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# One in Three:

*Non-Elderly  
Americans  
Without  
Health Insurance,  
2002-2003*

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A REPORT BY

**Families USA**

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*June 2004*

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**One in Three: Non-Elderly Americans  
Without Health Insurance, 2002-2003**

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## INTRODUCTION

**E**very year, the U.S. Census Bureau—in its Current Population Survey (CPS)—reports the number of people who are uninsured. This widely quoted number is intended to offer an estimate of how many people did not have any type of health insurance for the entire previous calendar year. In September 2003, the CPS report estimated that there were 43.6 million uninsured people in the United States in 2002. This represents an increase of 14.6 percent, or 2.4 million people, over 2001—the largest increase in a decade.

There are many people, however, who are uninsured for a portion of a year but not for the entire year. These individuals are not reflected in the widely quoted Census Bureau number, but they may be profoundly affected by their uninsured status—in terms of both their physical and their economic well-being. To fully understand the scope of the problem—to know how many Americans are directly affected by a lack of health insurance—we need to broaden our sights and include those who are uninsured for a portion of the year, as well.

This report examines how many people under the age of 65 were without health insurance for all or part of 2002 and 2003. The findings are based exclusively on data projections drawn from the most recent CPS as well as the Census Bureau's Survey of Income and Program Participation (SIPP).

Based on this analysis, **approximately 81.8 million people—one out of three (32.2 percent) of those under the age of 65—were without health insurance for all or part of 2002 and 2003. Of these 81.8 million uninsured individuals, two-thirds (65.3 percent) were uninsured for six months or more.**

Table 1

**People under Age 65 Uninsured during 2002-2003, by State**

| State                 | Total Number      | Percent of Non-Elderly Population |
|-----------------------|-------------------|-----------------------------------|
| Alabama               | 1,167,000         | 30.3%                             |
| Alaska                | 208,000           | 35.0%                             |
| Arizona               | 1,707,000         | 35.7%                             |
| Arkansas              | 801,000           | 34.4%                             |
| California            | 11,945,000        | 37.1%                             |
| Colorado              | 1,309,000         | 32.1%                             |
| Connecticut           | 767,000           | 26.5%                             |
| Delaware              | 185,000           | 26.2%                             |
| District of Columbia  | 163,000           | 32.1%                             |
| Florida               | 4,793,000         | 34.6%                             |
| Georgia               | 2,499,000         | 32.2%                             |
| Hawaii                | 346,000           | 32.2%                             |
| Idaho                 | 395,000           | 33.8%                             |
| Illinois              | 3,492,000         | 31.5%                             |
| Indiana               | 1,534,000         | 28.5%                             |
| Iowa                  | 637,000           | 25.2%                             |
| Kansas                | 624,000           | 26.4%                             |
| Kentucky              | 1,059,000         | 29.9%                             |
| Louisiana             | 1,426,000         | 36.2%                             |
| Maine                 | 290,000           | 26.9%                             |
| Maryland              | 1,354,000         | 27.8%                             |
| Massachusetts         | 1,443,000         | 25.6%                             |
| Michigan              | 2,538,000         | 28.7%                             |
| Minnesota             | 1,020,000         | 22.4%                             |
| Mississippi           | 875,000           | 35.1%                             |
| Missouri              | 1,354,000         | 27.4%                             |
| Montana               | 246,000           | 31.4%                             |
| Nebraska              | 400,000           | 26.6%                             |
| Nevada                | 700,000           | 36.8%                             |
| New Hampshire         | 259,000           | 23.0%                             |
| New Jersey            | 2,199,000         | 29.3%                             |
| New Mexico            | 685,000           | 42.4%                             |
| New York              | 5,646,000         | 33.4%                             |
| North Carolina        | 2,439,000         | 33.7%                             |
| North Dakota          | 144,000           | 26.3%                             |
| Ohio                  | 2,755,000         | 27.8%                             |
| Oklahoma              | 1,066,000         | 35.0%                             |
| Oregon                | 968,000           | 30.7%                             |
| Pennsylvania          | 2,804,000         | 27.0%                             |
| Rhode Island          | 249,000           | 27.2%                             |
| South Carolina        | 1,055,000         | 30.3%                             |
| South Dakota          | 180,000           | 27.4%                             |
| Tennessee             | 1,447,000         | 28.4%                             |
| Texas                 | 8,536,000         | 43.4%                             |
| Utah                  | 651,000           | 30.1%                             |
| Vermont               | 136,000           | 24.9%                             |
| Virginia              | 1,836,000         | 28.7%                             |
| Washington            | 1,639,000         | 30.0%                             |
| West Virginia         | 465,000           | 31.7%                             |
| Wisconsin             | 1,253,000         | 25.7%                             |
| Wyoming               | 143,000           | 32.7%                             |
| <b>United States*</b> | <b>81,834,000</b> | <b>32.2%</b>                      |

\* Numbers do not add due to rounding.

Source: Estimates based on the Census Bureau's most recent CPS and SIPP data.

## KEY FINDINGS

### The Number of Uninsured People in 2002-2003

- One out of three people in the United States under the age of 65 went without health insurance for all or part of the two-year period from 2002-2003 (approximately 81.8 million uninsured people—32.2 percent of those under the age of 65). (See Table 1.)
- In 14 states (including the four most populous states in the country), *more than one out of three* people under the age of 65 went without health insurance for all or part of 2002-2003. Those states were Texas (43.4 percent of the total population under 65 were uninsured), New Mexico (42.4 percent), California (37.1 percent), Nevada (36.8 percent), Louisiana (36.2 percent), Arizona (35.7 percent), Mississippi (35.1 percent), Oklahoma (35.0 percent), Alaska (35.0 percent), Florida (34.6 percent), Arkansas (34.4 percent), Idaho (33.8 percent), North Carolina (33.7 percent), and New York (33.4 percent). (See Table 1.)
- The 10 states with the largest *number* of uninsured people were California (11.9 million), Texas (8.5 million), New York (5.6 million), Florida (4.8 million), Illinois (3.5 million), Pennsylvania (2.8 million), Ohio (2.8 million), Michigan (2.5 million), Georgia (2.5 million), and North Carolina (2.4 million). (See Table 1.)

### Number of Months Uninsured

- Two-thirds (65.3 percent) of the 81.8 million uninsured people were without health insurance coverage for six months or longer during 2002-2003. Over half (50.6 percent) of the uninsured were without health coverage for nine or more months. (See Table 2.)

Table 2

#### Duration without Health Insurance for Uninsured People under Age 65, 2002-2003

| Months Uninsured | Number Uninsured  | As Percent of All Uninsured |
|------------------|-------------------|-----------------------------|
| 1-2 Months       | 5,793,000         | 7.1%                        |
| 3-5 Months       | 22,611,000        | 27.6%                       |
| 6-8 Months       | 12,057,000        | 14.7%                       |
| 9-12 Months      | 9,633,000         | 11.8%                       |
| 13-23 Months     | 18,065,000        | 22.1%                       |
| 24 Months        | 13,676,000        | 16.7%                       |
| <b>Total*</b>    | <b>81,834,000</b> | <b>100.0%</b>               |

\* Numbers do not add due to rounding.

Source: Estimates based on the Census Bureau's most recent CPS and SIPP data.

Table 3

**People under Age 65 Who Were Uninsured for More than Six Months during 2002-2003, by State**

| State                 | Uninsured During 2002-2003 | Uninsured 6+ Months |              |
|-----------------------|----------------------------|---------------------|--------------|
|                       | Number                     | Number              | Percent      |
| Alabama               | 1,167,000                  | 741,000             | 63.5%        |
| Alaska                | 208,000                    | 136,000             | 65.4%        |
| Arizona               | 1,707,000                  | 1,163,000           | 68.1%        |
| Arkansas              | 801,000                    | 518,000             | 64.7%        |
| California            | 11,945,000                 | 8,171,000           | 68.4%        |
| Colorado              | 1,309,000                  | 864,000             | 66.0%        |
| Connecticut           | 767,000                    | 471,000             | 61.4%        |
| Delaware              | 185,000                    | 112,000             | 60.7%        |
| District of Columbia  | 163,000                    | 102,000             | 62.6%        |
| Florida               | 4,793,000                  | 3,265,000           | 68.1%        |
| Georgia               | 2,499,000                  | 1,612,000           | 64.5%        |
| Hawaii                | 346,000                    | 202,000             | 58.4%        |
| Idaho                 | 395,000                    | 262,000             | 66.4%        |
| Illinois              | 3,492,000                  | 2,236,000           | 64.0%        |
| Indiana               | 1,534,000                  | 962,000             | 62.7%        |
| Iowa                  | 637,000                    | 378,000             | 59.3%        |
| Kansas                | 624,000                    | 380,000             | 60.8%        |
| Kentucky              | 1,059,000                  | 671,000             | 63.3%        |
| Louisiana             | 1,426,000                  | 950,000             | 66.6%        |
| Maine                 | 290,000                    | 178,000             | 61.5%        |
| Maryland              | 1,354,000                  | 870,000             | 64.3%        |
| Massachusetts         | 1,443,000                  | 848,000             | 58.8%        |
| Michigan              | 2,538,000                  | 1,510,000           | 59.5%        |
| Minnesota             | 1,020,000                  | 582,000             | 57.1%        |
| Mississippi           | 875,000                    | 565,000             | 64.6%        |
| Missouri              | 1,354,000                  | 819,000             | 60.5%        |
| Montana               | 246,000                    | 158,000             | 64.4%        |
| Nebraska              | 400,000                    | 239,000             | 59.9%        |
| Nevada                | 700,000                    | 493,000             | 70.4%        |
| New Hampshire         | 259,000                    | 154,000             | 59.5%        |
| New Jersey            | 2,199,000                  | 1,404,000           | 63.8%        |
| New Mexico            | 685,000                    | 478,000             | 69.7%        |
| New York              | 5,646,000                  | 3,689,000           | 65.3%        |
| North Carolina        | 2,439,000                  | 1,601,000           | 65.6%        |
| North Dakota          | 144,000                    | 88,000              | 60.9%        |
| Ohio                  | 2,755,000                  | 1,679,000           | 61.0%        |
| Oklahoma              | 1,066,000                  | 697,000             | 65.4%        |
| Oregon                | 968,000                    | 631,000             | 65.2%        |
| Pennsylvania          | 2,804,000                  | 1,745,000           | 62.2%        |
| Rhode Island          | 249,000                    | 149,000             | 59.8%        |
| South Carolina        | 1,055,000                  | 646,000             | 61.2%        |
| South Dakota          | 180,000                    | 107,000             | 59.4%        |
| Tennessee             | 1,447,000                  | 851,000             | 58.8%        |
| Texas                 | 8,536,000                  | 6,263,000           | 73.4%        |
| Utah                  | 651,000                    | 397,000             | 61.1%        |
| Vermont               | 136,000                    | 79,000              | 58.4%        |
| Virginia              | 1,836,000                  | 1,167,000           | 63.5%        |
| Washington            | 1,639,000                  | 1,039,000           | 63.4%        |
| West Virginia         | 465,000                    | 301,000             | 64.6%        |
| Wisconsin             | 1,253,000                  | 742,000             | 59.2%        |
| Wyoming               | 143,000                    | 94,000              | 65.8%        |
| <b>United States*</b> | <b>81,834,000</b>          | <b>53,460,000</b>   | <b>65.3%</b> |

\* Numbers do not add due to rounding.

Source: Estimates based on the Census Bureau's most recent CPS and SIPP data.

- Among all uninsured people under the age of 65, 16.7 percent were uninsured for the full 24 months during 2002-2003; 22.1 percent were uninsured for 13 to 23 months; 11.8 percent were uninsured for 9 to 12 months; 14.7 percent were uninsured for 6 to 8 months; and 27.6 percent were uninsured for 3 to 5 months. Only 7.1 percent of all uninsured people were without health insurance for two months or less. (See Tables 2 and 3.)

### Work Status and Income of Uninsured

- More than four in five individuals (84.5 percent) who went without health insurance during 2002-2003 were connected to the workforce in December 2003—78.8 percent were employed, and 5.7 percent were actively looking for employment. (See Table 4.)

Table 4

#### People under Age 65 without Health Insurance during 2002-2003, by Employment Status \*

| Employment Status At End of Period | Number Uninsured  | As Percent of All Uninsured |
|------------------------------------|-------------------|-----------------------------|
| Employed (full- or part-time)      | 64,493,000        | 78.8%                       |
| Unemployed (seeking work)          | 4,696,000         | 5.7%                        |
| Not in Labor Force                 | 12,645,000        | 15.5%                       |
| <b>Total</b>                       | <b>81,834,000</b> | <b>100.0%</b>               |

\* For adults (ages 18 to 64), employment status reflects the individual's employment status. For children (under age 18), if one parent is employed, then the child is counted as "employed" or as a member of an employed family. See the technical appendix for details regarding the methodology.

- Of the people who were uninsured during 2002-2003, only 15.5 percent (of the uninsured adults and the parents of uninsured children) were not in the labor force—because they were disabled, chronically ill, family caregivers, or not looking for employment for other reasons. (See Table 4.)
- Nearly two-thirds (60.9 percent) of individuals in families with incomes at or below 100 percent of the federal poverty level (\$18,660 a year for a family of four in 2003) were uninsured. (See Table 5.)
- More than half (53.5 percent) of individuals in families with incomes between 100 and 200 percent of the federal poverty level (up to \$37,320 a year for a family of four in 2003) were uninsured. (See Table 5.)

- The likelihood of being uninsured decreases considerably as income increases. However, a quarter (25.2 percent) of working individuals and their families with incomes between 300 and 400 percent of the federal poverty level (from \$55,980 to \$74,040 a year for a family of four in 2003) were uninsured. For people with incomes at four or more times the poverty level, the rate of uninsurance is 13.7 percent. (See Table 5.)

Table 5

**People under Age 65 without Health Insurance during 2002-2003, by Income Level**

| Family Income Relative to Poverty Level | Number Uninsured  | Percent of Income Group Uninsured |
|---|-------------------|-----------------------------------|
| ≤ 100%                                  | 20,681,000        | 60.9%                             |
| 101-199%                                | 23,065,000        | 53.5%                             |
| 200-299%                                | 15,512,000        | 36.7%                             |
| 300-399%                                | 9,104,000         | 25.2%                             |
| 400%+                                   | 13,474,000        | 13.7%                             |
| <b>Total</b>                            | <b>81,834,000</b> |                                   |

\* Numbers do not add due to rounding.

Source: Estimates based on the Census Bureau's most recent CPS and SIPP data.

### Uninsured Hispanics and African Americans

- Hispanic and African American people were much more likely to be uninsured compared to white, non-Hispanic people: 59.5 percent of Hispanics and 42.9 percent of African Americans were uninsured, compared to 23.5 percent of white, non-Hispanics. (See Table 6.)

Table 6

**People under Age 65 without Health Insurance during 2002-2003, by Race and Hispanic Origin**

| Race and Hispanic Origin | Number Uninsured  | Percent of Race/Ethnic Group Uninsured | As Percent of All Uninsured |
|--------------------------|-------------------|--|-----------------------------|
| White, Non-Hispanic      | 39,386,000        | 23.5%                                  | 48.1%                       |
| Black, Non-Hispanic      | 13,720,000        | 42.9%                                  | 16.8%                       |
| Hispanic                 | 22,416,000        | 59.5%                                  | 27.4%                       |
| Other                    | 6,312,000         | 38.5%                                  | 7.7%                        |
| <b>Total</b>             | <b>81,834,000</b> |  | <b>100.0%</b>               |

Source: Estimates based on the Census Bureau's most recent CPS and SIPP data.



- However, white, non-Hispanic people made up the largest category (48.1 percent) of people under the age of 65 without health insurance for all or part of the two-year period. (See Table 6.)

### Age of Uninsured

- Of the total 81.8 million uninsured people, 54.8 million were uninsured adults (18 to 64 years old). (See Table 7.)
- The likelihood of being uninsured declined among adults as age increased. The percentage who were uninsured was highest among 18- to 24-year-olds (50.3 percent) and 25- to 44-year-olds (32.9 percent). The percentage who were uninsured declined for 45- to 54-year-olds and 55- to 64-year-olds—to 20.7 percent and 17.3 percent, respectively. (See Table 7.)
- Of the total 81.8 million uninsured people, 27.0 million were uninsured children (under the age of 18)—36.7 percent of all children in the U.S. (See Table 7.)

Table 7

#### People under 65 without Health Insurance during 2002-2003, by Age

| Age          | Number Uninsured  | Percent of Age Group Uninsured | As Percent of All Uninsured |
|--------------|-------------------|--------------------------------|-----------------------------|
| 0-17 Years   | 27,030,000        | 36.7%                          | 33.0%                       |
| 18-24 Years  | 13,931,000        | 50.3%                          | 17.0%                       |
| 25-44 Years  | 27,667,000        | 32.9%                          | 33.8%                       |
| 45-54 Years  | 8,407,000         | 20.7%                          | 10.3%                       |
| 55-64 Years  | 4,799,000         | 17.3%                          | 5.9%                        |
| <b>Total</b> | <b>81,834,000</b> |                                | <b>100.0%</b>               |

Source: Estimates based on the Census Bureau's most recent CPS and SIPP data.

## Regional Differences in Rate of Uninsured

- The incidence of people under the age of 65 who were without health insurance for all or part of 2002-2003 varied among the four regions of the country (Northeast, Midwest, South, and West). The percentage who were uninsured varied from 35.3 percent in the West to 27.9 percent in the Midwest. (See Table 8.)
- While the West had the highest incidence of uninsured people (35.3 percent), the South was a close second (34.5 percent). (See Table 8.)

Table 8

### People under 65 without Health Insurance during 2002-2003, by Region

| Region *     | Number Uninsured  | Percent of Regional Group Uninsured |
|--------------|-------------------|-------------------------------------|
| Northeast    | 13,879,000        | 29.4%                               |
| Midwest      | 16,001,000        | 27.9%                               |
| South        | 31,127,000        | 34.5%                               |
| West         | 20,827,000        | 35.3%                               |
| <b>Total</b> | <b>81,824,000</b> |                                     |

Source: Estimates based on the Census Bureau's most recent CPS and SIPP data.

\* The Northeast region includes Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

The Midwest region includes Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

The South region includes Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

The West region includes Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

## DISCUSSION

According to the U.S. Census Bureau, an estimated 43.6 million Americans were uninsured in 2002. This widely quoted number, derived from the Census Bureau's annual Current Population Survey (CPS), has provided an excellent measure of trends in the number of uninsured people from year to year. Indeed, from 2001 to 2002, the Census Bureau reported the largest increase in the number of uninsured people in the past decade—an increase of 14.6 percent, or 2.4 million people, over 2001.

This study was designed to take a closer look, to improve our understanding of how many people experience a significant gap in coverage. Not only does it measure the number of uninsured people over a longer period of time than the CPS (two years versus one), it also measures people uninsured for different lengths of time. By taking this closer look, we found that many more people were touched by a significant gap in health insurance than was previously recognized. These individuals were not included in the number of people without health insurance reported by the CPS. Nevertheless, they may be profoundly affected by being uninsured—in terms of both their physical and economic well-being (see “Why Insurance Matters” on page 20). No picture of the causes and consequences of being uninsured is complete unless it includes all who experience a significant gap in health insurance coverage.

As described more fully in the Technical Appendix (see page 25), this study’s findings are based exclusively on the most recent data projections from the CPS as well as the Census Bureau’s Survey of Income and Program Participation (SIPP).

Based on this analysis, approximately 81.8 million people—nearly one out of three (32.2 percent) of those under the age of 65—were without health insurance for all or part of 2002 and 2003. Of these 81.8 million uninsured individuals, two-thirds (65.3 percent) were uninsured for six months or more.

### **The Proportion of Individuals with Gaps in Health Insurance Varied Significantly from State to State**

On a national basis, the percentage of uninsured people under the age of 65 was one out of three (32.2 percent). However, Table 1 shows that there was wide variation by state in the percentage of the population that was uninsured. Texas had the highest percentage—43.4 percent of the total population under 65 was uninsured for all or part of 2002-2003. Minnesota had the lowest percentage—22.4 percent. This range—a difference of 21.0 percentage points—is due to variations in a number of factors, including the categories of people covered by, income eligibility levels for, and enrollment rules of a state’s Medicaid program and the State Children’s Health Insurance Program

(SCHIP); the prevalence of jobs that offer health coverage; state economies and the incomes of state residents; the existence of state COBRA-like health continuation laws for workers in small firms who lose their employer-based coverage; and the presence of other state health insurance programs.

Many people wrongly assume that Medicaid, as a national program designed to insure those with low incomes, will even out these state variations. Medicaid serves approximately 51 million lower-income people, most of whom would be uninsured but for Medicaid. The program, however, does not reach many millions of others who are uninsured and no less needy—typically low-wage workers and the dependents of those workers. This is because Medicaid’s current structure allows state eligibility standards that resemble a patchwork quilt.

Medicaid is really 51 different programs run by the states and the District of Columbia with 51 different sets of rules about who is eligible for coverage, different income guidelines, different enrollment procedures, and different reporting requirements to stay in the program.

In almost all states, Medicaid income eligibility levels *differ radically based on family status*. In nearly four out of five states, for example, a *child* is eligible for public health coverage (through either Medicaid or SCHIP) if that child’s family income is below 200 percent of the federal poverty level. For *parents*, however, the eligibility standards are much lower than they are for children. The median income eligibility limit for parents among the 50 states is just over 70 percent of the federal poverty level—only \$10,835 in annual income for a family of three. In 42 states, *adults who are not parents* can literally be penniless and not qualify for Medicaid or any other public coverage. Thus, the “holes” in the Medicaid patchwork quilt of state programs are numerous.

Modernizing this arbitrary system by making eligibility for Medicaid more uniform across states and eliminating family status as a criterion for eligibility could help shrink these “holes” and the number of people who are uninsured.

### Lack of Health Insurance Was a Problem for Working Individuals and Families

Table 4 shows that, contrary to popular perception, the overwhelming majority of people who experienced periods without health insurance in the last two years were connected to the workforce (either employed or actively seeking work). More than four in five individuals (85.5 percent) who went without health insurance during 2002-2003 were connected to the workforce in December 2003. Of those uninsured individuals connected to the workforce, 78.8 percent were employed in December 2003, and 5.7 percent were actively looking for employment.

The findings in this study are consistent with previous research, which confirms that more than 80 percent of individuals without health insurance are part of families where at least one member works full- or part-time.<sup>1</sup> While this previous research looked at the work status of the entire family unit for everyone in the study, this study looked at the work status of the family unit (that is, if one parent in the family works) for children but not for adults. *For adults*, we looked at the work status of the *individual*. Thus, we did *not* count an adult who lives with a working spouse or in a family with another working adult as being connected to the workforce. Indeed, our finding that 84.5 percent of uninsured individuals were connected to the workforce is especially dramatic considering that our methodology tends to *underestimate* the number of adults who are part of a working family unit.

The remaining 15.5 percent of uninsured adults and parents of uninsured children were not in the labor force—that is, they did not have jobs and were not actively seeking one. People stop looking for a job and leave the labor force for many reasons. Some people are disabled or chronically ill and unable to work. Many do not work in order to care for children or ailing family members. Others become discouraged over time when their job search is unsuccessful and stop looking for work.

There are four primary reasons why employed people went without health insurance coverage (or their children went without coverage) for all or part of the previous two years. *First*, not all jobs offer health insurance

benefits. The likelihood that an employer offers health benefits to its workers varies considerably according to the characteristics of the employer. For example, small employers, low-wage employers, and employers with older workers are all less likely to offer health coverage to their employees than are their counterparts.<sup>2</sup>

*Second*, some employees who are offered coverage by their employer cannot afford to pay their share of the cost of the premiums. This is particularly true for low-wage workers:<sup>3</sup> As income rises, the risk of being uninsured declines. A quarter (25.2 percent) of working individuals and their families with incomes between 200 and 300 percent of the federal poverty level (between \$32,320 and \$55,980 for a family of four in 2003) were uninsured. For people with incomes four or more times the poverty level (over \$74,640 for a family of four), the rate of uninsurance drops to 13.7 percent.<sup>4</sup> (See Table 5.)

*Third*, contrary to popular belief, Medicaid does not provide coverage to most workers in low-wage jobs. Medicaid income eligibility levels are set by each state. A parent in a family of three working full time all year at the federal minimum wage (\$5.15 an hour) would earn too much to qualify for Medicaid in half the states, even though the family's annual income would only be about \$10,700—well below the poverty level. A parent working full time and earning \$7.50 an hour would have income just above 100 percent of the federal poverty level, but she/he would be ineligible for Medicaid in 36 states. In 42 of 50 states, adults without dependent children are ineligible for Medicaid even if they have no income at all.<sup>5</sup>

*Fourth*, an important reason why people employed in December 2003 experienced gaps in health insurance coverage in the past two years was temporary job loss due to layoffs, job elimination, termination, or worker choice. As the workforce becomes increasingly mobile, we can expect more and more workers to experience periods of joblessness and, thus, temporary loss of insurance. Some workers who lose employer-based health insurance are eligible to remain temporarily on their former employer's plan through the federal COBRA statute or a state COBRA-like law affecting small employers.<sup>6</sup> However, the costs of such coverage are usually prohibitive. While it is estimated that 57 percent of non-elderly workers were potentially eligible for COBRA, only

7 percent of unemployed workers had COBRA coverage in 1999. (This rate ranged from 5 percent for low-income adults to 11 percent for those with higher incomes).<sup>7</sup> This is because an unemployed worker usually must pay the employer's full costs for such coverage plus a 2 percent administrative fee. The national average cost of employer-provided family coverage plus a 2 percent fee is \$9,249 a year.<sup>8</sup> Thus, while it is not unusual to have a gap of time between jobs in today's work world, these gaps often leave workers and their families without insurance coverage and at serious health and financial risk.

Any attempt to provide coverage to a significant number of uninsured individuals must address the problem of lower-wage workers who are not offered or cannot afford employer-based health insurance. Further, solutions to the uninsured that build on the employer-based health insurance system also must address the gaps in health insurance coverage that occur with gaps in employment.

### **Lack of Health Insurance Disproportionately Affects Hispanics and African Americans**

Lack of health insurance coverage is a problem that affects people of all races and ethnic origins in this country. In fact, white, non-Hispanic people made up nearly half (48.1 percent) of people under the age of 65 without health insurance for all or part of the two-year period. However, African Americans and Hispanics are much more likely to be uninsured. Although only 23.5 percent of white, non-Hispanic people were uninsured, nearly three out of five of all non-elderly Hispanics (59.5 percent) and more than two in five of all non-elderly African Americans (42.9 percent) were uninsured. (See Table 6.)

Further, not only are Hispanics and African Americans more likely to be uninsured, they also experience longer spells of uninsurance compared to white, non-Hispanic people. Of the total number of uninsured Hispanics, 50.2 percent were uninsured for 13 months or more. Of the total number of uninsured African Americans, 34.1 percent were uninsured for 13 months or more. By contrast, of the total number of white, non-Hispanic people who were uninsured, only 24.2 percent were uninsured for 13 months or more. (See Table 9.)

Table 9

**Duration with Health Insurance during 2002-2003, by Race and Hispanic Origin**

| Months Uninsured | White, Non-Hispanic Uninsured |                                   | Black, Non-Hispanic Uninsured |                                   | Hispanic Uninsured |                                   |
|------------------|-------------------------------|-----------------------------------|-------------------------------|-----------------------------------|--------------------|-----------------------------------|
|                  | Number                        | As a Percent of Race/Ethnic Group | Number                        | As a Percent of Race/Ethnic Group | Number             | As a Percent of Race/Ethnic Group |
| 1-2 Months       | 3,893,000                     | 9.9%                              | 707,000                       | 5.2%                              | 830,000            | 3.7%                              |
| 3-5 Months       | 11,822,000                    | 30.0%                             | 4,278,000                     | 31.2%                             | 4,673,000          | 20.8%                             |
| 6-8 Months       | 5,756,000                     | 14.6%                             | 2,334,000                     | 17.0%                             | 2,937,000          | 13.1%                             |
| 9-12 Months      | 4,448,000                     | 11.3%                             | 1,715,000                     | 12.5%                             | 2,711,000          | 12.1%                             |
| 13-23 Months     | 7,852,000                     | 19.9%                             | 2,912,000                     | 21.2%                             | 5,834,000          | 26.0%                             |
| 24 Months        | 5,614,000                     | 14.3%                             | 1,774,000                     | 12.9%                             | 5,431,000          | 24.2%                             |
| Total*           | 39,386,000                    | 100.0%                            | 13,720,000                    | 100.0%                            | 22,416,000         | 100.0%                            |

\* Numbers do not add due to rounding.

Source: Estimates based on the Census Bureau's most recent CPS and SIPP data.

Why are the rates of uninsurance higher, and the spells of uninsurance longer, among Hispanics and African Americans? While employer-based health insurance coverage is the most common source of insurance for people under the age of 65 in the United States, our data show that, nevertheless, many uninsured people are in families with at least one member who is working. Hispanics and African Americans are disproportionately represented in low-wage jobs and jobs in sectors that are less likely to have health insurance benefits.<sup>9</sup> As a result, Hispanics and African Americans are more likely to work and not have health insurance benefits than are white, non-Hispanic people.

Uninsured Hispanics and African Americans are poorer than white, non-Hispanic uninsured people. Among uninsured Hispanics and uninsured African Americans, 82.9 and 80.0 percent, respectively, have family incomes below 300 percent of the federal poverty level (\$55,980 a year for a family of four in 2003). By contrast, among uninsured white, non-Hispanic people, 64.4 percent have incomes below 300 percent of the federal poverty level. (See Table 10.) Any solution to the uninsured must effectively target people with incomes below 300 percent of the federal poverty level if the solution is to reach the majority of uninsured Hispanics and African Americans.



Table 10

**People under 65 with Health Insurance during 2002-2003, by Income and Race**

| Family Income Relative to Poverty Level | White, Non-Hispanic Uninsured |                                   | Black, Non-Hispanic Uninsured |                                   | Hispanic Uninsured |                                   |
|---|-------------------------------|-----------------------------------|-------------------------------|-----------------------------------|--------------------|-----------------------------------|
|   | Number                        | As a Percent of Race/Ethnic Group | Number                        | As a Percent of Race/Ethnic Group | Number             | As a Percent of Race/Ethnic Group |
| ≤100%                                   | 7,705,000                     | 19.6%                             | 4,879,000                     | 35.6%                             | 6,673,000          | 29.8%                             |
| 101-199%                                | 9,792,000                     | 24.9%                             | 3,687,000                     | 26.9%                             | 7,785,000          | 34.7%                             |
| 200-299%                                | 7,850,000                     | 19.9%                             | 2,395,000                     | 17.5%                             | 4,130,000          | 18.4%                             |
| 300-399%                                | 5,246,000                     | 13.3%                             | 1,198,000                     | 8.7%                              | 1,827,000          | 8.1%                              |
| 400%+                                   | 8,794,000                     | 22.3%                             | 1,561,000                     | 11.4%                             | 2,002,000          | 8.9%                              |
| Total*                                  | 39,386,000                    | 100.0%                            | 13,720,000                    | 100.0%                            | 22,416,000         | 100.0%                            |

\* Numbers do not add due to rounding.

Source: Estimates based on the Census Bureau's most recent CPS and SIPP data.

## Variation in Uninsured Rates by Age

### Older Adults Less Likely to Be Uninsured

Our study found that uninsurance varies by age. Older adults are less likely to be uninsured than are younger adults. Table 7 shows that, of the 81.8 million uninsured people, 54.8 million were adults (18 to 64 years old). The likelihood of being uninsured declines for adults as they grow older. The likelihood of being uninsured was highest among 18- to 24-year-olds (50.3 percent) and 25- to 44-year-olds (32.9 percent). The likelihood of being uninsured declined for 45- to 54-year-olds and 55- to 64-year-olds—to 20.7 percent and 17.3 percent, respectively. Since two-thirds of insured people get health insurance coverage through an employer (either their own or that of a family member), this decline in the likelihood of being uninsured is probably explained by the tendency of adults to move to better compensated employment with health insurance benefits as they advance up the job ladder over time.

While the likelihood of being uninsured was highest for 18- to 24-year-olds, this age cohort accounted for only 17.0 percent of the total number of uninsured people. More than one-third (33.8 percent) of the uninsured were between 25 and 44 years of age; half (50.0 percent) were between 25 and 64 years of age.

Although older adults are less likely to be uninsured, they may have more difficulty obtaining coverage: People who do not have employer-based coverage and who must therefore rely on the individual market are less able to secure health insurance coverage as they age. Insurers often will not offer coverage to older people and, when they do, they may charge much higher premiums.<sup>10</sup> Thus, any solution that helps provide health insurance coverage to uninsured Americans must reach and work for middle-aged populations. Solutions that rely on the individual, private health insurance market without protections against health status and age underwriting (charging more for sicker and/or older people) will do little to ameliorate this country's crisis of uninsurance.

#### ■ **One-Third of Children Uninsured—But More Likely to Be Uninsured for Short Spells**

One of the most troubling findings from our study was the rate of uninsurance among children (under the age of 18)—36.7 percent of all children were uninsured. (See Table 7.) By comparison, the March 2003 CPS (which reports data for 2002) showed that only 8.5 million—or 11.6 percent—of the total number of children in the United States were uninsured.<sup>11</sup> While this difference is significant, it can be explained.

The numbers in the CPS purport to estimate the number of uninsured children uninsured for a *full year*. By comparison, the methodology of this report, which combines data from the CPS as well as the Census Bureau's Survey of Income and Program Participation, provides an estimate of the number of children uninsured for a full year *as well as* children uninsured for *shorter* periods of time. Uninsured children tend to experience shorter periods of uninsurance than adults.<sup>12</sup> More than two-thirds of insured children were uninsured for less than a full year (at least 65.3 percent were uninsured for less than nine months). (See Table 11.)

Why are children more likely to experience short spells of uninsurance than adults? Several reasons are likely. More than 16 million uninsured children were in families with incomes *below* 200 percent of the federal poverty level; these children should be eligible for their state's Medicaid or the State Children's Health Insurance Program (SCHIP).<sup>13</sup> (See Table 12.)

Table 11

**Duration of Uninsurance during 2002-2003, by Age**

| Months Uninsured, 2002-2003 | 0-17 Years, Uninsured |                           | 18-64 Years, Uninsured |                           |
|-----------------------------|-----------------------|---------------------------|------------------------|---------------------------|
|                             | Number                | As a Percent of Age Group | Number                 | As a Percent of Age Group |
| 1-2 Months                  | 1,867,000             | 6.9%                      | 3,926,000              | 7.2%                      |
| 3-5 Months                  | 10,856,000            | 40.2%                     | 11,755,000             | 21.4%                     |
| 6-8 Months                  | 4,916,000             | 18.2%                     | 7,141,000              | 13.0%                     |
| 9-12 Months                 | 3,235,000             | 12.0%                     | 6,398,000              | 11.7%                     |
| 13-23 Months                | 4,243,000             | 15.7%                     | 13,821,000             | 25.2%                     |
| 24 Months                   | 1,913,000             | 7.1%                      | 11,763,000             | 21.5%                     |
| <b>Total</b>                | <b>27,030,000</b>     | <b>100.0%</b>             | <b>54,804,000</b>      | <b>100.0%</b>             |

Source: Estimates based on the Census Bureau's most recent CPS and SIPP data.

Table 12

**All Uninsured Children (0-17 years) by Income, 2002-2003**

| Income (as a percent of federal poverty level) | Number of Uninsured Children | As a Percentage of Uninsured Children |
|--|------------------------------|---------------------------------------|
| ≤ 100%   | 8,063,000                    | 29.8%                                 |
| 101-199%                                       | 7,973,000                    | 29.5%                                 |
| 200-299%                                       | 4,806,000                    | 17.8%                                 |
| 300-399%                                       | 2,500,000                    | 9.2%                                  |
| 400%+  | 3,689,000                    | 13.6%                                 |
| <b>Total*</b>                                  | <b>27,030,000</b>            | <b>100.0%</b>                         |

\* Numbers do not add due to rounding.

Source: Estimates based on the Census Bureau's most recent CPS and SIPP data.

One explanation for the high rate of uninsurance among these children is movement on and off and back on Medicaid and SCHIP, which leaves a significant number of them uninsured for short periods of time. Sometimes called “churning,” this pattern of enrollment and disenrollment is caused by a number of factors. For example, some states have periodic eligibility review processes that a parent may not successfully navigate in a timely manner. Other states require families to pay monthly premiums to receive health services, and the inability of an unemployed or low-wage parent to pay these premiums can result in loss of SCHIP eligibility, at least temporarily, until the premium is paid.<sup>14</sup>

In addition, low-income children's access to health insurance coverage was affected by state actions taken during 2002-2003 in response to fiscal crises and the resulting pressure to reduce state Medicaid budgets. Not only did many states act to increase the barriers to enrollment and eligibility review such as those described above, but six states—Alabama, Colorado, Florida, Maryland, Montana, and Utah—also stopped enrolling eligible children in their State Children's Health Insurance Programs.<sup>15</sup>

Families with incomes *above* 200 percent of the federal poverty level primarily rely on employer-based coverage that includes coverage for dependents. Certainly, some children in moderate-income families are uninsured because their parents have lower-wage or other jobs that do not offer health insurance benefits or do not include coverage of dependents in those benefits. Table 13 shows that two out of five uninsured children (39.9 percent) are in families where one parent worked full time for *all* 24 months in the 2002-2003 period.

Table 13

**All Uninsured Children (0-17 years) by Family Work Status, 2002-2003**

| Employment Status                         | Uninsured Children | As a Percentage of Uninsured Children |
|---|--------------------|---------------------------------------|
| Employed Full-Time All 24 Months          | 10,778,000         | 39.9%                                 |
| Employed at Least Part-Time All 24 Months | 574,000            | 2.1%                                  |
| Unemployed at Least One Month             | 14,504,000         | 53.7%                                 |
| Not in Labor Force                        | 1,174,000          | 4.3%                                  |
| <b>Total</b>                              | <b>27,030,000</b>  | <b>100.0%</b>                         |

Source: Estimates based on the Census Bureau's most recent CPS and SIPP data.

In addition, children in families with incomes *above* 200 percent of the federal poverty level may be exposed to shorter spells of uninsurance when their parents experience job changes that affect their access to employer-based health coverage for dependents. For example, a parent may be unemployed for short periods between jobs during which the family's income is not reduced sufficiently for the child to qualify for public program coverage, or a parent may move in and out of several jobs that do not provide health coverage at all or coverage for dependents. Table 13 shows that more than half (53.7 percent) of uninsured children were in families that were unemployed for at least one month.

Other short-term changes in parents' work status also can affect children's health insurance coverage. For example, a parent may reduce his or her work hours and lose employer-based coverage or may have an increase in earnings that disqualifies the child for Medicaid or SCHIP health coverage. In many working families, these changes are not unusual as parents struggle to balance work and family responsibilities, cope with the high cost and often limited availability of child care, and hold down multiple jobs that help make ends meet but that put them above public program income eligibility. This instability in employment directly creates instability in health insurance coverage.<sup>16</sup>

## CONCLUSION

As we have shown in this report, a very high proportion of non-elderly Americans were uninsured for at least one month over a two-year period. Approximately 81.8 million Americans—one out of every three non-elderly people—were uninsured at some point in time during 2002-2003, and two-thirds of these uninsured people were uninsured for six or more months. And, although the majority of insured Americans receive their health insurance through their jobs, four out of five of these uninsured individuals were workers or members of working families. Minorities and people with low incomes are at significantly higher risk of being uninsured.

People who go without health insurance—even for brief periods of time—can face devastating consequences to their health and their economic security. Concrete action to tackle the mounting problem of uninsured Americans should be a national priority.

## WHY INSURANCE MATTERS

### 1 The uninsured are less likely to have a usual source of care outside the emergency room:

- Uninsured Americans are up to four times less likely to have a regular source of care than the insured. Uninsured children are nearly eight times less likely to have a regular source of care than insured children.<sup>17</sup>
- Uninsured adults are four times more likely than insured adults to use the emergency room as a regular place of care. Similarly, uninsured children are five times more likely to use the emergency room as a regular place of care.<sup>18</sup>
- Two-thirds of all care delivered to uninsured Americans is delivered by hospitals.<sup>19</sup>

### 2 The uninsured often go without screenings and preventive care:

- Uninsured adults are more than 30 percent less likely than insured adults to have had a checkup in the past year.<sup>20</sup> Uninsured adults are also more likely to go without diabetes management.<sup>21</sup> One study found that 46 percent of uninsured diabetics were unable to seek medical assistance when they needed it due to the high cost of care.<sup>22</sup>
- Long-term uninsured adults are three to four times more likely than insured adults to go without preventive services such as breast cancer or hypertension screening.<sup>23</sup> Largely due to belated diagnoses, uninsured people with cancer are generally in poorer health and are more likely to die prematurely than insured people with cancer.<sup>24</sup>
- Among all uninsured men under age 65, 12 percent received a prostate exam, compared to 20 percent of insured men. Among uninsured women under age 65, only 49 percent received a pap smear, compared to 76 percent of insured women.<sup>25</sup> Seventy-one percent of insured women over the age of 40 reported having a mammogram in the previous year, compared with only 46 percent of uninsured women in that age group.<sup>26</sup>
- Uninsured adults are likely to be diagnosed with a disease at a later stage. Once diagnosed, the uninsured tend to receive less therapeutic care (drugs, surgical interventions) than the insured.<sup>27</sup>

### 3 The uninsured often delay or forgo needed medical care:

- Uninsured adults are more likely than insured adults to put off or delay seeking medical care (39 percent versus 10 percent).<sup>28</sup>
- Nearly 70 percent of uninsured adults in poor health, and nearly 50 percent of uninsured adults in fair health, reported that they were unable to see a physician in the past year when they needed to because of the high cost of care.<sup>29</sup>
- Uninsured people with chronic health conditions receive less care than their insured counterparts. Uninsured people with heart disease have 28 percent fewer ambulatory care visits (in physicians' offices, clinics, or hospital outpatient settings) than insured people with heart disease. Among people with hypertension, the uninsured make 26 percent fewer visits. Among people with chronic back pain, the uninsured make 19 percent fewer visits. Among people with arthritis, the uninsured make 27 percent fewer visits.<sup>30</sup>

## 4 The uninsured are often subject to avoidable hospital stays:

- The rate of unnecessary hospital stays for uninsured adults more than doubled from 1980 to 1998. For uninsured people in 1998, an estimated 11.6 percent of hospital stays could have been avoided if the person had received treatment earlier.<sup>31</sup>
- The average cost of an unnecessary hospitalization for an uninsured adult was \$3,300 in 2002.<sup>32</sup>

## 5 Uninsured Americans are sicker and die earlier than those who have insurance:

- Every year, the deaths of 18,000 people between the ages of 25 and 64 can be attributed to a lack of insurance coverage. This makes uninsurance the sixth leading cause of death, ahead of HIV/AIDS and diabetes.<sup>33</sup>
- Based on a thorough review of health outcome studies, the Institute of Medicine concluded that uninsured adults were 25 percent more likely to die prematurely than adults with private health insurance coverage.<sup>34</sup>
- Uninsured patients are three times more likely to die in the hospital than insured patients.<sup>35</sup> Moreover, when admitted, uninsured patients are more likely to receive fewer services and to experience second-rate care than insured patients.<sup>36</sup> Even though admission rates for uninsured and insured adults are roughly equal, the uninsured receive half as many surgeries as the insured.<sup>37</sup>
- When hospitalized, uninsured patients are likely to be in worse condition than insured patients.<sup>38</sup> Uninsured adults have a greater chance of experiencing a major health decline than insured adults.<sup>39</sup>

## 6 Medical care is more costly for the uninsured, and costs are higher for the American health care system:

- Uninsured Americans received approximately \$35 billion in “uncompensated care” (care for which the provider was not paid) in 2001.<sup>40</sup>
- The uninsured are often charged more for health services than people with insurance. Major insurers, including Medicare and Medicaid, negotiate big discounts with hospitals and other providers, who then compensate by raising prices for the uninsured.<sup>41</sup>
- While half (51 percent) of uninsured adults state that health insurance ranks high as a priority for their personal budgets, 40 percent of all uninsured people state they would have to cut back on necessary items such as food, rent, and utility bills to buy health insurance.<sup>42</sup>
- Nearly 40 percent of uninsured adults reported problems paying their medical bills.<sup>43</sup>
- When the uninsured can no longer avoid obtaining care from professional health care providers, they borrow money to pay costs up front, work more than one job, charge credit cards for large health care bills that will take years to repay, or eventually file for bankruptcy.<sup>44</sup>
- Insurance has important health and financial consequences for everyone. When the uninsured rely on emergency instead of preventive care, access is limited for all Americans, productivity is reduced, and costs are added to the health care system.<sup>45</sup>



## ENDNOTES

<sup>1</sup> Kaiser Commission on Medicaid and the Uninsured, *The Uninsured and Their Access to Health Care* (Washington: Kaiser Commission on Medicaid and the Uninsured, December 2003).

<sup>2</sup> The Henry J. Kaiser Family Foundation and Health Research and Educational Trust, *Employer Health Benefits, 2003 Annual Survey* (Menlo Park, California: The Henry J. Kaiser Family Foundation, 2003).

<sup>3</sup> Peter J. Cunningham, Elizabeth Schaefer, and Christopher Hogan, *Issue Brief: Who Declines Employer-Sponsored Health Insurance and Is Uninsured?* Number 22 (Washington: Center for Studying Health System Change, October 1999). This report of a 1996-1997 survey found that, of workers with access to employer-provided health insurance coverage, 14 percent were not enrolled. Most of those not enrolled had other coverage—Medicaid, other public coverage, or private insurance purchased directly or provided by someone outside the family. However, one-third of the workers who did not enroll in employer-based coverage were uninsured, an estimated 5 percent of all persons with access to employer-based coverage. Among low-income persons (with family incomes below the poverty level) with access to employer-based coverage, 19 percent were uninsured. This report estimates that about 20 percent of all uninsured people have access to employer-based coverage but do not enroll.

<sup>4</sup> Further analysis will be necessary to determine how many of these uninsured individuals were in families with incomes significantly higher than 400 percent of poverty. Also, further analysis is needed to determine the duration of periods without health insurance for higher-income populations. Possible explanations for why moderate- and higher-income workers are uninsured should be explored include the following: How many moderate-income workers did not have offers of employer-based health insurance coverage? How many moderate-income workers experienced periods of unemployment and could not afford to take advantage of their COBRA option to continue employer-based coverage at the full cost? How many moderate-income workers were part-time, temporary, or contract workers who did not qualify to participate in their employers' health insurance plans? For all of these categories of workers without employer-based coverage, was health insurance available through the individual market, or did a preexisting condition, health status, or age prevent them from having any (or any reasonable) offers of coverage?

<sup>5</sup> Marc Steinberg, *Working without a Net: The Health Care Safety Net Still Leaves Millions of Low-Income Workers Uninsured*, Special Report (Washington: Families USA, April 2004).

<sup>6</sup> COBRA, the 1985 *Consolidated Omnibus Budget Reconciliation Act*, allows certain workers leaving their jobs to retain coverage under their former employers' insurance plans for a fixed period of time (usually 18 months) by paying the entire premium cost plus 2 percent for administrative expenses. COBRA only creates this right for workers in firms with 20 or more employees. Often, similar state laws cover smaller employers. For a brief description of COBRA and a table of state COBRA-like laws, see Kathleen Stoll, *More than 725,000 Laid-Off Workers Have Lost Health Coverage Since the Recession Began in March*, Special Report (Washington: Families USA, December 2001).

<sup>7</sup> Stephen Zuckerman, Jennifer Hale, and Matthew Fragale, *Could Subsidizing COBRA Health Insurance Coverage Help Most Low-Income Unemployed?* (Washington: Urban Institute, October 2001).

<sup>8</sup> The Henry J. Kaiser Family Foundation and Health Research and Educational Trust, op. cit.

<sup>9</sup> Research by Richard Brown and his colleagues at the UCLA Center for Health Policy Research shows that African American and Hispanic workers have lower employment-based coverage rates than white workers across all firm sizes, industries, and employment sectors. For example, non-Hispanic whites who work in small firms are twice as likely to be offered health insurance as are Hispanic workers. Among higher-coverage sectors such as manufacturing and professional services, 72 percent of African Americans are covered, compared to 86 percent of non-Hispanic whites. See E. Richard Brown, Victoria D. Ojeda, Roberta Wyn, and Rebecca Levan, *Racial and Ethnic Disparities in Access to Health Insurance and Health Care* (Los Angeles: UCLA Center for Health Policy Research and The Henry J. Kaiser Family Foundation, April 2000). See also Michelle M. Doty and Alyssa L. Holmgren, *Unequal Access: Insurance Instability Among Low-Income Workers and Minorities* (New York: The Commonwealth Fund, April 2004). Analyzing data from 1996 to 1999 shows that most low-income adults worked during the four years, but many had no or only intermittent job-based health insurance coverage. Doty and Holmgren report that "Low-income Hispanic adults were particularly hard hit: more than one-third (37 percent) of this group were never insured with private coverage, even though they worked all four years."

<sup>10</sup> See Kathleen Stoll, *A 10-Foot Rope for a 40-Foot Hole: Tax Credits for the Uninsured, 2002 Update* (Washington: Families USA, May 2002); see also Karen Pollitz, Richard Soriano, and Kathy Thomas, *How Accessible Is Individual Health Insurance for Consumers in Less-Than-Perfect Health?* (Washington: The Henry J. Kaiser Family Foundation, June 2001).

<sup>11</sup> Robert J. Mills and Shailesh Bhandan, *Health Insurance Coverage in the United States: 2002* (Washington: U.S. Census Bureau, September 2003).



<sup>12</sup> Jennifer Haley and Stephen Zuckerman, *Is Lack of Coverage a Short- or Long-Term Condition?* (Washington: Kaiser Commission on Medicaid and the Uninsured, June 2003). This study confirms the overall trend that adults are more likely to have long-term uninsured spells and less likely to have short-term uninsured spells compared to children.

<sup>13</sup> SCHIP was enacted in 1997. The enactment of SCHIP gave states \$40 billion over 10 years to provide health coverage for low-income, uninsured children who live in families that earn too much to qualify for Medicaid but not enough to afford private insurance. Today, all 50 states and the District of Columbia have SCHIP programs. As of April 2003, in 39 states and the District of Columbia, the SCHIP eligibility level was at least 200 percent of poverty. In the remaining 11 states, the eligibility levels in nine were above 150 percent, and in six states, the level was 185 percent or higher: Colorado covers children up to 185 percent of the federal poverty level; Idaho, up to 150 percent; Illinois, up to 185 percent (except for infants under the age of one, who are covered up to 200 percent); Montana, up to 150 percent; Nebraska, up to 185 percent; North Dakota, up to 140 percent; Oklahoma, up to 185 percent; Oregon, up to 185 percent; South Carolina, up to 150 percent (except for infants under the age of one, who are covered up to 185 percent); Wisconsin, up to 185 percent; and Wyoming, up to 133 percent. See The Henry J. Kaiser Family Foundation, *SCHIP Program Enrollment: June 2003 Update* (Washington: The Kaiser Commission on Medicaid and the Uninsured, December 2003).

<sup>14</sup> See Pamela Farley Short, Deborah R. Graefe, and Cathy Schoen, *Churn, Churn, Churn: How Instability of Health Insurance Shapes America's Uninsured Problem* (New York: The Commonwealth Fund, November 2003); Jennifer Haley and Stephen Zuckerman, *op. cit.*; and Rachel Klein, *Promising Ideas in Children's Health Insurance* (Washington: Families USA, May 2001).

<sup>15</sup> See Vernon Smith, et al., *States Respond to Fiscal Pressure: A 50-State Update of State Medicaid Spending Growth and Cost Containment Actions* (Washington: Kaiser Commission on Medicaid and the Uninsured, January 2004); Donna Cohen Ross and Laura Cox, *Preserving Recent Progress on Health Coverage for Children and Families: New Tensions Emerge – A 50 State Update on Eligibility, Enrollment, Renewal and Cost-Sharing Practices in Medicaid and SCHIP* (Washington: Kaiser Commission on Medicaid and the Uninsured, July 2003); and Donna Cohen Ross and Laura Cox, *Out in the Cold: Enrollment Freezes in Six State Children's Health Insurance Programs Withhold Coverage from Eligible Children* (Washington: Center on Budget and Policy Priorities, January 15, 2004).

<sup>16</sup> See Pamela Farley Short, Deborah R. Graefe and Cathy Schoen, *op. cit.*; Jennifer Haley and Stephen Zuckerman, *op. cit.*

<sup>17</sup> American College of Physicians-American Society of Internal Medicine, *No Health Insurance? It's Enough to Make You Sick* (Philadelphia: American College of Physicians-American Society of Internal Medicine, November 1999).

<sup>18</sup> *Ibid.*

<sup>19</sup> Hadley, J. and Holahan, J., "How Much Medical Care Do The Uninsured Use, And Who Pays For It?" *Health Affairs* Web Exclusive, February 12, 2003.

<sup>20</sup> The Henry J. Kaiser Family Foundation, *The Uninsured and Their Access to Health Care* (Washington: Kaiser Commission on Medicaid and the Uninsured, May 2000).

<sup>21</sup> John Z. Ayanian, M.D., M.P.P., Joel S. Weissman, Ph.D., Eric C. Schneider, M.D., M.Sc., Jack A. Ginsburg, M.P.E., and Alan M. Zaslavsky, Ph.D., "Unmet Health Needs of Uninsured Adults in the United States," *Journal of the American Medical Association* 284, no. 16 (25 October 2000): 2061-2069.

<sup>22</sup> *Ibid.*

<sup>23</sup> *Ibid.*

<sup>24</sup> Institute of Medicine, *Care Without Coverage: Too Little, Too Late* (Washington: National Academy Press, 2002).

<sup>25</sup> *The NewsHour with Jim Lehrer/Kaiser Family Foundation National Survey on the Uninsured, 2000*, available online at ([www.pbs.org/newshour/health/uninsured](http://www.pbs.org/newshour/health/uninsured)).

<sup>26</sup> Centers for Disease Control, National Center for Chronic Disease Prevention and Health Promotion, "WISEWOMAN: Improving the Health of Uninsured Women, At a Glance 2004," available online at ([www.cdc.gov/nccdphp/aag/aag\\_wisewoman.htm](http://www.cdc.gov/nccdphp/aag/aag_wisewoman.htm)). Downloaded on May 3, 2004.

<sup>27</sup> Jack Hadley, Ph.D., *Sicker And Poorer: The Consequences of Being Uninsured, A Review of the Research on the Relationship between Health Insurance, Health, Work, Income and Education* (Washington: Kaiser Commission on Medicaid and the Uninsured, May 2002).

<sup>28</sup> *The NewsHour with Jim Lehrer/Kaiser Family Foundation National Survey on the Uninsured, 2000*, *op. cit.*

<sup>29</sup> John Z. Ayanian, et al., *op. cit.*

<sup>30</sup> Cheryl Fish-Parcham, *Getting Less Care: The Uninsured with Chronic Health Conditions* (Washington: Families USA, February 2001).

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**TECHNICAL APPENDIX:**  
**Estimating Lack of Health Insurance  
at the State Level at Any Time in 2002 or 2003**

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## METHODOLOGY: EXECUTIVE SUMMARY

The Lewin Group estimated the number of individuals under age 65 without health insurance for at least one month over the 2002 to 2003 period by combining several data sources. National estimates were based primarily on the 2001 Panel of the Survey of Income and Program Participation (SIPP). The SIPP was chosen because of its large sample size and state identifiers. National estimates from the SIPP were trended forward by one year using a small aggregate adjustment reflecting a conservative assumption of insurance trends based on historical data.

State-level estimates were derived by applying a set of SIPP-derived regression equations to data from the March 2003 Current Population Survey (CPS). The CPS provides the most recent data on health insurance coverage, employment, income, and population estimates, and it supports state-level estimates.

The logistic regression models predicted whether an individual would not have health insurance for at least one month over a 24-month period from the beginning of February 2001 to the end of January 2003. Separate equations were estimated for children and non-elderly adults. In addition to demographic and socioeconomic variables directly in the CPS, we added state-level variables to reflect changes in Medicaid coverage for children through the end of 2003.

Because the SIPP data provided recent, direct estimates of uninsurance over a two-year period, we calibrated the state-level results from the logistic regression models to agree with the national estimates from the SIPP, trended forward one year in the aggregate.

### I. Introduction

For this report, we developed state-level estimates of the number of individuals who did not have health insurance at any point over a two-year period and those without insurance for six months or more over a two-year period. We produced separate estimates for children (younger than 18) and non-elderly adults (ages 18 to 64). We also produced tables showing the number and proportion of uninsured by selected characteristics.

There are several methods for estimating the number of uninsured persons. A point-in-time estimate reports the number of people who are without health insurance at one point in time (e.g., on a given day or in a given month). Alternatively, an estimate over a period of time reports the number of people who are without health insurance at any time during the period (e.g., during the last year).

We used an estimate of the uninsured over a period of time for both analyses for several reasons. First, because many of the uninsured are without insurance for a short period of time, a point-in-time estimate understates the population at risk of being without health insurance. Second, estimates based on individuals uninsured over a period of time provide a

more accurate representation of all of the people who lose their insurance. This is because a point-in-time estimate will contain a disproportionate share of people who were uninsured for a long period of time, and these individuals often have a different mix of characteristics than those who are uninsured for a short period of time (Swartz, 1990).

For these analyses, we used the 2001 Panel of the Survey of Income and Program Participation (SIPP) and the March Annual Supplement of the 2003 Current Population Survey (CPS). We used the 2001 SIPP because it contains the most recent data that provide monthly insurance information longitudinally over a two-year period. We used the CPS because it provides the most recent state-level estimates. Both surveys are nationally representative and contain basic demographic and economic characteristics of the non-institutionalized population. The 2001 SIPP contains 36 months of data, from which we used records for individuals with 24 months of data spanning 2001 and 2002. This file contained approximately 55,000 individuals, of which about 33,000 were non-elderly adults and 14,000 were children. The 2003 CPS contained data on approximately 217,000 individuals, of which about 129,000 were non-elderly adults and 67,000 were children.

## II. State-Level Estimates

There are no reliable state-level estimates of health insurance coverage over a period of time. Although the SIPP allows estimates over a period of time and specifically captures coverage of dependents, its sample does not support state-level estimates (although it includes state identifiers for analytic purposes). The CPS allows state-level estimates, and the March 2003 CPS reflects an augmented sample, which allows greater statistical accuracy for state-level estimates. The CPS asks whether an individual was covered at any time over the prior year by each of the following: Medicare, Medicaid, private health insurance, or military health plan.<sup>1</sup> Combining the questions allows one to count individuals who, in theory, were not covered by any type of insurance during the year. The resulting estimate, which should be a period-of-time estimate, actually appears to be more comparable to a point-in-time estimate generated from the SIPP than to an all-year estimate (see Table 1).

Appendix Table 1

### 1999 Estimates of the Prevalence of Uninsurance among Persons under Age 65

| Data Source                                | Percent Uninsured All Year | Percent Uninsured at Any Time during the Year | Percent Uninsured at a Point in Time |
|--|----------------------------|---|--------------------------------------|
| Current Population Survey                  | 15.9%                      | n/a   | n/a                                  |
| Survey of Income and Program Participation | 8.5% <sup>a</sup>          | 25.4% <sup>a</sup>                            | 16.6% <sup>b</sup>                   |
| Medical Expenditure Panel Survey           | 12.2%                      | 25.0%   | 17.3%                                |

<sup>a</sup> Calculated using longitudinal weight for year 2001.

<sup>b</sup> Calculated using monthly weight for month 24, roughly representing January 2003.

**Note:** The Medical Expenditure Panel Survey (MEPS) asks about health insurance status in each quarter over a one-year period.

Some researchers have hypothesized that the CPS may be closer to a point-in-time estimate because individuals interviewed may be reporting their current health insurance status rather than their coverage over the past year (Nelson and Short, 1990 and Swartz, 1994). However, Robert Bennefield of the Bureau of the Census argued that the CPS primarily appears to underreport insurance coverage in general, resulting in higher than expected reporting of the percent uninsured (Bennefield, 1996). However, a verification question added to the CPS beginning in 2001 only modestly reduced the CPS uninsured estimate (e.g., from 17.4% to 16.1% in the March 2002 CPS). Given that the point-in-time prevalence of uninsurance from the SIPP was much closer to the CPS prevalence rate than the uninsured-all-year estimate from the SIPP, we chose to treat the CPS data as point-in-time estimates in order to generate our over-period-of-time estimates.

### A. SIPP Equations

In order to use the state-level information available from the CPS to generate estimates of the lack of health insurance for one or more months among those with health insurance at a point in time, we estimated logistic regression equations that describe the relationship between an individual's characteristics at a point in time and his or her health insurance status over the course of two years. We generated these equations using data from the SIPP. *Table 2* presents selected characteristics of the population insured at a point in time from the SIPP and CPS files used in the analysis.

The 2001-2002 SIPP file necessarily includes individuals with data over the two-year period from 2001 to 2002. Survey dropouts and additions over the period tend to distort the sample, and weights specific to the two-year period from 2001 to 2002 (which would adjust for these missing respondents) were not available from the Census Bureau at the time of analysis. This posed a potential problem because lack of insurance may be more common among survey dropouts, whose lives may be more transient and subject to dislocation (as demonstrated by their lack of continued participation in the survey). We therefore used the most appropriate weight available—the one-year longitudinal weight representing the first 12 months of the two-year analysis period—and adjusted it by age, sex, race, and income group to match the population in March 2003.<sup>2</sup> Adjusting the weights this way mitigates the bias in health insurance coverage caused by survey dropouts because health insurance coverage is also correlated with the factors used to adjust the weights. Moreover, the regression equations include these same factors and therefore control for them. We note that results from the logistic regression equations were very similar with and without the weights, suggesting that the bias produced by survey dropouts is minimal.<sup>3</sup>

Appendix Table 2

**Comparison of SIPP and CPS Data Used in Model Characteristics of People <65 without Health Insurance at a Point in Time**

|  | SIPP 2001-2002 <sup>a</sup> | CPS March 2003 <sup>b</sup> |
|--|-----------------------------|-----------------------------|
| <b>Age</b>   |                             |                             |
| Less than 6  | 7.9%                        | 6.0%                        |
| 6 to 17  | 17.1%                       | 13.7%                       |
| 18 to 34   | 38.4%                       | 41.3%                       |
| 35 to 64   | 36.5%                       | 38.9%                       |
| <b>Family Income as Percent of Federal Poverty Threshold</b> |                             |                             |
| <100%  | 29.4%                       | 26.3%                       |
| 100-199%   | 31.3%                       | 28.7%                       |
| 200-299%   | 18.3%                       | 18.4%                       |
| 300-399%   | 9.3%                        | 10.1%                       |
| 400%+  | 11.5%                       | 16.3%                       |
| <b>Race</b>  |                             |                             |
| White, non-Hispanic  | 49.6%                       | 47.7%                       |
| Black, non-Hispanic  | 15.2%                       | 15.7%                       |
| Hispanic   | 29.2%                       | 29.2%                       |
| Other Race   | 5.8%                        | 7.2%                        |

<sup>a</sup> Based on 2001-2002 SIPP sample, weighted using monthly weight for month 24.

<sup>b</sup> Model assumes that estimate of lack of insurance from March 2003 CPS represents a point-in-time measure for March 2003.

Because we are using the CPS as a point-in-time insurance estimate, we assume that people indicating no coverage in the March 2003 CPS lacked coverage in March of 2003. Using March 2003 as a proxy for the end of calendar year 2002, we already know that all individuals reporting a lack of coverage in the March 2003 CPS are uninsured for at least one month over the two-year reference period. Thus, we exclude these individuals from the 1+ month equations and leave the equation to predict which of those who have coverage at the end of 2003 lack it at some other point during the previous two years. In contrast, all records are used for the 6+ month equations, and lack of insurance at the end of the year is used to predict lack of insurance for 6+ months.



We estimated four separate equations from the SIPP to predict the following outcomes:

- Children uninsured 1+ months over two years
- Children uninsured 6+ months over two years
- Adults uninsured 1+ months over two years
- Adults uninsured 6+ months over two years

We estimated separate equations for children and adults because children's insurance coverage has been driven in recent years by changes in State Children's Health Insurance Programs (SCHIP). These equations perform two functions. First, applying them to the CPS allows us to generate state-level, over-time estimates of uninsurance from the (assumed) point-in-time information available from the CPS. Second, by incorporating key state-level variables that influence insurance coverage (i.e., unemployment and SCHIP enrollment), the equations allow us to reflect insurance trends through the end of 2003.

Table 3 summarizes the samples and variables used for each equation. The equations use a combination of variables representing characteristics of individuals, their parents (for children), and their state. The following variables represent the characteristics of the individual in all equations:

- **Age (0-5, 6-16, 17, 18-20, 21-34, 35-60, 61-64)** Age groups were chosen to correspond to likely differences in availability of insurance by age. For example, Medicaid eligibility in some states is more restrictive for children ages 6-16 than for children ages 0-5, and more restrictive still for children above 16.
- **Family income as a percent of the Federal Poverty Threshold (<= 100%, 101-199%, 200%+)** Family income is the same for all members of a family. The poverty level used is the Federal Poverty Threshold, which is the measure typically used for statistical reporting of poverty rates.
- **Race/ethnicity** (white/non-Hispanic, black/non-Hispanic, Hispanic, other)
- **Sex** (male/female)
- **Education** (less than high school diploma, high school diploma [including some college], college degree or higher) For children, if both parents have the same employment status, education represents the education of the most educated parent. If one parent is employed and the other is not, education represents the education of the working parent.

The following state-level variables were added to the SIPP to capture characteristics of an individual's state that could affect his/her likelihood of having insurance:

- **Children's Medicaid coverage** (continuous variable) This variable is important because changes in Medicaid coverage for children between 2002 and 2003 varied considerably by state as SCHIP coverage expanded in some states and contracted in others (see Appendix Table 4). We calculated annual children's Medicaid enrollment as a percentage of children in the state with family income below 200 percent of the Federal Poverty Threshold. This measure is meant to capture states' progress in covering low-income children through the end of 2003. Enrollment includes standard Medicaid plus State Children's Health Insurance Programs. To calculate, we sum enrollment estimates and counts of the number of children covered by SCHIP plans that are not already part of the state Medicaid plan. We then divided by the estimated number of children below 200 percent of the Federal Poverty Threshold from the CPS to calculate enrollment rates in the general target population. This measure may not, and is not meant to, resemble states' own estimates of children's Medicaid enrollment rates. For example, combining annual enrollment counts with point-in-time estimates from CPS tends to systematically inflate enrollment rates. This bias should have no meaningful effect on the projected estimates or states' rankings because it is consistent across all states and between years.
- **Employment status** (Employed, Unemployed, Not in Labor Force) We used employment at the end of the period.

Explanatory variables were generally only kept in the modeling equations if they were significant at the 0.05 level. For example, in the children equation, employment was significant in the 1+ month equation but not significant in the 6+ month equation. The resulting coefficients for the four equations are described in Tables 6 and 7.

In each case, the probability that an individual lacks health insurance (for 1+ or 6+ months) in 2001-2002 is:

$$e^y/(1+e^y)$$

Appendix Table 3

### Samples and Variables Used for Logistic Regression Equations from SIPP Predicting Lack of Insurance over 24 Months

|   | Children   |  | Adults   |  |
|---|--|--|--|--|
|   | Uninsured<br>1+ Months   | Uninsured<br>6+ Months   | Uninsured<br>1+ Months   | Uninsured<br>6+ Months   |
| Sample  | Sample: Children (age <18) with health insurance in month 24   | Sample: Children (age <18) with health insurance   | Sample: Adults (age 18-64) in month 24   | Sample: Adults (age 18-64)   |
| Dependent Variable                                | Uninsured any time over 2 years  | Uninsured for 6+ months over 2 years   | Uninsured any time over 2 years  | Uninsured for 6+ months over 2 years   |
| Independent Variables:                            |  |  |  |  |
| Age   | 0-5<br>6-16*<br>17   | 0-5*<br>6-16<br>17*  | 18-20<br>21-24<br>25-34<br>35-60*<br>61-64   | 18-20<br>21-24<br>25-34<br>35-60*<br>61-64   |
| Family Income (as % of Federal Poverty Threshold) | <100%<br>100-199%<br>200%+ *   | <100%<br>100-199%<br>200%+ *   | <100%<br>100-199%<br>200%+ *   | <100%<br>100-199%<br>200%+ *   |
| Race/Ethnicity                                    | White, non-Hispanic*<br>Black, non-Hispanic<br>Hispanic<br>Other   | White, non-Hispanic*<br>Black, non-Hispanic<br>Hispanic<br>Other   | White, non-Hispanic*<br>Black, non-Hispanic<br>Hispanic<br>Other   | White, non-Hispanic*<br>Black, non-Hispanic<br>Hispanic<br>Other   |
| Sex   | <Not used>   | <Not used>   | Male   | Male   |
| Education   | Parent has less than high school diploma<br>Parent is a high school graduate<br>Parent is a college graduate*<br>(Note: Child assigned education of the more highly educated parent or education of employed parent if only one parent employed) | Parent has less than high school diploma<br>Parent is a high school graduate<br>Parent is a college graduate*<br>(Note: Child assigned education of the more highly educated parent or education of employed parent if only one parent employed) | Individual has less than high school diploma<br>Individual has high school diploma<br>Individual has college degree or higher* | Individual has less than high school diploma<br>Individual has high school diploma<br>Individual has college degree or higher* |
| Employment Status                                 | Employed @ month 24*<br>Unemployed @ month 24<br>Not in labor force*   | < Not used>  | Employed @ month 24*<br>Unemployed @ month 24<br>Not in labor force*   | <Not used>   |
| Health Coverage Status for Month 24               | < Not used>  | Uninsured for month 24   | < Not used>  | Uninsured for month 24   |
| Medicaid Coverage                                 | % of children in state < 200% of the Federal Poverty Threshold enrolled in Medicaid/SCHIP annually   | % of children in state < 200% of the Federal Poverty Threshold enrolled in Medicaid/SCHIP annually   | <Not used>   | <Not used>   |

\* Indicates reference group omitted from equation.

Appendix Table 4

**Annual % of Children < 200% Federal Poverty Level Enrolled in Medicaid (including SCHIP)**

| State                | 2002   | 2003   |
|----------------------|--------|--------|
| Alabama              | 82.5%  | 80.9%  |
| Alaska               | 113.5% | 113.3% |
| Arizona              | 79.3%  | 78.3%  |
| Arkansas             | 85.0%  | 84.3%  |
| California           | 91.1%  | 92.1%  |
| Colorado             | 60.7%  | 66.1%  |
| Connecticut          | 89.5%  | 90.0%  |
| Delaware             | 108.1% | 107.8% |
| District of Columbia | 121.6% | 123.0% |
| Florida              | 84.4%  | 88.6%  |
| Georgia              | 92.5%  | 95.3%  |
| Hawaii               | 73.4%  | 74.9%  |
| Idaho                | 69.1%  | 68.4%  |
| Illinois             | 81.6%  | 86.1%  |
| Indiana              | 89.6%  | 90.7%  |
| Iowa                 | 74.4%  | 75.7%  |
| Kansas               | 75.9%  | 77.7%  |
| Kentucky             | 101.4% | 101.2% |
| Louisiana            | 92.0%  | 97.0%  |
| Maine                | 83.1%  | 89.7%  |
| Maryland             | 121.0% | 121.7% |
| Massachusetts        | 106.4% | 108.2% |
| Michigan             | 87.2%  | 87.7%  |
| Minnesota            | 95.3%  | 95.5%  |
| Mississippi          | 102.0% | 104.6% |
| Missouri             | 132.2% | 132.2% |
| Montana              | 56.2%  | 55.1%  |
| Nebraska             | 97.7%  | 116.2% |
| Nevada               | 39.8%  | 43.0%  |
| New Hampshire        | 98.9%  | 101.7% |
| New Jersey           | 88.8%  | 88.8%  |
| New Mexico           | 106.1% | 104.6% |
| New York             | 73.5%  | 73.0%  |
| North Carolina       | 84.0%  | 86.9%  |
| North Dakota         | 56.8%  | 58.0%  |
| Ohio                 | 90.0%  | 92.3%  |
| Oklahoma             | 111.8% | 113.4% |
| Oregon               | 76.2%  | 75.9%  |
| Pennsylvania         | 80.2%  | 81.5%  |
| Rhode Island         | 120.1% | 126.8% |
| South Carolina       | 115.8% | 117.6% |
| South Dakota         | 92.8%  | 92.8%  |
| Tennessee            | 114.3% | 112.2% |
| Texas                | 63.2%  | 62.6%  |
| Utah                 | 48.4%  | 49.2%  |
| Vermont              | 161.8% | 162.9% |
| Virginia             | 63.9%  | 66.1%  |
| Washington           | 101.2% | 100.3% |
| West Virginia        | 91.1%  | 91.0%  |
| Wisconsin            | 78.4%  | 80.6%  |
| Wyoming              | 76.2%  | 75.8%  |

**Note:** Some states exceed 100 percent because 1) eligibility has been extended to children with incomes greater than 200 percent of the Federal Poverty Threshold, and 2) the numerator represents enrollment over a one-year period while the denominator represents population at a point in time.

**Source:** Lewin analysis of annual enrollment data for Medicaid and SCHIP and CPS data on children by family income.

Appendix Table 5

**SIPP Logistic Regression Equation Results for Children**

|                           | Children 1+ Months<br>Uninsured | Children 6+ Months<br>Uninsured |
|---------------------------|---------------------------------|---------------------------------|
| Intercept                 | -1.4212*                        | -2.8026*                        |
| Age 0-5                   | 0.0985                          | <Not used>                      |
| Age 6-16                  | <Not used>                      | 0.1192                          |
| Age 17                    | -0.5162*                        | <Not used>                      |
| Poverty Level 0-99        | 0.6286*                         | 0.4880*                         |
| Poverty Level 100-200     | 0.5954*                         | 0.4581*                         |
| Black, Non-Hispanic       | 0.4003*                         | 0.2745*                         |
| Hispanic                  | 0.6531*                         | 0.6085*                         |
| Other Race                | 0.6771*                         | 0.6933*                         |
| < High School             | 0.9327*                         | 1.2806*                         |
| High School               | 0.6029*                         | 0.7304*                         |
| State Medicaid Enrollment | -0.4713*                        | -0.6083*                        |
| Unemployed                | -0.1889*                        | 0.0776*                         |
| Employed                  | -0.4217*                        | <Not used>                      |
| Uninsured 24              | <Not used>                      | 3.2502                          |

\*Significant at the 0.05 level.

Appendix Table 6

**SIPP Logistic Regression Equation Results for Adults**

|                       | Adults 1+ Months<br>Uninsured | Adults 6+ Months<br>Uninsured |
|-----------------------|-------------------------------|-------------------------------|
| Intercept             | -2.9153*                      | -3.8398*                      |
| Age 18-20             | 0.3375*                       | <Not used>                    |
| Age 21-24             | 1.3485*                       | 0.9376*                       |
| Age 25-34             | 0.7727*                       | 0.5816*                       |
| Age 61-64             | -0.6383*                      | -0.5767*                      |
| Poverty Level 0-99    | 1.0493*                       | 0.9218*                       |
| Poverty Level 100-200 | 0.8582*                       | 0.8213*                       |
| Black, Non-Hispanic   | 0.4612*                       | 0.4509*                       |
| Hispanic              | 0.8448*                       | 0.9237*                       |
| Other Race            | 0.4645*                       | 0.4018*                       |
| Unemployed            | 0.4008*                       | <Not used>                    |
| < High School         | 1.0192*                       | 1.1675*                       |
| High School           | 0.5632*                       | 0.7376*                       |
| Uninsured 24          | <Not used>                    | 4.1717*                       |

\*Significant at the 0.05 level.

## B. Applying Equations to the CPS Data

Before applying the equations to the March 2003 CPS, we added the most recent state-level data on Medicaid enrollment. The added variables reflect changes through the end of 2003 (see Tables 4). Thus, in applying these equations to the March 2003 CPS, we produced state-level estimates that reflect coverage conditions through the end of 2003. We note, however, that the population reflected in these estimates represents the total U.S. population as of March 2003. We further adjusted the weights to reflect population growth between March 2003 and December 2003.

Applying the equation to the augmented March 2003 CPS produces the probability that each individual would not have health insurance at some point during a two-year period. We then sum the product of individuals' probabilities and their weights to calculate the number of people without coverage. For the 1+ month estimates, we then add the individuals who report no coverage in March 2003 (because individuals already known to lack insurance at a point in time were excluded from the equation). The sum of the individuals estimated to currently have health insurance but who are predicted to not have health insurance for at least one of the other 23 months and those who reported no health insurance in the CPS equals the total number of people reported to be uninsured at some point over a two-year period.

For the 6+ month estimate, we simply apply the equation to produce the probability of lacking insurance for six months or more and multiply these probabilities by the weights.

## C. Trending National Estimate Forward and Calibrating State Estimates

The logistic regression equations serve two purposes. Primarily, they adjust states' uninsurance estimates based on their population characteristics and observed differences in their Medicaid enrollment. In addition, because we incorporate Medicaid data through the end of 2003, the equations also serve to trend the resulting uninsurance estimates forward from 2002 (the end of the two-year period captured in the SIPP) to 2003.

However, because the SIPP data provide direct estimates of uninsurance over a two year period, we chose to rely on the SIPP for our estimates of uninsurance at the national level rather than on the sum of 50 modeled state-level estimates. To do this, we first had to trend the national estimate from the SIPP forward one year. We derived a trending factor by analyzing recent historical trends in insurance coverage. CPS data show the uninsurance rate growing from less than 15 percent in 2000 to 16.5 percent in 2001 and 17.3 percent in 2002. Unemployment increased over this period as well, from 4.0 percent annually in 2000 to 4.7 percent in 2001 and 5.8 percent in 2002. Annual unemployment continued to increase to 6.0 percent in 2003. Given that insurance coverage is so closely tied to employment specifically and economic conditions in gen-

eral, it is reasonable to assume that 2003 also saw a modest increase in uninsurance. We therefore assume an increase in the rate of uninsurance (as measured in the CPS) of 2 percent from 2002 to 2003, which would imply an uninsurance rate of 17.6 percent. We then proportionally adjusted all the state-level estimates so that they summed to the national target.

All national tabulations of uninsurance by population characteristics were produced directly from the SIPP. State-level tabulations of uninsurance were based on the percent distributions from the modeled CPS data applied to state totals that were calibrated to the national target.

#### IV. Definition of Output Table Variables

Below we define the variables used to report the results by individuals' characteristics.

- **Health Insurance:** We defined individuals as being uninsured if they did not report having private health insurance, Medicaid, Medicare, CHAMPUS, CHAMPVA, or military health insurance in a given month of the two-year period. We counted the duration without insurance as the total number of months during the two years observed from the date that an individual lacked insurance. Months without insurance need not be consecutive. This distribution by number of months is truncated for those whose spell began before the observed period and those whose spell continued beyond the end of the 24-month period. Therefore, the distribution should not be interpreted as total spell duration. The distribution likely overrepresents shorter stays.
- **Income:** The income measure we use is family income as a percentage of the Federal Poverty Threshold. U.S. tables show a detailed distribution (<100%, 100-199%, 200-299%, 300-399%, 400%+), while selected state-level tables show a more aggregated distribution (<200%, 200%+) due to sample size restrictions.
- **Race/Ethnicity:** We present the distribution of uninsured individuals across race and ethnic groups. We divided people into four mutually exclusive race/ethnic categories: White, non-Hispanic; Black, non-Hispanic; Hispanic; and Other. We classified people as Hispanic if they reported their ethnic origin as Mexican, Chicano, Puerto Rican, Cuban, Central or South American, or other Spanish.
- **Education:** For adults, we report the educational attainment of the individual. For children, we report the educational attainment of the most highly educated parent if both or neither parents are working, or the employed parent if only one parent is working. The levels we created were: less than high school graduate, high school graduate (including some college), and college graduate or higher.

- **Family Employment:** Family employment was constructed by using the highest employment status between the reference person and his/her spouse. For example, if the reference person worked part-time but his/her spouse worked full-time, the family would be categorized as full-time.
- **Family Employment Status at the End of 24-Month Period:** We report the family employment status for the last month of the 24-month period (in the output tables, roughly January 2003). The variable was composed of the following categories: employed full-time, employed part-time, unemployed, and not in labor force.
- **Family Employment Status over 24 Months:** At the national level only, we also report duration of family employment over the 24-month period. Because employment duration is available from the SIPP but not the CPS (which provides state-level estimates), we could not report it at the state level. The variable was composed of the following categories: employed full-time all 24 months, employed at least part-time all 24 months, unemployed at least one month, unemployed 24 months, and not in labor force.
- **Age:** We report age at the end of the 24-month period.

## V. Caveats and Limitations

As we indicated earlier, there are no direct estimates of individuals without health insurance over a period of time by state. Therefore, similar to small area analyses developed by the Bureau of the Census, we used the econometric models to calculate these estimates. All of the variables included in the model had significant coefficients, with the exception of the 0-5 age group dummy variable in the children's equations and the male dummy variable in the adult 1+ month equation. The state-level employment and Medicaid enrollment variables produced large coefficients and therefore had relatively large impacts on the resulting estimates of lack of insurance.

Even though the CPS sample was enhanced beginning in 2001, bias in the state estimates introduced by the sampling frame within a state still exists. For example, if all the households interviewed in a small state come from the same metropolitan statistical area in the state, they may not accurately represent the characteristics of residents of the entire state.

The model we specified assumed that the reported percent of uninsured children from the CPS was similar to the point-in-time estimate of the SIPP. As indicated earlier, researchers have differing opinions on this matter.

<sup>1</sup> In 2001, a verification question that asks specifically whether someone was uninsured all of last year was added.

<sup>2</sup> The exclusion of individuals with fewer than two years of data necessarily excludes children younger than age 2. Analysis of monthly samples indicated that insurance coverage rates for children <2 were similar to rates for children ages 2 to 5. We therefore assigned coverage to the <2 group at the same rate as the 2 to 5 group.

<sup>3</sup> It was beyond the scope of this project to quantify the extent to which those who dropped out of the survey might have different health insurance coverage patterns even after controlling for age, sex, race, and income.



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