7,136	5,237	4,507	8,347	13,537	1,970
1988	69,254	476	629	3,068	17,045	4,896	3,096	7,313	5,142	4,272	8,057	13,346	1,853
1987	71,749	507	796	3,326	17,944	4,850	3,266	7,944	4,936	4,625	8,452	13,468	1,607
1986	70,478	531	898	3,277	18,223	4,951	3,217	7,537	4,891	4,195	8,137	13,167	1,422
1985	68,576	518	834	3,104	18,213	4,775	3,089	7,210	4,679	3,948	7,601	13,116	1,444
1984	67,809	510	855	3,177	17,856	4,851	3,115	7,266	4,619	3,752	7,243	13,091	1,439
1983	67,623	541	1,022	3,074	18,657	4,688	3,256	6,939	4,340	3,636	7,285	12,672	1,457
1982	68,575	493	1,015	3,170	19,427	4,762	3,282	7,222	4,286	3,403	6,934	12,916	1,590
1981	68,090	445	888	3,232	19,812	4,726	3,043	7,137	4,186	3,434	6,500	13,056	1,550
1980	66,640	528	763	3,213	19,783	4,663	2,800	7,175	3,896	3,029	6,324	12,960	1,422
Percent of total industry workers													
1991	52.3	20.8	79.5	44.8	74.8	73.4	65.6	32.1	65.3	36.9	54.1	66.6	17.7
1990	53.4	21.9	79.3	47.1	75.2	74.4	64.2	33.6	64.8	38.3	54.3	69.6	18.5
1989	53.5	20.3	76.1	47.0	75.5	74.8	67.6	32.7	68.0	35.8	54.0	69.4	19.8
1988	53.6	20.0	81.8	47.8	76.0	74.2	67.1	33.9	66.5	35.1	54.4	69.7	18.4
1987	56.6	21.2	82.0	51.4	79.6	77.2	71.2	38.0	69.6	38.3	57.9	71.8	16.9
1986	56.6	23.1	82.1	52.1	80.5	78.4	70.9	36.9	70.8	35.9	58.4	71.1	15.4
1985	56.2	22.7	78.3	50.0	79.8	77.6	69.8	36.7	69.2	35.4	57.4	71.1	15.7
1984	57.2	21.5	84.1	54.0	80.9	79.7	71.4	38.3	72.1	35.9	57.0	71.0	15.6
1983	57.7	23.0	83.4	56.6	82.4	80.5	72.3	37.9	71.8	35.6	56.9	71.1	15.9
1982	58.2	21.9	84.1	56.6	82.0	82.0	71.4	38.8	70.1	35.8	56.5	70.6	17.7
1981	58.3	21.7	84.3	58.3	81.5	81.1	74.5	38.6	69.3	37.0	54.5	69.6	18.1
1980	57.3	24.7	85.0	55.2	80.7	81.3	71.5	38.6	67.5	34.9	54.2	69.1	16.2
Difference in percent of workers covered													
1980-91	-5.0	-3.9	-5.5	-10.4	-5.9	-7.9	-5.9	-6.5	-2.2	2.1	-0.1	-2.5	1.5

¹Industry in which individual held job for the longest period during year prior to the survey.

²Total includes approximately 0.04 percent of employer-sponsored policy owners not counted by industry who work without pay.

SOURCE: U.S. Bureau of the Census: *Current Population Survey*, 1980-91; tabulations prepared by Fu Associates, Ltd., for the Health Care Financing Administration, Office of the Actuary.

to this decline. (These two industries were already among the lowest industries in 1980 in percent of industry workers owning employer-sponsored policies.)

Although the exact reasons for this decline are unknown, we can speculate on causes. First, as the cost of health insurance rose, many employers who previously provided free coverage to workers initiated premium cost sharing. Households where both spouses worked and owned policies may have chosen to drop one policy, particularly if the remaining policy covered other dependents. This situation allows the worker dropping coverage to be picked up at no additional cost under the spouse's plan. Second, other workers in low-paying jobs could not afford required premiums or chose to bear the financial risk themselves rather than pay even a small premium. Third, as already mentioned, the distribution of workers shifted away from industries that provided coverage to a large proportion of their workers toward industries that covered a smaller proportion.

To illustrate the industry shift effects, if the percent distribution of workers in 1991 had been identical to that in 1980, then 1.4 million additional workers would have been covered by their employers in 1991 than actually were. If the 1988 percent of workers owning coverage in each industry were also used, 3.2 million additional workers would have been covered. These examples illustrate the effect of industry shifts alone, and of industry shifts in combination with the decline in the percentage of workers owning coverage from their own employers. These shifts together produced a 4.5-percent reduction in the number of workers owning employer-sponsored coverage from 1988 through 1991.

Workers who are not owners of their own employer-sponsored policies may be covered as dependents under a spouse's employer-sponsored plan. This occurs most frequently when a policy provided to one spouse contains richer benefits, is made available at lower cost, or contains specific benefits desired by the household. In other cases, one spouse may work part time, and, although a worker, may not qualify for participation in the employer-sponsored plan, or may qualify, but have to pay a large portion of the premium.

In either of these cases, policies provided by one industry subsidize worker benefits in another industry. The cross-subsidization among industries increases the expenses of the policy-supplying industry and reduces them for the non-policy-supplying industry. These cross-subsidizations affect an industry's expenses, prices charged for its services and products, and potentially its ability to compete in the marketplace.

The easiest way to examine these effects by industry is to calculate the percentage of industry workers with employer-sponsored health insurance from their own employer as a share of industry workers with any employer-sponsored coverage, regardless of source. In the 1991 CPS, industries in aggregate supplied 75.5 percent of employer-sponsored coverage to workers through their own policies (Table 6). The remaining 24.5 percent of workers received employer-sponsored coverage as a dependent through someone else's policy. Eight out of 12 industries approximate or

exceed the U.S. average in the percent of workers covered by employer-sponsored policies in their own industries. Three industries (agriculture, forestry, and fisheries; retail trade; and business and personal services) and the self-employed provided a substantially smaller proportion of coverage to their own workers than the U.S. average. In essence, the workers in the latter four industries were being subsidized for health insurance benefits by the remaining industries.

Some policymakers have proposed that all industries be required to provide health insurance benefits to their own workers who work more than 17 hours per week. This proposal would increase industry expenses associated with employee compensation in some industries and reduce it in others. Some have suggested that such proposals would force employers in industries providing a disproportionately small share of employer-sponsored coverage to reduce their number of workers in order to maintain expense levels and ability to compete. Some speculate that these employers could be forced out of business because they could not cover this additional expense without raising product or service prices, which could affect their competitiveness.

Coverage by firm size

Table 7 describes the work force with employer-sponsored health insurance by size of firm as reported in the 1991 CPS. The work force can be divided roughly into thirds by size of firm: 30.6 percent work in firms with fewer than 25 workers; 32.0 percent work in firms with 25 to 999 workers; and 37.4 percent work in firms with 1,000 or more workers.

Workers in the smallest firms were least likely to own coverage from their employer. In companies with fewer than 25 employees, only 26.8 percent were covered

Table 6
Percent of workers with employer-sponsored health insurance from own employer as a share of workers with employer-sponsored coverage¹ from any source, by industry: United States: 1991

Industry of employment ²	Percent
Total	75.5
Agriculture, forestry, and fisheries	52.6
Mining	93.5
Construction	76.1
Manufacturing	90.0
Transportation, communication, and public utilities	90.5
Wholesale trade	83.0
Retail trade	55.0
Finance, insurance, and real estate	79.8
Business and personal services	64.2
Professional services	72.2
Government	84.1
Self-employed, unincorporated	42.8

¹Includes employees with coverage as a dependent through someone else's employer-based plan.

²Industry in which individual held job for the longest period during year prior to the survey.

SOURCE: U.S. Bureau of the Census: *Current Population Survey, 1980-91*; tabulations prepared by Fu Associates, Ltd., for the Health Care Financing Administration, Office of the Actuary.

Table 7
Number and percent workers owning employer-sponsored health insurance, by size of firm:
United States, 1991

Statistic	Number of workers at firm ¹					
	Total	Fewer than 25	25-99	100-499	500-599	1,000 or more
Number of workers (in thousands)	134,325	41,059	17,206	18,697	7,145	50,219
Percent distribution	100.0	30.6	12.8	13.9	5.3	37.4
Percent of workers owning employer-sponsored policies	52.3	26.8	51.8	63.0	67.3	67.2
Percent of workers with any insurance coverage	84.7	75.5	81.3	87.9	90.8	91.4
Percent uninsured	15.3	24.5	18.7	12.1	9.2	8.6

¹Number of people working at the same location as the survey respondent.

SOURCE: U.S. Bureau of the Census: *Current Population Survey, 1991*; tabulations prepared by Fu Associates, Ltd., for the Health Care Financing Administration, Office of the Actuary.

directly. However, another 48.7 percent of workers found health insurance through some other source—either as a dependent under someone else's employer-sponsored plan, as an owner or dependent under an individually purchased plan, or under a public program such as Medicaid. In the largest firms, 67.2 percent of workers were covered by their own employer-sponsored plan, and another 24.2 percent obtained coverage from another source. The prevalence of coverage in the largest firms produced the lowest percentage of uninsured workers—8.6 percent in firms with 1,000 or more, compared with 24.5 percent in firms with fewer than 25 workers. Although not directly reported, Table 7 hints at the cross-subsidization in health insurance of small firms by large ones.

The likelihood of having insurance coverage by size of firm and by industrial sector is closely linked. Industries such as retail trade and services, where the percent of workers covered through employer policies is slight, were usually dominated by firms with fewer than 25 workers. Similarly, industries such as manufacturing and transportation, communications, and public utilities, where the penetration of employer-sponsored policies is more extensive, also tend to be large firms.

Employer-sponsored coverage of non-workers

In addition to coverage of workers through employer-sponsored plans, non-workers may obtain coverage through a former employer. Non-working respondents to the CPS had the opportunity to respond to questions concerning employer-sponsored policy ownership beginning in 1988.

In the 1988 through 1991 CPS, slightly less than 5 percent of the population received coverage as non-workers or as dependents of non-workers through employer-sponsored plans (Table 8). Of the non-working plan owners, 9 out of every 10 were age 55 years or over, indicating strongly that these policies predominantly cover retirees. Less than 10 percent were persons under 55 years of age, some of whom were persons retiring early with disabilities. Non-workers may have also been eligible for continuation of health insurance benefits through provisions of the Consolidated Omnibus Budget Reconciliation Act of 1985, which require employers to provide access to insurance coverage to former workers and their

dependents for a limited period of time after separation from a job.

Individually purchased private coverage

Private health insurance may also be purchased by households or individuals directly from insurers. These individually purchased (rather than employer-sponsored group-purchased) policies declined as a source of coverage from 1980 to 1991 (Table 9). Questionnaire changes after 1987 produced a substantial discontinuity in the CPS time series, as coverage of retirees with employer-sponsored policies was captured appropriately rather than under individually purchased policies.³

The percentage of the population with privately purchased plans declined from 1980 to 1987 (from 18.2 percent to 16.6 percent) and from 1988 to 1991 (from 12.7 percent to 9.9 percent, excluding cover sheet children and from 13.8 to 13.1 percent, including cover sheet children).

The likely cause of this decline was rising premiums charged for these policies. Several factors unique to the individual health insurance market drive up premium costs above levels charged to groups:

- Higher marketing and underwriting costs that cannot be spread across a group.
- Almost complete lack of managed care or utilization review options within individually purchased plans.
- Reimbursement practices that pay benefits based on charges (individually purchased policies seldom can take advantage of negotiated lower rates with providers or of paying only usual and customary charges) (Gabel, 1991).

Higher premium costs made these policies less affordable over time for workers in small firms who do not have access to employer-sponsored coverage or who are otherwise uninsured.

More than one-half of all persons owning individually purchased policies are 65 years of age or over. In the 1991 CPS, 32 percent of the elderly had

³Prior to 1988, only current workers were asked about employer-sponsored coverage. Retirees and new job entrants could not specify employer-sponsored coverage source and were counted as individually purchased (an "other" policy) instead.

Table 8

Number and percent of civilian non-workers and dependents with employer-sponsored health insurance, by age: United States, 1988-91

Survey year	Civilian population in thousands	Persons with employer-sponsored insurance coverage in thousands					
		Policy owners					Covered dependents
		Total	Total	Age under 55 years	Age 55 to 64 years	Age 65 years or over	
1991	248,886	11,611	7,559	633	1,624	5,302	4,052
1990	246,191	11,352	7,328	652	1,649	5,027	4,024
1989	243,685	11,416	7,299	725	1,728	4,845	4,117
1988	241,187	10,974	7,003	611	1,754	4,637	3,972
Percent of civilian population							
1991	100.0	4.7	3.0	0.3	0.7	2.1	1.6
1990	100.0	4.6	3.0	0.3	0.7	2.0	1.6
1989	100.0	4.7	3.0	0.3	0.7	2.0	1.7
1988	100.0	4.6	2.9	0.3	0.7	1.9	1.6

NOTE: Non-workers are persons who did not work in the year prior to the survey.

SOURCE: U.S. Bureau of the Census: *Current Population Survey, 1980-91*; tabulations prepared by Fu Associates, Ltd., for the Health Care Financing Administration, Office of the Actuary.

coverage from this source. These policies typically supplemented coverage under Medicare. Another 12 percent of individual policy owners were age 55 to 64 years, with 11 percent of persons in this age group owning policies. Persons 19-54 years of age owned 33 percent of all individually purchased policies. In general, 4-5 percent of persons in the 19-54 age group owned these policies.

Family income by age group

The ability to afford private health insurance is closely related to income. Those who cannot afford or choose not to purchase insurance privately may be eligible for coverage under public programs or may remain uninsured. For the non-elderly, the relationship of income and insurance is direct: People living at low income levels are more likely than persons of higher income to rely on Medicaid or to be uninsured. We compare family incomes with the Federal poverty threshold in this article, with poverty threshold determined by the size and composition of the family. For a family of four with two adults under age 65 and two children under 18 years, the poverty threshold was \$13,254 in calendar year 1990.

From 1980 to 1991, the proportion of the population under 65 years of age living in poverty increased from 11.4 percent to 13.8 percent (Figure 1, Table 10). In contrast, the share of non-aged living in families with incomes 2 to 2.99 times the poverty level declined more than 3 percentage points. This trend reversed in 1990-91, as the share grew almost 1 percentage point. The other two income classes remained essentially unchanged from 1980 through 1991.

Most of the growth in the proportion of the population under 65 years of age living in poverty occurred in the early 1980s, coinciding with the recession and high inflation of this period. In 1984, the share of the non-aged population living in poverty was at its highest, 15.5 percent. From 1984 to 1990, this share declined more than 2 percentage points, falling to 13.1 percent in 1990. In 1991, however, the proportion

Table 9
Number and percent of persons with individually purchased¹ health insurance coverage: United States, 1980-91

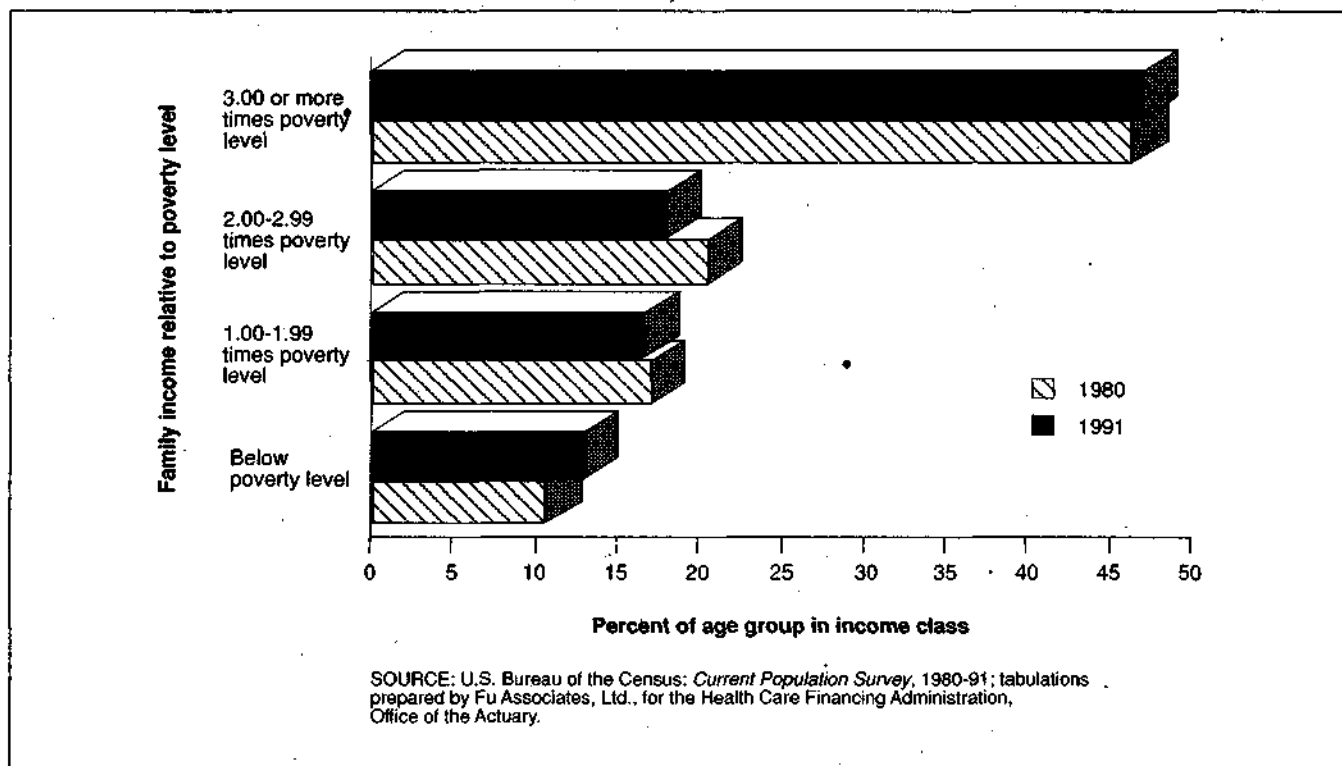
Survey year	Civilian population	Persons in thousands		
		Persons with individually purchased insurance coverage		
		Total	Owner	Covered dependent
Number including cover sheet children ²				
1991	248,886	32,596	17,592	15,005
1990	246,191	32,650	17,530	15,120
1989	243,685	31,783	17,532	14,251
1988	241,187	33,240	18,459	14,782
Number excluding cover sheet children ²				
1991	248,886	29,458	17,592	11,866
1990	246,191	29,397	17,530	11,866
1989	243,685	28,841	17,532	11,309
1988	241,187	30,521	18,459	12,062
1987	238,789	39,560	28,430	11,130
1985	234,066	39,941	27,914	12,027
1980	223,160	40,704	27,262	13,442
Percent including cover sheet children ²				
1991	100.0	13.1	7.1	6.0
1990	100.0	13.3	7.1	6.1
1989	100.0	13.0	7.2	5.8
1988	100.0	13.8	7.7	6.1
Percent excluding cover sheet children ²				
1991	100.0	9.9	5.9	4.0
1990	100.0	11.9	7.1	4.8
1989	100.0	11.8	7.2	4.6
1988	100.0	12.7	7.7	5.0
1987	100.0	16.6	11.9	4.7
1985	100.0	17.1	11.9	5.1
1980	100.0	18.2	12.2	6.0

¹Policies purchased directly from insurer, i.e., not sponsored through a current or former employer, but purchased by a household for an individual and/or dependents. Prior to 1988, employer-sponsored policies of non-workers were probably included as individually purchased policies.

²In the 1988-91 surveys, additional questions concerning health insurance status of children were asked. This set of questions is referred to as "cover sheet" questions. Responses to these questions resulted in additional children being assigned health insurance coverage.

SOURCE: U.S. Bureau of the Census: *Current Population Survey, 1980-91*; tabulations prepared by Fu Associates, Ltd., for the Health Care Financing Administration, Office of the Actuary.

Figure 1
Distribution of family income relative to the poverty level for the non-elderly:
United States, 1980 and 1991



of non-aged living in poverty increased to 13.8 percent, as a result of another recession.

For the elderly, CPS statistics indicated a migration of elderly from poorer to higher income categories (Figure 2). From 1980 through 1991, the percentage of the elderly living in families with incomes three or more times the poverty level has increased dramatically from 30.2 to 40.1 percent (Figure 3). The percentage of the elderly in each of the income classes below three times the poverty level have declined for the same time period. Income is not as important a factor for insurance coverage for the elderly, because Medicare covers virtually the entire population. Indeed, income does not substantially affect the ability of the elderly to access the health care system. Higher income does, however, make it easier for the elderly to supplement their Medicare coverage with private insurance and therefore potentially access higher quality and larger quantities of care.

The disparity among generations in income and insurance coverage grew over the past decade. The elderly population's income levels in relation to poverty rose in the 1980-91 surveys, and the likelihood of being uninsured was low regardless of income. For the non-elderly, however, income levels in relation to poverty fell and the likelihood of being uninsured increased.

Public health insurance

The 1991 CPS reports 61.0 million people, 1 in 4 individuals, were covered by some form of public health

insurance (Table 1). Public coverage included Medicare for the elderly and disabled populations; Medicaid for certain low-income persons; and insurance associated with current or past military service (shown in the tables as CHAMPUS.⁴ These publicly insured individuals may have been covered by more than one type of public insurance or by private insurance as well.

Medicaid

The 1991 CPS reported that the Medicaid program covered a total of 24.3 million people, or 9.7 percent of the non-institutionalized population, at some point during the year⁵ (Table 11). The Medicaid program does not provide medical assistance for all poor persons. States have broad discretion in determining, within Federal guidelines, which groups their Medicaid programs will cover and their financial criteria for Medicaid eligibility.

Reflecting its mission, Medicaid insured a larger percentage of children than any other age group. In the 1991 CPS, 60.8 percent of children under age 19 in families with incomes below the poverty level were covered by Medicaid (Table 12). However, children in families near poverty were not being protected by the Medicaid safety net as often as the poor. Children in the

⁴CPS includes in the sample members of the armed forces living with their families either on or off military installations.

⁵Additional people may meet eligibility requirements for Medicaid but have not sought coverage under the program.

Table 10

Percent distribution of persons by family income relative to the poverty level, by age:
United States, 1980-91

Survey year	Total population ¹ in thousands	Family income			
		Below poverty level ²	1.00-1.99 times poverty level	2.00-2.99 times poverty level	3.00 or more times poverty level
Age 0 to 64 years		Percent			
1991	218,793	13.8	17.6	19.1	49.5
1990	216,625	13.1	17.1	18.2	51.7
1989	214,663	13.2	17.3	18.4	51.0
1988	212,700	13.6	17.0	18.7	50.7
1987	210,814	13.8	17.7	19.3	49.1
1986	209,427	14.2	18.7	19.9	47.2
1985	207,248	14.8	18.9	20.3	46.0
1984	205,561	15.5	19.7	20.5	44.4
1983	203,849	15.1	20.3	21.2	43.3
1982	202,143	13.9	20.3	21.7	44.1
1981	200,556	12.8	19.3	22.2	45.7
1980	198,966	11.4	18.0	21.7	49.0
Age 65 years or over					
1991	30,093	12.2	27.0	20.8	40.1
1990	29,566	11.4	29.1	20.3	39.2
1989	29,022	12.0	28.4	20.8	38.8
1988	28,487	12.5	27.8	20.8	38.9
1987	27,975	12.4	28.4	21.1	38.1
1986	27,322	12.6	29.4	21.3	36.7
1985	26,818	12.4	30.2	20.6	36.8
1984	26,291	14.1	30.4	21.0	34.5
1983	25,738	14.6	31.4	20.8	33.2
1982	25,231	15.3	32.8	20.9	31.1
1981	24,686	15.7	33.5	20.8	30.0
1980	24,194	15.2	33.0	21.6	30.2

¹Civilian non-institutionalized population in the United States and military personnel living outside military bases or on military bases with their families.

²Includes persons in families with negative incomes.

SOURCE: U.S. Bureau of the Census: *Current Population Survey, 1980-91*; tabulations prepared by Fu Associates, Ltd., for the Health Care Financing Administration, Office of the Actuary.

near-poor income category were the most likely of all income groups to be uninsured: 27.1 percent were uninsured compared with 22.6 percent of children in families with incomes below the poverty level.

Data for the 19-44 age group are presented separately for males and females because low-income pregnant women are a Medicaid-targeted group. Although many more females than males age 19-44 live in families below the poverty level, the females were less likely to be uninsured. In 1991, 7.4 million females age 19-44 lived in families with incomes below the poverty level; 46.0 percent of these females were covered by Medicaid, 21.4 percent were covered by private insurance, and 33.1 were uninsured. For the same age bracket, only 4.5 million males lived below the poverty level. However, a much higher percentage of males in poverty were uninsured (54.5 percent), and a much lower percent were covered by Medicaid (19.6 percent). A similar percentage of males and females were covered by private insurance.

For all income levels combined, males in the 19-44 age group were more frequently uninsured (21.8 percent) than any other age group. Even 10.9 percent of those males in families with incomes three times the poverty level were uninsured. This may be an issue of choice for some of these males, rather than one of access. Some may be willing to risk incurring health care costs when they occur, rather than

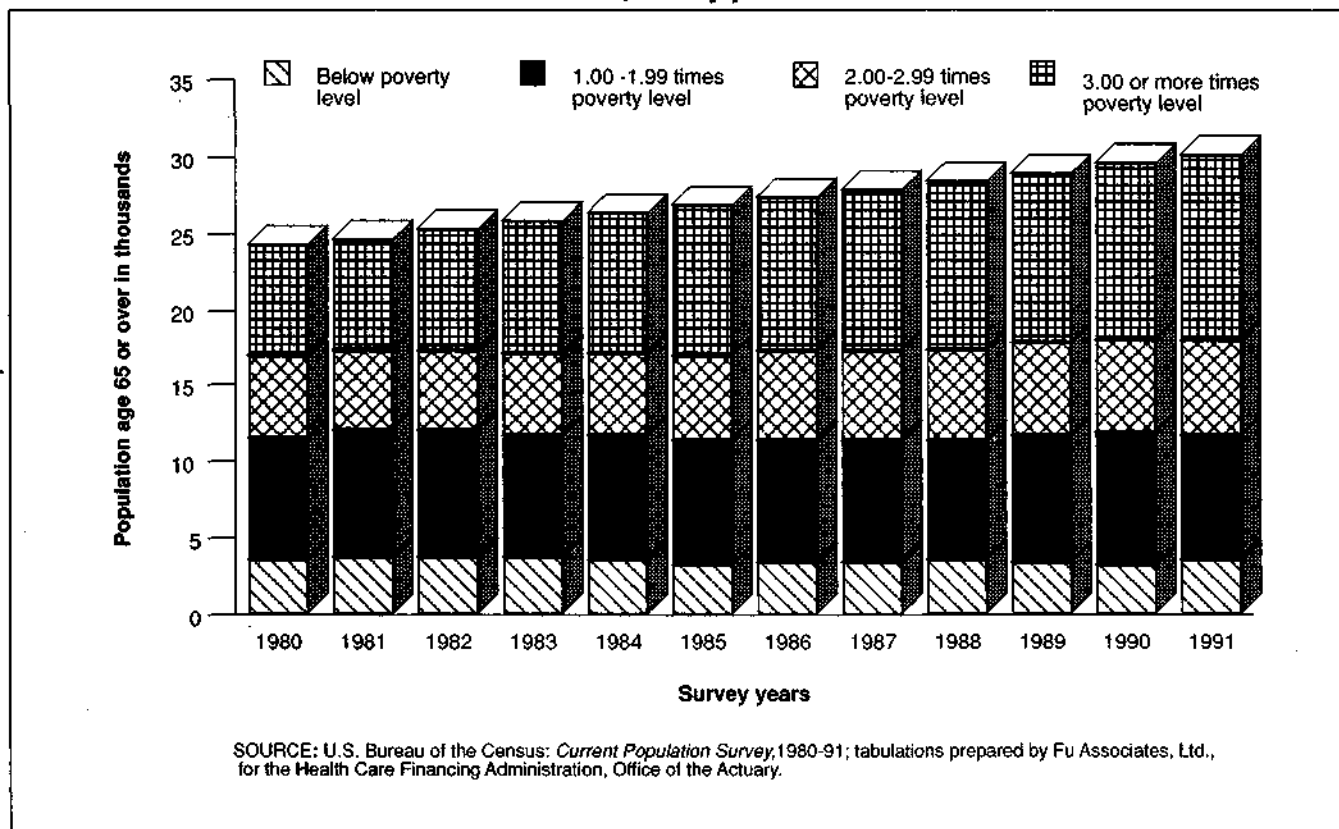
purchasing health insurance.

Males and females 45-64 years of age had the lowest proportion living in poverty (8.6 percent) and the highest share living in families with incomes more than three times the poverty level (63.0 percent). This age group was most frequently covered by private health insurance (79.3 percent). For those who were living in poverty, access to health care may have been a problem, as 36.4 percent were uninsured.

The last age group, persons 65 years of age or over, are almost universally covered by Medicare regardless of income. As income rises, more and more elderly purchase private health insurance to supplement Medicare coverage. Medicaid supplements Medicare coverage for many elderly individuals in the poor and near-poor income groups.

The number of people covered by the Medicaid program has increased rapidly in recent years. From the 1990 to the 1991 surveys, the number of people covered by Medicaid rose by more than 3 million (derived from Table 11). This was the largest 1-year increase seen in the last 12 years of CPS data. Medicaid program expansions, implemented as a result of recent legislation extending coverage to more children and pregnant women, accounted for some of this increase. Additional increases in Medicaid coverage resulted from the current recession. Rising unemployment caused many more people to fall into poverty. In addition, many

Figure 2
Number of elderly, by family income relative to the poverty level:
United States, survey years 1980-91



people lost their ability to independently purchase insurance coverage when they lost their jobs.

The growing Medicaid population is young. Of the 3.1 million increase in non-institutionalized persons covered by Medicaid from CPS 1990 to 1991, 64.0 percent were under age 19. The 1991 CPS showed 18.1 percent of children under age 19 covered by the Medicaid program. This share increased dramatically if only those children under age 6 were considered. Nearly one child in four under the age of 6 was covered by Medicaid in the 1991 CPS.

The shifting age distribution of the Medicaid non-institutionalized population has been taking place over the past decade. The elderly were the only age group to become less covered by Medicaid, while all age groups under age 65 became more likely to be covered by Medicaid. In 1980, 13.8 percent of the age group 65 years or over were covered by Medicaid; by 1991, this share had fallen to 8.6 percent. Children under age 19 were more likely to be covered by Medicaid in 1991 than in 1980. In 1980, 11.8 percent of the age group under 19 years was covered by Medicaid; this share rose to 15.3 percent of the Medicaid population in 1991, excluding cover sheet children. The share was higher when the more complete coverage, including cover sheet children, was calculated—18.1 percent. People age 18-65 years became slightly more likely to be covered by

Medicaid, but not by as much as the age group under 19 years.

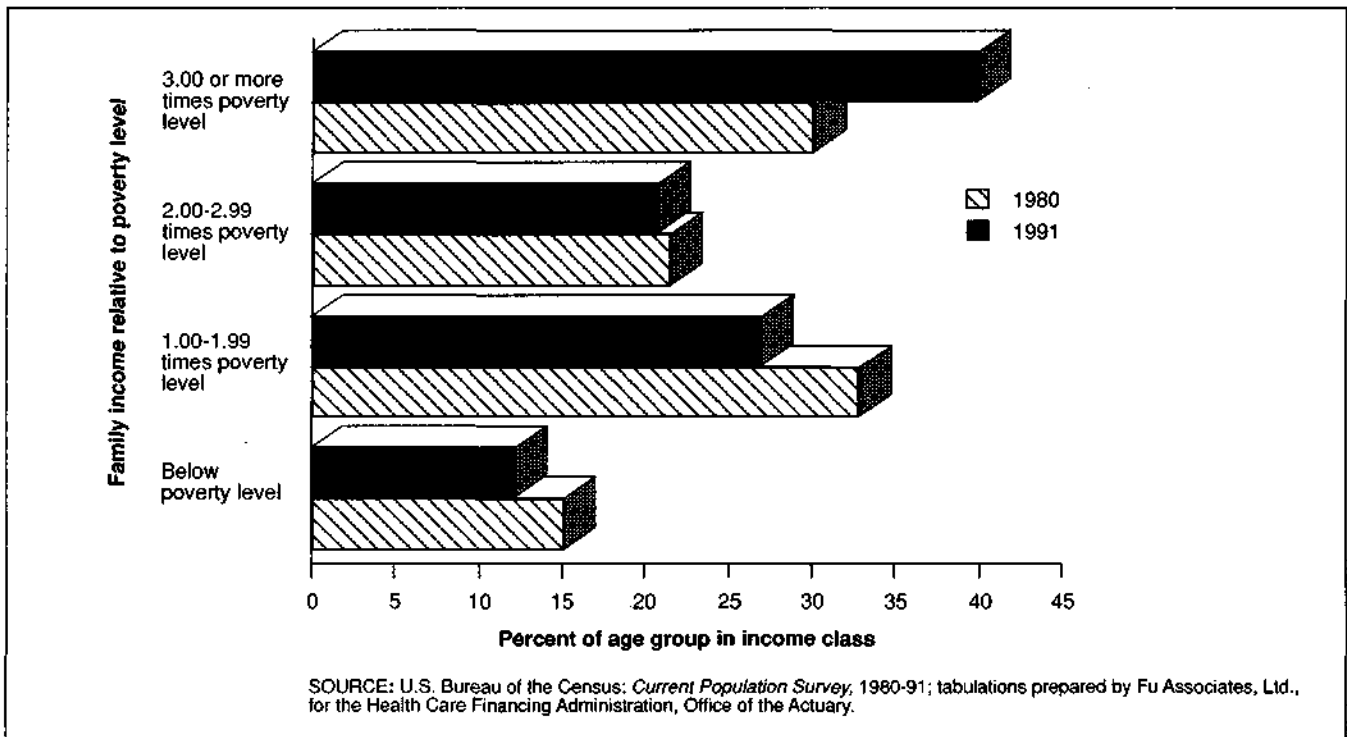
Medicaid is the sole source of health insurance coverage for most Medicaid beneficiaries. The 1991 CPS reported 69.0 percent of the Medicaid population was covered by Medicaid only (Table 3). An additional 15.6 percent of the Medicaid population was also covered under Medicare. For Medicaid beneficiaries who qualify for Medicare, the State Medicaid programs will usually pay beneficiaries' Medicare Part B premiums and their out-of-pocket costs for Medicare-covered services. Most of these so-called "dual-eligibles" also are eligible for any additional health care services offered by their State's Medicaid program.

The 1991 CPS showed that 16.9 percent of people covered by Medicaid also had private health insurance alone or in combination with other coverages. This category of people may or may not be covered by both types of health insurance simultaneously, a fact not discernable from CPS data.

Medicare

The Medicare program covers virtually all people age 65 or over. The 1991 CPS reported 95.7 percent of the elderly were covered by Medicare. Less than 1 percent of the elderly, or 0.3 million, were uninsured. The

Figure 3
Distribution of family income relative to the poverty level for the elderly:
United States, 1980 and 1991



uninsured elderly were spread across all income classes, with those below poverty the most likely to be uninsured. Elderly in or near poverty were frequently covered by Medicaid in addition to Medicare (Table 12).

A large number of elderly supplement their Medicare coverage with private health insurance plans, referred to as "medigap" policies, which pay required deductible and coinsurance amounts. Medicare is the secondary payer for Medicare enrollees covered by an employer group health plan through the enrollee's or spouse's current employer. However, the current CPS questionnaire does not distinguish if a working elderly person receives group health insurance from a current rather than a former employer, so it is not possible to determine from CPS data if Medicare is the secondary or primary payer.

In addition to the elderly, the Medicare program also provides health care services to certain disabled persons under age 65. When first implemented in 1966, Medicare was designed to protect people age 65 or over from the high cost of health care. Effective July 1, 1973, the program was expanded to cover permanently disabled workers eligible for old age, survivors, and disability insurance benefits, as well as people with end stage renal disease. The 1991 CPS reported a total of 32.3 million people covered by the Medicare program. Of these enrollees, 3.5 million, just over 10 percent, were under age 65. For the non-aged Medicare population, Medicare was the sole source of coverage for 30.2 percent; another 36.1 percent supplemented

their Medicare coverage with private health insurance alone or in combination with other public programs; 35.3 percent were covered by Medicare and Medicaid alone or in combination with other coverages; and 6.0 percent were covered by Medicare and CHAMPUS alone or in combination with other coverages (Table 3).

Comparisons to program data

CPS counts of people covered by the Medicare and Medicaid programs are reasonably consistent with Health Care Financing Administration (HCFA) program data after allowing for the institutional component missing from CPS. The 1988 CPS indicated 27.3 million people age 65 or over were covered by Medicare at any time during 1987 (Table 13).

Comparable Medicare program data show 29.4 million enrollees age 65 or over as of July 1, 1987, including the institutionalized population outside the scope of CPS. As of January 1, 1987, an estimated 1.4 million persons age 65 or over resided in nursing and personal care homes (Lair and Leftkowitz, 1990). Assuming that all people age 65 or over residing in these homes were Medicare enrollees, these aged institutionalized residents accounted for two-thirds of the difference between CPS and program data. The remaining difference may include persons who do not realize they have Medicare coverage because they opted not to pay Medicare Part B premiums for the supplementary medical insurance program. Over the 10-year period 1982-91, CPS counts of the Medicare population age

Table 11
Medicaid population,¹ by age group: United States, 1980-91

Survey year	Age in years				
	All ages	0 to 18	19 to 44	45 to 64	65 or over
	Number in thousands including cover sheet children ²				
1991	24,261	12,434	6,942	2,302	2,582
1990	21,185	10,466	5,981	2,161	2,576
1989	20,728	10,290	5,909	2,077	2,451
1988	20,211	10,021	5,919	1,883	2,387
	Number in thousands excluding cover sheet children ²				
1991	22,294	10,468	6,942	2,302	2,582
1990	19,590	8,871	5,981	2,161	2,576
1989	19,407	8,970	5,909	2,077	2,451
1988	18,986	8,796	5,919	1,883	2,387
1987	19,770	8,802	6,304	1,915	2,749
1985	19,422	8,482	6,081	2,014	2,845
1980	18,557	8,008	5,196	2,003	3,349
	Percent of Medicaid population including cover sheet children ²				
1991	100.0	51.3	28.6	9.5	10.6
1990	100.0	49.4	28.2	10.2	12.2
1989	100.0	49.6	28.5	10.0	11.8
1988	100.0	49.6	29.3	9.3	11.8
	Percent of Medicaid population excluding cover sheet children ²				
1991	100.0	47.0	31.1	10.3	11.6
1990	100.0	45.3	30.5	11.0	13.2
1989	100.0	46.2	30.4	10.7	12.6
1988	100.0	46.3	31.2	9.9	12.6
1987	100.0	44.5	31.9	9.7	13.9
1985	100.0	43.7	31.3	10.4	14.6
1980	100.0	43.2	28.0	10.8	18.0
	Percent of total population including cover sheet children ²				
1991	9.7	18.1	6.7	4.9	8.6
1990	8.6	15.4	5.9	4.6	8.7
1989	8.5	15.2	5.8	4.5	8.4
1988	8.4	14.9	5.9	4.1	8.4
	Percent of total population excluding cover sheet children ²				
1991	9.0	15.3	6.7	4.9	8.6
1990	8.0	13.1	5.9	4.6	8.7
1989	8.0	13.3	5.8	4.5	8.4
1988	7.9	13.1	5.9	4.1	8.4
1987	8.3	13.2	6.4	4.3	9.8
1985	8.3	12.8	6.3	4.5	10.6
1980	8.3	11.8	6.0	4.5	13.8

¹Civilian non-institutionalized population in the United States and military personnel living outside military bases or on military bases with their families.
²In the 1988-91 surveys, additional questions concerning health insurance status of children were asked. This set of questions is referred to as "cover sheet" questions. Responses to these questions resulted in additional children being assigned health insurance coverage.

SOURCE: U.S. Bureau of the Census: *Current Population Survey, 1980-91*; tabulations prepared by Fu Associates, Ltd., for the Health Care Financing Administration, Office of the Actuary.

65 or over grew at exactly the same average annual rate as program data on aged Medicare enrollees (1.9 percent).

Similarly, CPS counts of persons covered by the Medicaid program can be compared with HCFA program data. The 1991 CPS reported 24.3 million persons, including cover sheet children, covered by Medicaid during 1990. Comparable HCFA Medicaid program data indicate 25.3 million persons were recipients of Medicaid program services during fiscal year 1990. The difference between the CPS and HCFA program data can be attributed to factors: the institutionalized population not included in CPS and difficulties that surveys have capturing Medicaid recipients.

From 1980 to 1991, the CPS Medicaid population grew 20.0 percent, using CPS counts of Medicaid

population, excluding cover sheet children. Increases in CPS and Medicaid program counts are identical from 1980 through 1991: CPS shows 3.7 million more people covered by the Medicaid program, and program data identify the same increase in number of recipients.

The uninsured

Lack of insurance creates a financial barrier to health care in the United States. Compared with individuals with insurance, the uninsured are less likely to seek care and more likely to receive fewer services (Davis and Rowland, 1983).

Although CPS data on the uninsured are a frequently cited measure of the health care access problem, two caveats should be kept in mind. First, health care access is difficult to assess by simply counting the number of

Table 12

Percent distribution of selected population groups, by insurance status and by family income relative to the poverty level: United States, 1991

Family income	Total persons ¹ in thousands	Publicly insured			Privately insured
		Uninsured	Medicare	Medicaid	
Percent distribution of children under age 19					
Total all incomes	68,619	13.3	0.2	18.1	71.1
Below poverty level ²	14,156	22.6	0.3	60.8	21.6
1.00-1.49 times poverty level	7,339	27.1	0.3	24.4	54.0
1.50-1.99 times poverty level	7,446	19.1	0.1	10.6	73.4
2.00-2.49 times poverty level	7,655	11.2	0.1	6.1	84.7
2.50-2.99 times poverty level	6,848	8.5	0.2	3.9	88.9
3.00 or more times poverty level	25,175	4.3	0.0	2.0	94.2
Percent distribution of females age 19 to 44					
Total all incomes	52,196	15.8	1.1	9.7	73.7
Below poverty level ²	7,408	33.1	3.2	46.0	21.4
1.00-1.49 times poverty level	4,297	33.6	2.1	17.5	48.7
1.50-1.99 times poverty level	4,818	23.6	1.3	7.5	67.2
2.00-2.49 times poverty level	5,000	17.7	0.6	3.8	76.8
2.50-2.99 times poverty level	4,967	12.1	0.8	2.3	84.1
3.00 or more times poverty level	25,706	6.7	0.4	0.9	91.5
Percent distribution of males age 19 to 44					
Total all incomes	50,947	21.8	1.2	3.7	72.7
Below poverty level ²	4,543	54.5	4.2	19.6	24.2
1.00-1.49 times poverty level	4,053	45.6	2.6	8.8	42.7
1.50-1.99 times poverty level	4,521	32.7	1.6	4.6	59.5
2.00-2.49 times poverty level	4,881	25.4	0.9	2.3	69.5
2.50-2.99 times poverty level	5,211	19.7	1.1	2.1	76.1
3.00 or more times poverty level	27,738	10.9	0.5	0.8	87.1
Percent distribution of males and females age 45 to 64					
Total all incomes	47,031	12.7	4.6	4.9	79.3
Below poverty level ²	4,063	36.4	12.9	31.0	25.7
1.00-1.49 times poverty level	2,884	33.1	13.2	14.5	44.2
1.50-1.99 times poverty level	3,255	27.2	8.3	6.9	60.3
2.00-2.49 times poverty level	3,550	18.6	5.4	4.2	74.1
2.50-2.99 times poverty level	3,640	13.9	5.0	2.0	81.0
3.00 or more times poverty level	29,640	5.1	2.1	0.6	92.6
Percent distribution of males and females age 65 or over					
Total all incomes	30,093	0.9	95.7	8.6	68.3
Below poverty level ²	3,658	2.5	95.7	30.4	32.6
1.00-1.49 times poverty level	4,250	0.9	98.5	13.5	50.9
1.50-1.99 times poverty level	3,881	0.7	97.9	7.5	63.7
2.00-2.49 times poverty level	3,468	0.8	97.5	4.9	71.3
2.50-2.99 times poverty level	2,780	0.5	97.0	4.4	76.4
3.00 or more times poverty level	12,056	0.6	93.2	2.6	84.1
Percent distribution of all ages					
Total all incomes	248,886	13.9	13.0	9.7	73.2
Below poverty level ²	33,827	28.7	13.3	45.2	23.6
1.00-1.49 times poverty level	22,824	27.5	20.9	17.1	49.2
1.50-1.99 times poverty level	23,921	20.7	17.6	7.8	66.1
2.00-2.49 times poverty level	24,554	14.9	14.9	4.4	76.6
2.50-2.99 times poverty level	23,446	11.6	12.7	2.9	82.3
3.00 or more times poverty level	120,315	6.2	10.1	1.2	90.6

¹Civilian non-institutionalized population in the United States and military personnel living outside military bases or on military bases with their families.

²Includes persons in families with negative income.

NOTE: Columns are not additive or mutually exclusive, that is, not all types of coverage are shown and persons may have more than one type of coverage.

SOURCE: U.S. Bureau of the Census: Current Population Survey, 1991; tabulations prepared by Fu Associates, Ltd., for the Health Care Financing Administration, Office of the Actuary.

Table 13
Medicaid and aged Medicare populations, according to two sources:¹ United States, 1980-91

Year ³	Aged Medicare population by source		Medicaid population by source		
	CPS ²	Program data ⁴	CPS ² excluding cover sheet ⁵	CPS ² including cover sheet ⁵	Program data ⁶
Number in thousands					
1991	28,795	30,948	22,294	24,261	25,255
1990	28,251	30,409	19,590	21,185	23,511
1989	27,724	29,879	19,407	20,728	22,907
1988	27,333	29,380	18,986	20,211	23,109
1987	26,919	28,791	19,770	—	22,518
1986	26,320	28,176	19,281	—	21,808
1985	25,825	27,571	19,422	—	21,607
1984	25,264	27,109	19,307	—	21,554
1983	24,690	26,540	18,924	—	21,603
1982	24,299	26,011	19,459	—	21,980
1981	23,540	25,515	19,012	—	21,605
1980	22,149	24,948	18,557	—	21,521
Cumulative growth					
1988-91	5.3	5.3	17.4	20.0	9.3
1980-91	30.0	24.1	20.1	NA	17.4

¹The two sources are the *Current Population Survey (CPS)* and program data from the Health Care Financing Administration.

²Civilian non-institutionalized population in the United States and military personnel living outside military bases or on military bases with their families.

³For CPS, year refers to survey year; for program data, year refers to year indicated minus one, because CPS responses refer to prior-year coverage.

⁴Medicare enrollees age 65 or over as of July 1 in hospital insurance (HI) and/or supplementary medical insurance (SMI) programs (includes institutionalized population).

⁵In the 1988-91 surveys, additional questions concerning health insurance status of children were asked. This set of questions is referred to as "cover sheet" questions. Responses to these questions resulted in additional children being assigned health insurance coverage.

⁶Unduplicated count of Medicaid recipients during fiscal year (includes institutionalized population).

NOTE: NA indicates that comparable statistics are not available.

SOURCE: U.S. Bureau of the Census: *Current Population Survey, 1980-91*; tabulations prepared by Fu Associates, Ltd., for the Health Care Financing Administration, Office of the Actuary.

uninsured (Aaron, 1991). On one hand, some health expenditures can be safely postponed until individuals have insurance. On the other hand, not all insured individuals have adequate coverage to meet their needs. Second, CPS counts of the uninsured are subject to interpretation. Respondents to the health insurance questions may describe their coverage at the time of the question rather than for the previous year (Swartz, 1986). Thus, CPS data on the uninsured may reflect their status at a point in time rather than for the entire year prior to the survey.

Caveats notwithstanding, the uninsured are a large and growing proportion of the population. In the 1991 CPS, approximately 34.7 million individuals were estimated to be without insurance coverage of any kind, private or public (Table 14). This group included 13.9 percent of the non-institutionalized population, or nearly one out of seven individuals. It comprised a larger proportion of the population when the elderly, who have almost universal coverage through Medicare, were not included in the base. Approximately 15.7 percent of the non-elderly population was uninsured (Table 2).

Because the health insurance questions were revised beginning with the 1988 CPS, data on the uninsured are not entirely consistent between the two periods 1980-87 and 1988-91. Nonetheless, the data indicate significant growth in the uninsured population during these two periods. From 1983 through 1985, the number of uninsured grew by 12.3 percent (from 33.0 million to 37.1 million, based on data excluding cover sheet children). Another large expansion occurred from 1988

through 1991, as the number of uninsured increased by 11.9 percent (from 31.0 million to 34.7 million, based on data including cover sheet children). These growth rates suggest that the uninsured have become a relatively larger problem during the 1980s, regardless of the actual number of uninsured (Table 1).

Prior to the 1988 CPS, information concerning coverage of family members by sources outside the household was not solicited from individuals in the survey. Beginning with the 1988 CPS, however, questions were asked about insurance coverage of children from outside sources. The additional information caused the number and proportion of children without insurance to fall significantly from 1987 through 1988, primarily because additional children were identified as having Medicaid coverage or private health insurance from an outside-household source.

Based on the revised questions, the number of uninsured young children, age 0 to 5, fell from 4.0 million in 1987 to 2.7 million in 1988, while the number of uninsured older children, age 6 to 18, fell from 9.2 million in 1987 to 6.1 million in 1988. From 1988 through 1991, however, young children were the only age group other than the elderly to escape the trend toward less insurance coverage, primarily as a result of expansions in the Medicaid program. The number of uninsured children under age 6 fell from 2.7 million to 2.6 million, while the number of uninsured in the other age groups increased in both absolute and relative numbers. The proportion of uninsured children, age 6-18, increased by 0.7 percentage points, from 13.5 to 14.2 percent. The number of young adults, age 19-24,

Table 14
Number and percent of persons¹ without health insurance coverage, by age group: United States, 1980-91

Survey year	Age in years						
	Total	0 to 5	6 to 18	19 to 24	25 to 34	35 to 64	65 or over
	Number in thousands including cover sheet children ²						
1991	34,719	2,648	6,485	5,864	8,324	11,121	276
1990	33,385	2,888	6,386	5,630	7,914	10,258	308
1989	32,680	2,813	6,255	5,555	7,920	9,861	275
1988	31,026	2,724	6,110	5,467	7,308	9,111	306
	Number in thousands excluding cover sheet children ²						
1991	39,629	4,612	9,431	5,864	8,324	11,121	276
1990	38,047	4,816	9,121	5,630	7,914	10,258	308
1989	36,830	4,403	8,816	5,555	7,920	9,861	275
1988	34,823	4,145	8,485	5,467	7,308	9,111	306
1987	37,357	4,012	9,150	6,986	7,074	9,830	304
1986	37,180	4,234	8,999	7,003	6,860	9,800	284
1985	37,055	4,213	9,131	7,461	6,506	9,483	261
1984	35,325	3,869	8,620	7,451	6,170	8,926	290
1983	32,996	3,616	8,251	6,781	5,704	8,319	325
1982	30,974	3,526	8,144	6,208	5,019	7,807	270
1981	NA	NA	NA	NA	NA	NA	NA
1980	30,474	3,502	8,149	5,385	4,543	8,067	828
	Percent of total population including cover sheet children ²						
1991	13.9	11.5	14.2	27.2	19.4	13.0	0.9
1990	13.6	12.8	14.1	25.9	18.3	12.3	1.0
1989	13.4	12.6	13.8	25.3	18.3	12.0	0.9
1988	12.9	12.4	13.5	24.4	17.0	11.4	1.1
	Percent of total population excluding cover sheet children ²						
1991	15.9	20.0	20.7	27.2	19.4	13.0	0.9
1990	15.5	21.3	20.1	25.9	18.3	12.3	1.0
1989	15.1	19.7	19.5	25.3	18.3	12.0	0.9
1988	14.4	18.9	18.8	24.4	17.0	11.4	1.1
1987	15.6	18.4	20.3	30.6	16.6	12.5	1.1
1986	15.7	19.5	20.0	29.8	16.3	12.7	1.0
1985	15.8	19.6	20.3	30.8	15.9	12.5	1.0
1984	15.2	18.1	19.2	30.0	15.4	12.0	1.1
1983	14.4	17.2	18.1	27.1	14.5	11.4	1.3
1982	13.6	17.3	17.6	24.7	13.0	10.9	1.1
1981	NA	NA	NA	NA	NA	NA	NA
1980	13.7	18.0	16.8	21.7	12.4	11.6	3.4

¹Civilian non-institutionalized population in the United States and military personnel living outside military bases or on military bases with their families.

²In the 1988-91 surveys, additional questions concerning health insurance status of children were asked. This set of questions is referred to as "cover sheet" questions. Responses to these questions resulted in additional children being assigned health insurance coverage.

NOTE: NA indicates that comparable statistics are not available.

SOURCE: U.S. Bureau of the Census: *Current Population Survey, 1980-91*; tabulations prepared by Fu Associates, Ltd., for the Health Care Financing Administration, Office of the Actuary.

increased by 2.8 percentage points, from 24.4 to 27.2 percent; those age 25-34, by 2.4 percentage points, from 17.0 to 19.4 percent, and those age 35-64, by 1.6 percentage points, from 11.4 to 13.0 percent.

Family incomes of the uninsured

Low-income families have relatively more uninsured members than high-income families, and the probability of being uninsured rises sharply as income falls. The link between income and insurance status can be seen in the distributions of uninsured individuals by family income relative to the Federal poverty level (approximately \$13,254 for a family of four in calendar year 1990). In the 1991 CPS, the uninsured included 9.7 million individuals who lived in families whose income from all sources was less than the poverty level (Table 15). Another 11.2 million were members of

families whose income was less than two times the poverty level.

Uninsured individuals in low-income (less than two times the poverty level) families comprised 60.2 percent of the total uninsured in the 1991 CPS, and they had higher-than-average uninsurance rates. Based on data including cover sheet children in the 1991 CPS, 15.7 percent of the non-elderly were uninsured, compared with 28.7 percent of the poor non-elderly. In contrast, 6.2 percent of individuals whose family income was at least three times the poverty level were lacking insurance. Thus the probability of low-income family members being without insurance was 1.8 times the national average of the non-elderly population and 4.6 times that of high-income families.

From 1988 through 1991, insurance coverage declined in all income groups except the poor. Coverage of poor families remained stable because Medicaid

insured more children in poor families. All higher income groups lost coverage, however, as employer-sponsored coverage of workers and their dependents declined and insurance premiums for individual purchasers of insurance rose.

Geographic distributions of the uninsured

Insurance coverage varies widely by area of the country. Geographic differences in coverage are affected by interrelated factors including work force attachment, wage rates, firm size, and type of industry (U.S. Congress, 1990). Cause-and-effect relationships

among these factors are not clearly defined, but areas in which workers receive high wages, work for large firms, and belong to unions have relatively fewer uninsured than other areas.

Based on data including cover sheet children, the 1991 CPS shows 9.0 percent of the population in New England States without insurance, compared with 20.3 percent of the population in West South Central States (Table 16, Figure 4). In absolute terms, three divisions—the West South Central, the Pacific, and the South Atlantic—had more than one-half of the uninsured, with 5.4 million, 6.8 million, and 6.8 million, respectively.

Table 15
Number and percent of uninsured persons, by family income relative to the poverty level:
United States, 1980-91

Survey year	Total uninsured population ¹	Family income			
		Below poverty level ²	1.00 to 1.99 times poverty level	2.00 to 2.99 times poverty level	3.00 or more times poverty level
Number in thousands including cover sheet children ³					
1991	34,719	9,696	11,222	6,397	7,405
1990	33,385	9,581	10,631	5,903	7,269
1989	32,680	9,738	10,198	5,608	7,136
1988	31,026	9,712	9,928	5,361	6,025
Number in thousands excluding cover sheet children ³					
1991	39,629	11,183	12,527	7,325	8,594
1990	38,047	10,932	11,955	6,736	8,425
1989	36,830	10,844	11,400	6,475	8,111
1988	34,823	10,920	10,894	6,139	6,870
1987	37,357	11,015	11,063	6,327	8,951
1985	37,055	11,218	11,263	6,654	7,920
1980	30,474	8,043	9,098	5,853	7,480
Percent of total uninsured population including cover sheet children ³					
1991	100.0	27.9	32.3	18.4	21.3
1990	100.0	28.7	31.8	17.7	21.8
1989	100.0	29.8	31.2	17.2	21.8
1988	100.0	31.3	32.0	17.3	19.4
Percent of total uninsured population excluding cover sheet children ³					
1991	100.0	28.2	31.6	18.5	21.7
1990	100.0	28.7	31.4	17.7	22.1
1989	100.0	29.4	31.0	17.6	22.0
1988	100.0	31.4	31.3	17.6	19.7
1987	100.0	29.5	29.6	16.9	24.0
1985	100.0	30.3	30.4	18.0	21.4
1980	100.0	26.4	29.9	19.2	24.5
Percent of people within income category including cover sheet children ³					
1991	NA	28.7	24.0	13.3	6.2
1990	NA	30.2	23.3	13.0	5.9
1989	NA	30.5	22.4	12.3	5.9
1988	NA	30.0	22.5	11.7	5.1
Percent of people within income category excluding cover sheet children ³					
1991	NA	33.1	30.8	15.3	7.1
1990	NA	34.4	29.8	14.9	6.8
1989	NA	34.0	27.9	14.2	6.7
1988	NA	33.7	27.9	13.4	5.8
1987	NA	33.8	28.4	13.6	7.8
1985	NA	33.0	27.3	14.0	7.5
1980	NA	30.5	23.0	12.1	7.1

¹Civilian non-institutionalized population in the United States and military personnel living outside military bases or on military bases with their families.

²Includes persons in families with negative income.

³In the 1988-91 surveys, additional questions concerning health insurance status of children were asked. This set of questions is referred to as "cover sheet" questions. Responses to these questions resulted in additional children being assigned health insurance coverage.

NOTE: NA indicates that comparable statistics are not available.

SOURCE: U.S. Bureau of the Census: *Current Population Survey, 1988-91*; tabulations prepared by Fu Associates, Ltd., for the Health Care Financing Administration, Office of the Actuary.

Although the uninsured are an increasing proportion of the population in all divisions except the Mountain States, much of the recent growth in the uninsured population occurred in two divisions. From 1988 through 1991, nearly 33 percent of the increase in the number of uninsured took place in the South Atlantic States (1.3 million out of a total increase of 3.7 million). Another 25 percent of the increase took place in the Pacific States, where the number of uninsured grew by more than 0.9 million. In relative terms, New England experienced the largest regional increase in the percentage of population without insurance from 1988 through 1991 (30 percent), from 0.9 million to 1.2 million. Despite this increase, New England still maintained the lowest percentage of the population without insurance coverage from any source.

Work force attachment

Because insurance coverage in the United States has evolved as a work-related system of private health insurance supplemented by public insurance, some advocates of insurance reform would build on the system to reduce the uninsured population. One of their recommendations includes extending employer-sponsored insurance to uninsured workers and their dependents (e.g., The Pepper Commission, 1990). Proponents of extended employer-sponsored insurance believe it would be less disruptive and more effective than other solutions because the uninsured population includes large numbers of workers and their dependents.

Nearly 30.4 million uninsured, or 87.5 percent of the total uninsured including cover sheet children in the 1991 CPS, were members of families in which the family member with the highest earnings (the "family head") was in the work force (derived from Table 17). About 54.0 percent of the uninsured were members of families headed by full-year, full-time workers. Another 22.0 percent of the uninsured lived in families headed by part-year, full-time workers.

Families headed by full-time, full-year workers probably would gain coverage from proposals to expand employer-sponsored health insurance. However, mandated coverage of workers also could have negative effects on employment and wages in some labor markets (Feldstein, 1988). Firms facing higher total compensation costs could respond by eliminating jobs, holding down wages, raising prices, or going out of business.

Individuals with little or no work force attachment would not easily be reached by expanded employer-sponsored insurance. Compared with other workers, for instance, part-year and part-time workers are offered insurance through their jobs less often, switch jobs more frequently, and are disproportionately likely to be without insurance. As an example, 25.1 percent of individuals in families headed by part-year, full-time workers were uninsured, compared with 11.8 percent of individuals in families headed by full-year, full-time workers.

Moreover, approximately one-eighth of the uninsured—4.3 million individuals based on data

Table 16
Number and percent of insured persons,¹ by census division: United States, selected years 1980-91

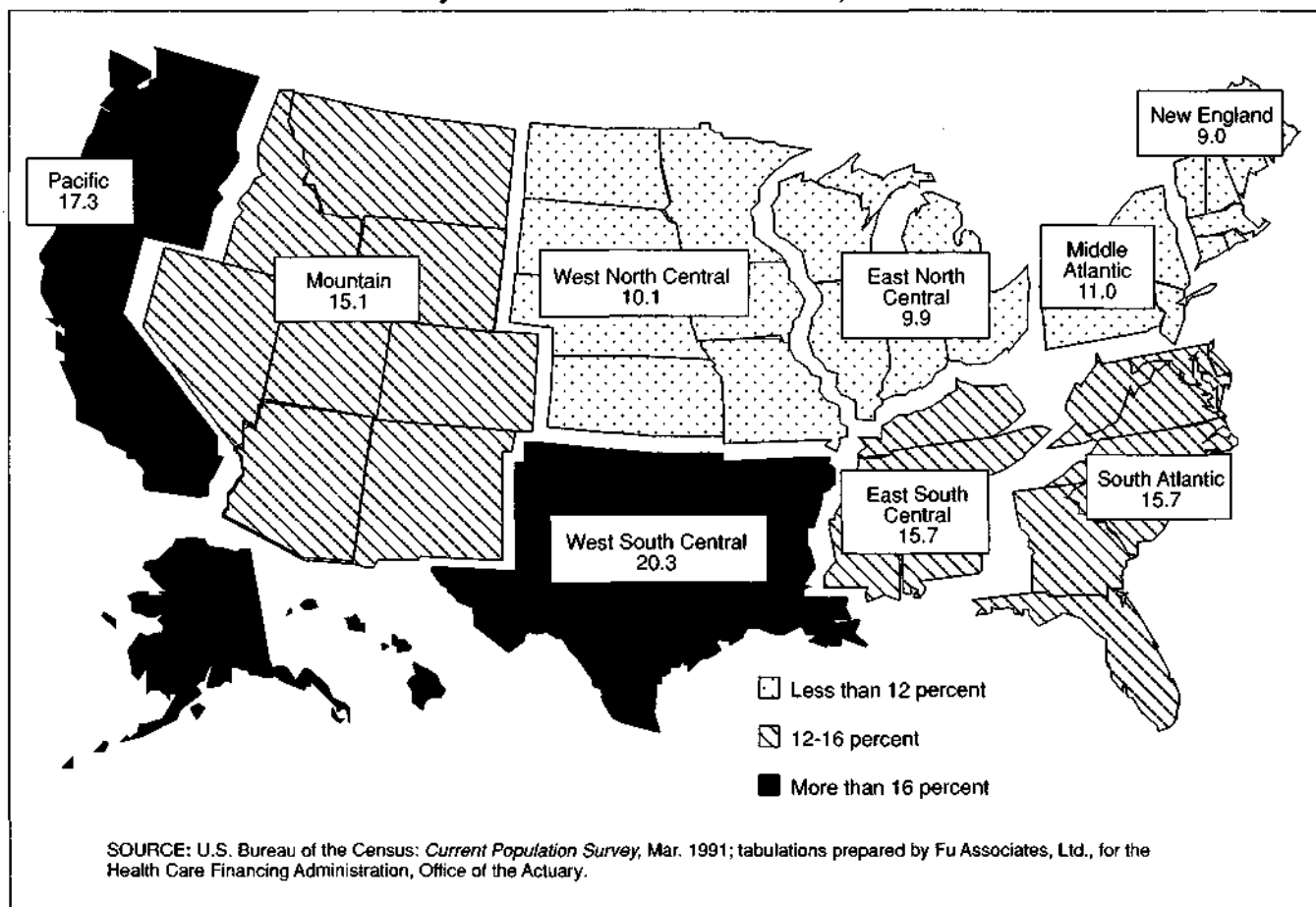
Census division	Excluding cover sheet children ²			Including cover sheet children ²	
	1980	1988	1991	1988	1991
	Number in thousands				
Total United States	30,474	34,823	39,629	31,026	34,719
New England	1,256	1,062	1,408	891	1,160
Middle Atlantic	4,137	3,987	4,852	3,473	4,166
East North Central	4,187	4,517	4,863	3,911	4,168
West North Central	1,948	1,780	2,074	1,587	1,810
South Atlantic	5,494	6,346	7,720	5,577	6,831
East South Central	2,243	2,583	2,790	2,303	2,395
West South Central	4,435	5,814	6,006	5,331	5,362
Mountain	1,978	2,282	2,354	2,101	2,070
Pacific	4,795	6,452	7,561	5,853	6,758
	Percent of total population				
Total United States	13.7	14.4	15.9	12.9	13.9
New England	10.4	8.4	10.9	7.0	9.0
Middle Atlantic	11.3	10.8	12.8	9.4	11.0
East North Central	10.2	10.9	11.5	9.4	9.9
West North Central	11.6	10.1	11.6	9.0	10.1
South Atlantic	15.0	15.4	17.8	13.5	15.7
East South Central	15.7	17.3	18.2	15.5	15.7
West South Central	19.1	21.9	22.7	20.1	20.3
Mountain	17.7	17.5	17.2	16.1	15.1
Pacific	15.3	17.6	19.3	15.9	17.3

¹Civilian non-institutionalized population in the United States and military personnel living outside military bases or on military bases with their families.

²In the 1988-91 surveys, additional questions concerning health insurance status of children were asked. Responses to these questions resulted in additional children being assigned health insurance coverage.

SOURCE: U.S. Bureau of the Census: *Current Population Survey, 1980-91*; tabulations prepared by Fu Associates, Ltd., for the Health Care Financing Administration, Office of the Actuary.

Figure 4
Percentage of population with no health insurance coverage,
by census division: United States, 1991



including cover sheet children in 1991—were in families whose head is not in the work force. This group probably contained more long-term uninsured individuals than other groups, but the data may be misleading in some cases. Family heads not in the work force can include retirees, disabled persons, and individuals just entering the labor force, as well as the chronically unemployed.

Employer-sponsored coverage of workers and their dependents has been declining over the last decade. Uninsured members of families headed by full-year, full-time workers increased by 18.1 percent (from 15.9 million to 18.7 million), while the overall number of uninsured increased by 11.9 percent (from 31.0 million to 34.7 million) from 1988 through 1991. The trend toward relatively more uninsured workers reflects factors such as high insurance premiums, less access to insurance by small firms, and increased employee cost sharing in firms offering group insurance to their employees.

Uninsured worker-specific characteristics

The work force includes several subgroups of uninsured workers. Some are not offered insurance or

do not have adequate wages to purchase it. Others have adequate wages but cannot buy insurance because of their health status. Still others voluntarily decline to purchase insurance even when it is affordable and available.

Table 18 shows the number and percent of uninsured full-year, full-time workers by hourly wage rate in 1989 dollars. This group of workers had better access to health insurance than part-time workers, and information on their insurance coverage was relatively consistent over time. As a result, the data may be particularly useful in evaluating insurance coverage of workers and their independents.

Insurance coverage of workers is highly correlated with income and skewed toward high-wage earners. In the 1991 CPS, 11.2 percent of workers with full-time, full-year employment were uninsured, but low-wage workers had higher-than-average rates of uninsurance. Some 51.8 percent of uninsured workers earned less than \$6 per hour, and another 29.0 percent earned from \$6 to \$10 per hour. The remaining 19.2 percent earned at least \$10 per hour.

The asymmetric distribution of health insurance coverage among workers can be seen by comparing coverage of workers in different wage categories.

Table 17

Number and percent of uninsured persons, by work status of family head:¹ United States, selected years 1980-91

Survey year	Total uninsured	Family heads working full-year and number of hours per week			Family heads working part-year and number of hours per week			Family head not in work force
		1-20 hours	21-34 hours	35 or more hours	1-20 hours	21-34 hours	35 or more hours	
Number in thousands including cover sheet children ²								
1991	34,719	650	1,265	18,732	845	1,268	7,622	4,337
1990	33,385	752	1,295	17,977	835	1,075	7,070	4,381
1989	32,680	707	1,119	17,786	1,017	1,161	6,650	4,239
1988	31,026	616	1,185	15,860	876	1,100	6,865	4,524
Number in thousands excluding cover sheet children ²								
1991	39,629	721	1,436	21,616	977	1,410	8,390	5,080
1990	38,047	798	1,448	20,612	981	1,245	7,800	5,164
1989	36,830	783	1,273	20,285	1,114	1,259	7,293	4,823
1988	34,823	653	1,304	17,896	1,001	1,245	7,454	5,269
1987	37,357	692	1,451	19,831	1,233	1,462	7,231	5,066
1985	37,055	759	1,346	19,086	1,112	1,402	7,460	5,283
1980	30,474	571	839	15,661	970	980	6,294	4,940
Percent of total uninsured including cover sheet children ²								
1991	100.0	1.9	3.6	54.0	2.4	3.7	22.0	12.5
1990	100.0	2.3	3.9	53.8	2.5	3.2	21.2	13.1
1989	100.0	2.2	3.4	54.4	3.1	3.6	20.3	13.0
1988	100.0	2.0	3.8	51.1	2.8	3.5	22.1	14.6
Percent of total uninsured excluding cover sheet children ²								
1991	100.0	1.8	3.6	54.5	2.5	3.6	21.2	12.8
1990	100.0	2.1	3.8	54.2	2.6	3.3	20.5	13.6
1989	100.0	2.1	3.5	55.1	3.0	3.4	19.8	13.1
1988	100.0	1.9	3.7	51.4	2.9	3.6	21.4	15.1
1987	100.0	1.9	3.9	53.1	3.3	3.9	19.4	13.6
1985	100.0	2.0	3.6	51.5	3.0	3.8	20.1	14.3
1980	100.0	1.9	2.8	51.4	3.2	3.2	20.7	16.2
Percent uninsured including cover sheet children ²								
1991	NA	20.6	25.8	11.8	19.3	29.0	25.1	10.2
1990	NA	24.9	27.1	11.3	18.7	29.6	24.5	10.4
1989	NA	22.5	24.0	11.4	23.0	28.7	25.2	9.5
1988	NA	21.5	26.6	10.4	20.0	29.1	24.7	10.1
Percent uninsured excluding cover sheet children ²								
1991	NA	22.9	29.2	13.6	22.3	32.3	27.6	11.9
1990	NA	26.4	30.3	12.9	22.0	34.3	27.0	12.2
1989	NA	24.9	27.3	13.0	25.1	31.1	27.6	10.9
1988	NA	22.8	29.3	11.7	22.9	33.0	26.9	11.7
1987	NA	27.4	32.1	13.2	27.0	37.3	25.3	12.0
1985	NA	28.2	31.3	13.1	25.7	36.3	25.6	12.7
1980	NA	24.2	26.3	11.0	24.2	30.3	20.0	14.2

¹Family head is defined as the family member with the highest income.

²In the 1988-91 surveys, additional questions concerning health insurance status of children were asked. This set of questions is referred to as "cover sheet" questions. Responses to these questions resulted in additional children being assigned health insurance coverage.

NOTE: NA indicates that comparable statistics are not available.

SOURCE: U.S. Bureau of the Census: *Current Population Survey, 1980-91*; tabulations prepared by Fu Associates, Ltd., for the Health Care Financing Administration, Office of the Actuary.

Workers earning \$6 to \$9.99 per hour had an 11.3-percent chance of being uninsured, but other workers had much different coverage rates. At the extremes, the probabilities of being without insurance ranged from a high of 39.6 percent for low-wage earners (earning \$3.35 or less per hour) to a low of 2.9 percent for high-wage earners (earning \$15 or more per hour).

The proportion of full-time, full-year workers without insurance has been increasing over time. From 1980 through 1991, the number of uninsured workers increased by 74.7 percent, from 5.1 million to 8.9 million, with most of the increase affecting low-

middle-wage earners. During this period, about 40 percent of workers earning \$3.35 or less were uninsured. However, the number of uninsured workers earning \$3.36 to \$5.99 per hour increased by nearly 10 percentage points, from 17.6 percent to 27.5 percent, and the number of uninsured workers earning \$6.00 to \$9.99 increased by 2.1 percentage points, from 9.2 percent to 11.3 percent.

A number of explanations for the decline in coverage of workers have been offered (Kronick, 1991). One hypothesis is that demand for insurance by poor workers declined as the price of medical care increased during the 1980s. The theory is that demand for

Table 18
Number and percent of uninsured full-year, full-time workers, by hourly wage rate in 1989 dollars:
United States, 1980-91

Survey year	Total uninsured workers ^{1,2}	Hourly wage rate in 1989 dollars				
		\$3.35 or less	\$3.36-5.99	\$6.00-9.99	\$10.00-14.99	\$15.00 or more
Number in thousands ²						
1991	8,857	1,320	3,271	2,569	1,121	576
1990	8,362	1,196	2,867	2,610	1,066	623
1989	8,349	1,185	2,785	2,585	1,134	660
1988	7,255	1,257	2,493	2,079	919	508
1987	6,978	1,137	2,475	2,003	776	587
1986	6,683	1,273	2,220	1,888	770	532
1985	6,477	1,117	2,282	1,767	809	502
1984	5,419	991	1,862	1,452	689	426
1983	4,716	943	1,459	1,430	539	344
1982	4,769	947	1,535	1,417	559	311
1981	NA	NA	NA	NA	NA	NA
1980	5,069	827	1,262	1,761	716	503
Percent of all workers ²						
1991	100.0	14.9	36.9	29.0	12.7	6.5
1990	100.0	14.3	34.3	31.2	12.7	7.4
1989	100.0	14.2	33.4	31.0	13.6	7.9
1988	100.0	17.3	34.4	28.7	12.7	7.0
1987	100.0	16.3	35.5	28.7	11.1	8.4
1986	100.0	19.1	33.2	28.3	11.5	8.0
1985	100.0	17.2	35.2	27.3	12.5	7.8
1984	100.0	18.3	34.4	26.8	12.7	7.9
1983	100.0	20.0	30.9	30.3	11.4	7.3
1982	100.0	19.9	32.2	29.7	11.7	6.5
1981	NA	NA	NA	NA	NA	NA
1980	100.0	16.3	24.9	34.7	14.1	9.9
Percent of workers ² in each category						
1991	11.2	39.6	27.5	11.3	5.3	2.9
1990	10.7	38.8	27.0	11.4	5.2	3.0
1989	10.7	40.3	27.5	11.8	5.4	3.1
1988	9.6	43.0	25.2	9.6	4.7	2.5
1987	9.6	38.6	24.3	9.9	4.1	3.0
1986	9.4	44.6	23.1	9.0	4.1	3.0
1985	9.4	40.8	23.0	9.0	4.3	3.0
1984	8.3	40.5	19.4	7.7	3.8	2.8
1983	7.6	40.1	17.8	7.2	3.3	2.3
1982	7.5	40.6	17.8	7.1	3.4	2.0
1981	NA	NA	NA	NA	NA	NA
1980	8.0	39.6	17.6	9.2	4.3	2.9

¹Civilian non-institutionalized population in the United States and military personnel living outside military bases or on military bases with their families.

²Worked during year prior to the survey.

NOTE: NA indicates that comparable statistics are not available.

SOURCE: U.S. Bureau of the Census: *Current Population Survey, 1980-91*; tabulations prepared by Fu Associates, Ltd., for the Health Care Financing Administration, Office of the Actuary.

insurance by low-wage earners has fallen because the poor face limited financial risk by going without it. That is, they have few assets to protect, and they can receive free or low-cost care through community programs to help the medically indigent.

An alternative explanation is that supply and demand in labor markets play a critical role in determining the availability of employer-sponsored insurance. Low-wage workers generally are thought to be more concerned about take-home pay than fringe benefits because of a strong need for income to purchase necessities, while employers are more concerned about total compensation than the split between wages and fringe benefits. Therefore, health insurance may not be offered by employers or demanded by employees in low-wage job markets.

Uninsured workers by industry

In 1991, 16.9 percent of all full- and part-time workers were uninsured, but coverage varied greatly across industries (Table 19). Industries in which low-wage, seasonal, or part-time jobs were common had higher-than-average shares of uninsured workers. Agriculture, forestry, and fisheries had the largest percent of uninsured workers (41.3 percent), for example, while construction, retail trade, and business and personal services also had large proportions of uninsured workers.

Industry trends are consistent with other data on uninsured workers. From 1980 through 1991, the proportion of workers without insurance increased in all industries except government and the

Table 19
Number and percent of uninsured workers, by industry of employment¹: United States, 1980-91

Survey year	Total	Agriculture, forestry, and fisheries	Mining	Construction	Manufacturing	Transportation, communication, and public utilities	Wholesale trade	Retail trade	Finance, insurance, and real estate	Business and personal services	Professional services	Government	Self-employed, unincorporated
Number in thousands													
1991	19,466	764	83	1,910	2,296	741	547	4,438	609	2,801	1,662	1,240	2,375
1990	18,287	754	71	1,818	2,204	649	547	3,885	630	2,772	1,472	1,224	2,260
1989	18,016	802	78	1,772	2,344	627	484	3,875	558	2,724	1,490	1,182	2,080
1988	16,556	799	61	1,600	2,022	673	448	3,641	598	2,470	1,246	1,016	1,983
1987	17,422	773	86	1,616	1,948	643	449	3,886	536	2,521	1,455	1,226	2,284
1986	16,966	705	85	1,479	1,800	559	442	3,840	506	2,555	1,420	1,213	2,363
1985	16,716	632	105	1,552	1,790	579	446	3,863	530	2,316	1,343	1,282	2,277
1984	15,279	699	72	1,367	1,517	480	434	3,399	469	2,122	1,261	1,315	2,145
1983	13,845	614	108	1,086	1,446	447	373	3,179	437	1,919	1,227	1,090	1,939
1982	13,088	593	90	1,104	1,473	416	393	2,765	387	1,616	1,173	1,120	1,967
1981	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	12,339	534	58	1,078	1,551	385	335	2,423	369	1,397	1,028	1,168	2,012
Percent of industry workers													
1991	16.9	41.3	9.9	29.9	10.6	11.3	12.2	24.2	8.5	24.6	10.9	6.4	25.0
1990	18.0	40.5	10.0	28.0	10.1	10.1	12.6	21.9	8.4	24.6	10.0	6.3	24.7
1989	15.9	42.1	10.1	27.7	10.6	9.9	11.5	22.2	7.6	24.9	10.3	6.2	23.5
1988	15.0	43.2	8.1	26.4	9.4	10.6	10.3	20.9	8.2	23.8	9.0	5.4	22.0
1987	16.6	41.8	9.0	26.4	9.0	10.5	10.3	22.5	8.0	24.8	10.7	7.0	26.8
1986	16.6	39.6	7.9	24.9	8.3	9.1	10.4	22.9	7.7	25.8	10.9	7.0	28.8
1985	16.6	36.8	10.0	26.6	8.2	9.6	10.7	23.8	8.3	24.9	10.8	7.4	27.6
1984	18.2	38.7	7.4	24.6	7.2	8.1	10.5	21.6	7.7	24.4	10.7	7.6	26.1
1983	15.2	34.0	9.1	20.6	6.6	7.9	8.9	21.0	7.7	23.0	10.4	6.5	24.1
1982	14.1	36.7	7.8	21.0	6.5	7.4	9.1	18.6	6.7	21.3	10.4	6.6	24.6
1981	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1980	13.7	35.7	6.6	20.3	6.7	7.0	9.2	17.0	6.9	20.3	9.6	6.8	26.1

¹Industry in which worker held job for the longest period during the year prior to the survey.

NOTE: NA indicates that comparable statistics are not available.

SOURCE: U.S. Bureau of the Census: *Current Population Survey, 1980-91*; tabulations prepared by Fu Associates, Ltd., for the Health Care Financing Administration, Office of the Actuary.

Table 20
Number and percent of uninsured workers by size of firm and wage rate:
United States, 1991

Number of workers at firm	Total uninsured workers	Hourly wage rate				
		\$3.35 or less	\$3.36-5.99	\$6.00-9.99	\$10.00-14.99	\$15.00 or more
Number in thousands						
All firms	19,284	3,285	7,302	5,210	2,086	1,401
Fewer than 25	9,438	1,827	3,315	2,542	1,043	711
25 to 99	3,081	479	1,268	861	321	152
100 to 499	2,160	287	863	598	193	218
500 to 999	629	95	233	181	66	54
1,000 or more	3,976	596	1,624	1,027	463	266
Percent of all uninsured						
All firms	100.0	17.1	37.9	27.0	10.8	7.3
Fewer than 25	48.9	9.5	17.2	13.2	5.4	3.7
25 to 99	16.0	2.5	6.6	4.5	1.7	0.8
100 to 499	11.2	1.5	4.5	3.1	1.0	1.1
500 to 999	3.3	0.5	1.2	0.9	0.3	0.3
1,000 or more	20.6	3.1	8.4	5.3	2.4	1.4
Percent within each wage group						
All firms	100.0	100.0	100.0	100.0	100.0	NA
Fewer than 25	48.9	55.6	45.4	48.8	50.0	NA
25 to 99	16.0	14.6	17.4	16.5	15.4	NA
100 to 499	11.2	8.7	11.8	11.5	9.3	NA
500 to 999	3.3	2.9	3.2	3.5	3.2	NA
1,000 or more	20.6	18.2	22.2	19.7	22.2	NA
Percent of all workers in wage group						
All firms	15.8	33.4	28.9	15.3	7.8	5.5
Fewer than 25	7.7	18.6	13.1	7.5	3.9	2.8
25 to 99	2.5	4.9	5.0	2.5	1.2	0.6
100 to 499	1.8	2.9	3.4	1.8	0.7	0.8
500 to 999	0.5	1.0	0.9	0.5	0.2	0.2
1,000 or more	3.3	6.1	6.4	3.0	1.7	1.0

NOTE: NA indicates that comparable statistics are not available.

SOURCE: U.S. Bureau of the Census: *Current Population Survey*, 1991; tabulations prepared by Fu Associates, Ltd., for the Health Care Financing Administration, Office of the Actuary.

unincorporated self-employed. During the same period, employment grew substantially in service industries that historically have had relatively high percentages of uninsured workers (e.g., retail trade and business and personal services).

Changes in manufacturing also contributed to the loss of coverage. Manufacturing employs more workers than most other industries and traditionally has offered health insurance as a fringe benefit. However, from 1980 through 1991, manufacturing jobs declined by 8.6 percent, and the percent of the manufacturing work force without insurance increased by 58.2 percent (from 6.7 percent to 10.6 percent).

Size of firm and wages

Firm size is an important factor in determining whether or not workers have access to coverage. Small firms generally pay higher premiums for the same benefit package than large firms, have less access to insurance because of insurance industry underwriting and rating practices, and employ low-wage and part-time workers who have limited capability to pay for insurance (U.S. Congress, 1990). As a result, a large proportion of uninsured workers are concentrated in small firms.

In 1991, 48.9 percent of all uninsured workers had jobs in firms that had fewer than 25 employees (Table 20). Some 39.8 percent of these workers earned less than \$10 per hour. Another 9.1 percent earned more than \$10 per hour.

Moreover, the proportion of uninsured in small firms does not vary widely by wage rate. Approximately 50 percent of all workers in firms of fewer than 25 employees were uninsured regardless of whether they were low- or high-wage earners. Uninsurance rates ranged from a low of 45.4 percent for workers earning \$3.36 to \$5.99 per hour to a high of 55.6 percent of workers earning \$3.35 or less.

Conclusion

Despite the continuity problems encountered in using CPS data, some significant trends are discernible from this data source from 1980 through 1991. A smaller proportion of the population was covered by private health insurance, and a larger proportion was covered by Medicaid, particularly in 1991, and was uninsured. An increasing percentage of the uninsured lived in families headed by workers. More and more, holding a full-time full-year job did not guarantee access to affordable private health insurance through an

employer. This characteristic was particularly strong for small firms and for workers in low-paying and part-time jobs. Public programs provided a safety net for many, but not all, Americans. Almost all elderly persons received health insurance coverage through Medicare, and Medicaid reached segments of the poorest Americans, particularly children and mothers.

Trends indicate that the current insurance structure probably continued to change in the March 1992 CPS as the Nation remained in the economic recession in early 1992. People will have reduced access to employer-sponsored insurance through jobs, and rising costs will make premiums increasingly unaffordable for both employers and employees. Trend information from the CPS can focus our attention on changes in the extent of health insurance coverage from various sources and can highlight employment characteristics that influence the source of coverage for Americans.

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