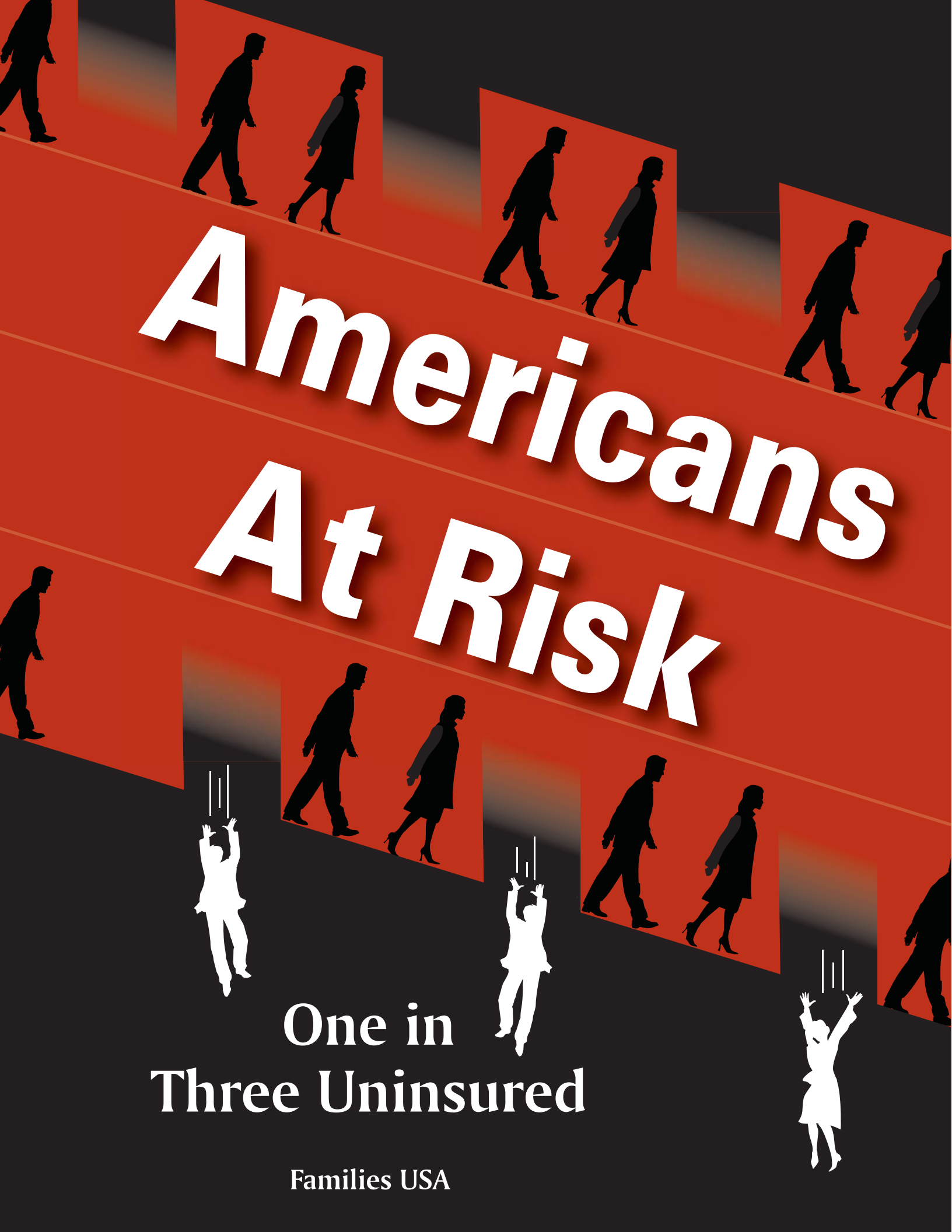
Americans
At Risk
One in
Three Uninsured
Families USA

Americans At Risk:

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A REPORT BY

Families USA

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Americans at Risk:
One in Three Uninsured

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Families USA
1201 New York Avenue NW, Suite 1100
Washington, DC 20005
Phone: 202-628-3030
Fax: 202-347-2417
E-mail: info@familiesusa.org

Cover Design: Nancy Magill, Families USA

INTRODUCTION

As the recession worsens, America's businesses and families are feeling the squeeze of these tough economic times. Unemployment is at its highest rate in decades, and economic forecasts suggest that troubles are likely to continue for many months to come. At the same time, the cost of health coverage continues to rise, and millions of Americans remain uninsured, with more workers losing their jobs and the health insurance that they rely on with each passing week.

For too long, the story has been the same: Health reform is the topic of much political and policy discussion, but meaningful action to cover the uninsured fails to occur. And thus the crisis continues, leaving millions of Americans at risk—unless policy makers act to ensure that all Americans have health coverage.

To find out how many people are affected by being uninsured, Families USA commissioned The Lewin Group to analyze data from the Census Bureau's Current Population Survey (CPS) and its Survey of Income and Program Participation (SIPP), as well as from the Medical Expenditure Panel Survey (MEPS), which is conducted by the Agency for Healthcare Research and Quality. This analysis found that 86.7 million people—one out of every three Americans under the age of 65—was uninsured for some period of time during 2007 and 2008. These Americans have had to pay for medical care out of their own pockets, or they have had to delay needed care altogether.

Who are these uninsured Americans? No one is protected from the risk of uninsurance. People in all age groups, of every race and ethnicity, and across all income ranges are affected. While most of us have health insurance through our jobs, four out of five uninsured Americans are from working families. Many of these working families are at great risk today as more and more workers get laid off and lose their ability to retain health coverage.

This report offers a closer look at the number of uninsured Americans, who they are, and how long they are uninsured. We also discuss the major underlying reasons for the growth in the number of uninsured.

KEY FINDINGS

One in Three Uninsured: 2007-2008

- 86.7 million people under the age of 65 went without health insurance for some or all of the two-year period from 2007 to 2008 (Table 1).
- One out of three people (33.1 percent) under the age of 65 were uninsured for some or all of 2007-2008 (Table 1).

Table 1

Insurance Status of Americans under Age 65, 2007-2008

Population Under 65	Number Uninsured	Percent Uninsured
262,316,000	86,708,000	33.1%

Source: Estimates prepared by The Lewin Group for Families USA (see Technical Appendix for details).

Number of Months Uninsured

- Of the 86.7 million uninsured individuals, three in five (60.2 percent) were uninsured for nine months or more. Nearly three-quarters (74.5 percent) were uninsured for six months or more (Table 2).
- Among all people under the age of 65 who were uninsured in 2007-2008, one quarter (25.3 percent) were uninsured for the full 24 months during 2007-2008; 19.5 percent were uninsured for 13 to 23 months; 15.4 percent were uninsured for nine to 12 months; 14.3 percent were uninsured for six to eight months; and 20.1 percent were uninsured for three to five months. Only 5.4 percent were uninsured for two months or less (Table 2).

Table 2

Duration without Health Insurance for Uninsured People under Age 65, 2007-2008

Months Uninsured	Number Uninsured	As Percent of All Uninsured
24 Months	21,938,000	25.3%
13-23 Months	16,922,000	19.5%
9-12 Months	13,319,000	15.4%
6-8 Months	12,440,000	14.3%
3-5 Months	17,443,000	20.1%
1-2 Months	4,646,000	5.4%
Total*	**86,708,000**	**100.0%**
Uninsured 9+ months*	52,179,000	60.2%
Uninsured 6+ months*	64,619,000	74.5%

* Numbers do not add due to rounding.

Source: Estimates prepared by The Lewin Group for Families USA (see Technical Appendix for details).

Work Status of the Uninsured

- Four out of five individuals (79.2 percent) who went without health insurance during 2007-2008 were from working families: 69.7 percent were in families with a worker who was employed full-time, and 9.5 percent were in families with a worker who was employed part-time (Table 3).
- In addition, 4.6 percent were looking for work (Table 3).
- Of the people who were uninsured during 2007-2008, only 16.2 percent were not in the labor force—because they were either disabled, chronically ill, family caregivers, or not looking for employment for other reasons (Table 3).

Table 3

People under Age 65 without Health Insurance during 2007-2008, by Family Employment Status

Family Employment Status At End of Period	Number Uninsured	As Percent of All Uninsured
Employed Full- or Part-Time	68,644,000	79.2%
Employed Full-Time	60,428,000	69.7%
Employed Part-Time	8,216,000	9.5%
Unemployed (seeking work)	3,985,000	4.6%
Not in Labor Force	14,079,000	16.2%
Total	**86,708,000**	**100.0%**

Source: Estimates prepared by The Lewin Group for Families USA (see Technical Appendix for details).

Income Level of the Uninsured

- Three out of five individuals (58.7 percent) in families with incomes below the federal poverty level ($21,200 a year for a family of four in 2008) went without health insurance in 2007-2008 (Table 4).
- More than half (52.0 percent) of individuals in families with incomes between 100 and 199 percent of poverty (between $21,200 and $42,400 a year for a family of four in 2008) went without health insurance in 2007-2008 (Table 4).
- The likelihood of being uninsured decreases considerably with increased income, but nearly one in five (17.9 percent) people in families with incomes at four times the poverty level or above went without health insurance in 2007-2008 (Table 4).

Table 4

People under Age 65 without Health Insurance during 2007-2008, by Income Level

Family Income Relative To Poverty Level	Number Uninsured	Percent of Income Group Uninsured	As Percent of All Uninsured
<100%	22,058,000	58.7%	25.4%
100-199%	22,963,000	52.0%	26.5%
200-299%	14,319,000	33.7%	16.5%
300-399%	9,051,000	25.2%	10.4%
400%+	18,316,000	17.9%	21.1%
Total*	**86,708,000**		**100.0%**

* Numbers do not add due to rounding.

Source: Estimates prepared by The Lewin Group for Families USA (see Technical Appendix for details).

Every Racial and Ethnic Group Is Affected

- Hispanics/Latinos, African Americans, and people of other racial or ethnic minorities were much more likely to be uninsured than whites: 55.1 percent of Hispanics/Latinos, 40.3 percent of African Americans, and 34.0 percent of other racial and ethnic minorities went without health insurance in 2007-2008, compared to 25.8 percent of whites (Table 5).
- Although racial and ethnic minorities are more likely to be uninsured, whites accounted for nearly half (49.8 percent) of the uninsured in 2007-2008 (Table 5).

Table 5

People under Age 65 without Health Insurance during 2007-2008, by Race and Hispanic Origin

Race and Hispanic Origin	Number Uninsured	Percent of Subgroup Uninsured	As Percent of All Uninsured
White	43,169,000	25.8%	49.8%
African American	13,416,000	40.3%	15.5%
Hispanic, any race	23,935,000	55.1%	27.6%
Other*	6,188,000	34.0%	7.1%
Total	**86,708,000**		**100.0%**

* "Other" includes those who identify themselves as American Indian, Aleut or Eskimo, Asian or Pacific Islander, or as a member of more than one group (e.g., white-black, white-Asian, black-Asian).

Source: Estimates prepared by The Lewin Group for Families USA (see Technical Appendix for details).

Every Age Group Is Affected

- Of the total 86.7 million uninsured people in 2007-2008, 60.1 million were uninsured adults (between 19 and 64 years of age) (Table 6).
- The likelihood of being uninsured declined among adults as they grew older. The percentage who were uninsured was highest among 19- to 24-year-olds (49.5 percent) and 25- to 44-year-olds (36.3 percent). The percentage who were uninsured declined for 45- to 54-year-olds and 55- to 64-year-olds, to 25.5 percent and 21.2 percent, respectively (Table 6).

Table 6

People under Age 65 without Health Insurance during 2007-2008, by Age

Age	Number Uninsured	Percent of Age Group Uninsured	As Percent of All Uninsured
0-18 Years	26,619,000	33.8%	30.7%
19-24 Years	11,956,000	49.5%	13.8%
25-44 Years	29,874,000	36.3%	34.5%
45-54 Years	11,186,000	25.5%	12.9%
55-64 Years	7,074,000	21.2%	8.2%
Total*	**86,708,000**		**100.0%**

* Numbers do not add due to rounding.

Source: Estimates prepared by The Lewin Group for Families USA (see Technical Appendix for details).

The Census Bureau and the Families USA Study: Two Different and Valid Measures of the Uninsured

The estimates of the number of Americans facing the physical and financial consequences of being uninsured that are presented in this study are based on a methodology that Families USA developed with The Lewin Group, a health and human services research consulting firm with more than 35 years of experience in empirical research and data analysis.

The estimates presented here differ from the widely quoted estimates of uninsured Americans that are released by the Census Bureau each year. The most recent Census Bureau release reports an estimated 45.7 million uninsured Americans (15.3 percent of the U.S. population) in 2007. This number, which was derived from the Census Bureau's annual Current Population Survey, is intended to offer an estimate of how many people did not have any type of health insurance for an entire calendar year. 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 Census Bureau's estimate.

Thus, this study was designed to take a closer look at, and to improve our understanding of, how many people experience a significant gap in health coverage. The Census Bureau's Current Population Survey asks respondents a series of questions in March, which respondents must answer by looking back at the time period from January 1 through December 31 of the previous year. If, and only if, the respondent answers that he or she did not have any kind of insurance at any point during that previous calendar year will that person be counted as uninsured. However, there are many people who are uninsured for periods of time that do not neatly fall within a 12-month calendar year. The Families USA-Lewin methodology used in this study examines how many people under the age of 65 were without health insurance for at least one month—and up to the entire 24 months—during the two-year period of 2007-2008.

By taking this closer look, we found that many more people experienced a significant gap in health coverage than is usually recognized, and that that number is increasing rapidly. Our methodology includes, for example, a person who was uninsured from August 1, 2007, to April 1, 2008. This person would not be counted as uninsured in either 2007 or 2008 by the Census Bureau's Current Population Survey. Similarly, a person who was uninsured from January 1, 2007, until November 1, 2008—22 months without health insurance—would be counted by the Census Bureau as uninsured in 2007 but not counted as uninsured in 2008 (even though the person was uninsured for 10 months of 2008). No picture of the causes and consequences of being uninsured is complete unless it includes all who experience a significant gap in health coverage.

As described more fully in the Technical Appendix (see page 17), this study's estimates of the number of uninsured Americans are based exclusively on the most recent data projections from the Census Bureau's Current Population Survey and its Survey of Income and Program Participation, as well as from the Medical Expenditure Panel Survey (MEPS), which is conducted by the Agency for Healthcare Research and Quality.

DISCUSSION

According to the U.S. Census Bureau, an estimated 45.7 million Americans were uninsured in 2007. This widely quoted number, which was derived from the Census Bureau's annual Current Population Survey (CPS), is designed to be an estimate of how many people did not have any type of health insurance for the entire previous calendar year. Although the CPS numbers provide a useful annual estimate of coverage and a tool that can be used to track trends in coverage from year to year, these numbers do not paint a complete picture of the insurance crisis.

This study was designed to take a closer look at the uninsured in America and to improve our understanding of how many people experience significant gaps in health coverage. Not only does it measure the number of uninsured people over a longer period of time than the CPS (two years in contrast to one), it also measures people who are 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 is reported by the CPS. These people are at risk, both in terms of their physical and their economic well-being, and they may be profoundly affected by being uninsured. No picture of the causes and consequences of being uninsured is complete unless it includes all people who experience a significant gap in health coverage.

As described more fully in the Technical Appendix, this study's findings are based exclusively on data projections from the CPS, as well as the Census Bureau's Survey of Income and Program Participation (SIPP) and the Medical Expenditure Panel Survey (MEPS) from the Agency for Healthcare Research and Quality.

Our analysis yielded disturbing results: We found that 86.7 million people under the age of 65—one out of every three non-elderly Americans (33.1 percent)—went without health insurance for all or part of 2007-2008.

***A note about terminology**: When describing racial and ethnic groups, the Census Bureau uses the following terms: white, non-Hispanic; black, non-Hispanic; Hispanic; and other. In this report, we use the following terms: white; African American; Hispanic, any race; and other.*

A Shared Problem

Our findings demonstrate that uninsurance affects a diverse array of people. Americans from every income group, every racial and ethnic group, and every age group are uninsured. Our analysis also found several key characteristics that the uninsured have in common. First and foremost, as previous research has demonstrated, the vast majority of the uninsured are from working families.[1] Four out of five individuals (79.2 percent) who were

uninsured during 2007-2008 were from working families; 69.7 percent of the uninsured were from families with one or more people who were employed full-time (Table 3).

Second, the majority of people who are uninsured remain uninsured for substantial periods of time. Our findings demonstrate that nearly three-quarters (74.5 percent) of those who went without health insurance for some or all of 2007-2008 were uninsured for six months or more. Three out of five (60.2 percent) were uninsured for nine months or more (Table 2). The effects of being uninsured, even for a period of a few months, can be devastating, both financially and physically (see "Why Insurance Matters" on page 12). Furthermore, as the duration of uninsurance increases, so do the chances of facing catastrophic financial and health problems.[2]

Why Is the Crisis of Uninsurance So Large?

One in three Americans lack health insurance. There is no doubt that this is a shocking statistic, and it raises the question: Why is the crisis of uninsurance so large? A number of factors have led to the remarkable number of Americans who are at risk due to uninsurance. While nearly 165 million non-elderly Americans receive coverage through their job or the job of a loved one, the changing labor market has led to a decline in job-based health insurance. In addition, rising health insurance premiums have priced a growing share of Americans out of coverage, and limitations on eligibility for health care safety net programs leave millions of hard-working families with no affordable and available option for coverage. These trends are likely to accelerate as the economy continues to weaken.

- **A Changing Labor Market**

  Labor market dynamics have a profound effect on insurance coverage. The likelihood that workers are offered health insurance is closely related to a range of factors, including the industry that they work in, the number of hours that they work, whether they are permanent or temporary employees, and the size of the firm.[3]

  Traditionally, full-time, permanent employees in professional or government jobs, so-called "white-collar" workers, have been the most likely to have job-based health insurance. The vast majority of white-collar workers have health coverage. In contrast, so-called "blue-collar" workers who are employed in the service or agricultural sectors, as well as "nonstandard" workers—those who are employed on a part-time, temporary, seasonal, or contract basis—are far less likely to have insurance. For example, one study found that just one out of five nonstandard workers (21 percent) had job-based health insurance. In contrast, three-quarters (74 percent) of full-time, permanent, salaried employees had job-based coverage.[4]

Although these differences in coverage between white- and blue-collar workers have existed for years, data indicate that job-based health insurance is becoming increasingly scarce in all sectors. The proportion of Americans with job-based insurance dropped by nearly 5 percentage points between 2000 and 2007 (from 64.2 percent in 2000 to 59.3 percent in 2007).[5] Much of the decline in job-based insurance is associated with the rising costs of coverage, particularly in this recession. The rising costs of health insurance are a burden on businesses in the best of economic times, and employers have been increasingly shifting workers into positions that do not offer health coverage. Moving workers into part-time, seasonal, temporary, or other "nonstandard" positions often enables employers to avoid the cost of providing health insurance. In 2005, 34.3 million people—about a quarter of the U.S. workforce—were nonstandard workers,[6] and data suggest that this number is likely to have grown substantially in recent years. In fact, the number of Americans who are involuntarily working part-time grew by 73.3 percent between December 2007 and December 2008 alone.[7]

These labor market dynamics also help to explain some of the demographic trends discussed in the Key Findings. Racial and ethnic minorities are disproportionately employed in industries and occupations that do not typically offer health benefits or in nonstandard jobs. As a result, they are more likely to be uninsured.[8]

Health Insurance Premiums Are on the Rise

Premiums for both job-based and individually purchased health insurance have risen rapidly between 1999 and today, increasing by double-digit amounts annually between 2001 and 2004. Moreover, these rising premiums have far outstripped increases in worker earnings.[9] Between 2000 and 2007, family premiums for job-based health insurance increased by 78.3 percent, while median worker earnings rose by only 14.5 percent.[10] When premium costs outpace wages, more people end up without health insurance: As health care costs increase relative to income, the number of uninsured people increases, as well.[11]

Faced with the rising cost of health insurance premiums, employers must make difficult decisions. Some employers, particularly those in small businesses, have concluded that they can no longer afford to offer health insurance to their workers and have dropped coverage, further increasing the number of uninsured Americans.[12] Other employers continue to offer health insurance, but they ask their employees to pay a greater share of the premiums. In addition, a growing number of employers seek to hold down costs by offering "thinner coverage"—coverage that offers fewer benefits and/or that comes with higher deductibles, copayments, and co-insurance.[13]

In such situations, working families must contend with a set of difficult decisions. Even if someone in the family has an offer of coverage, he or she is likely to be required to pay more, and often for fewer benefits, than in the past. Between 2000 and 2007, the employee share of family insurance premiums increased by 90.3 percent.[14] As a result, more and more working families are being priced out of job-based insurance.[15]

Workers without an offer of job-based coverage—and those who cannot afford the out-of-pocket costs associated with their employer's plan—may seek coverage on their own in the individual health insurance market. However, finding an individual insurance plan that meets their needs and their budget is likely to be extremely challenging. One recent survey found that nine out of 10 people who sought individual coverage never purchased a plan—either because they couldn't find an affordable plan, they were rejected for coverage, or they were offered a plan that excluded coverage for the very care they were most likely to need.[16]

In order to bring America's uninsurance crisis under control, the rapid rise in premiums must be slowed. To do this, we must address the root causes of premium increases. One of the main causes is the rapid rise in health care spending. Between 2000 and 2008, the amount spent on health care for each American grew from $4,032 to a projected $6,569—an increase of 62.9 percent.[17] This marked growth in health expenditures is driven, in large part, by two factors: increasing utilization, particularly of high-tech, high-cost services, and rising underlying health care costs.[18]

Advances in medicine, such as the development of new biological drugs, surgical procedures, and diagnostic tools, have improved the quality of care for a number of medical conditions. New technology, however, comes at a high price. And some health care experts estimate that the costs associated with these new medical technologies will account for as much as half of the increase in overall health care spending now and in the future.[19]

Increased utilization, the adoption of new medical technologies, and rising underlying costs have led to rapid increases in the amount spent on health care. As underlying health care costs continue to go up, health insurance becomes even less affordable, and the number of uninsured people rises.

Premium increases caused by the rise in underlying health care costs are compounded by policies that favor insurance companies over working families. Many states lack the consumer protections that help ensure that insurance companies treat people fairly. In some markets, for example, insurers can discriminate against people because of age, health status, and a range of other factors. In these markets, insurers are free to charge high premiums, eliminate coverage of certain services, or deny coverage.[20] Moreover, health insurance companies are generally free to decide how much of each

dollar they collect in premiums will be spent on health care, how much will be spent on overhead (such as marketing and advertising), and how much will be retained as profits.[21]

Lack of consumer protections is exacerbated by a trend in mergers among competing insurance companies. A 2007 study found that there were more than 400 insurance company mergers in the previous 12 years, which resulted in near-monopoly power among insurance companies. In nearly two-thirds of major metropolitan areas, a single insurer controls half or more of the market; in 96 percent of metropolitan areas, a single insurer controls at least 30 percent of the market.[22] Without rules to govern the influence and growth of large insurers, premiums are likely to continue their rapid ascent. Appropriate oversight can help bring down the cost of premiums, making health care more affordable for all Americans.

Holes in the Safety Net

Medicaid and the Children's Health Insurance Program (CHIP) provide health coverage to more than 66 million low-income children and families.[23] Without these programs, millions more would be uninsured.

Although these programs are vitally important, many people wrongly assume that Medicaid and CHIP offer coverage to all low-income and vulnerable Americans. Contrary to this assumption, Medicaid and CHIP are targeted programs that serve specific groups of low-income people—mainly children and their parents. These programs do not cover millions of other low-income Americans who are uninsured but no less needy, typically low-wage workers.[24] Moreover, the current structures of Medicaid and CHIP allow each state and the District of Columbia significant flexibility to set their own rules about who is eligible, income guidelines, enrollment procedures, and reporting requirements.

In almost all states, income eligibility levels differ radically based on family status. In most states, for example, a child is eligible for public health coverage (through either Medicaid or CHIP) if that child's family income is at or below 200 percent of the federal poverty level ($35,200 for a family of three in 2008). However, the eligibility standards are much lower for parents than they are for children. The median income eligibility level for working parents is 67 percent of the federal poverty level—only $11,792 in annual income for a family of three in 2008.[25] Even worse, in 43 states, Medicaid is simply not available for adults without dependent children unless those adults are permanently disabled.[26]

In light of state variations in Medicaid and CHIP, it is clear that there are many holes in the current safety net. Modernizing this system by making eligibility for public health programs more uniform across states and eliminating family status as a criterion for eligibility could help strengthen the safety net and reduce the number of uninsured.

Why Insurance Matters

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

- Uninsured adults are five times less likely to have a regular source of care than the insured.[27]
- Uninsured children are nearly 13 times less likely to have a regular source of care than insured children.[28]
- Uninsured adults are almost seven times more likely than insured adults to consider the emergency room their usual source of care (19 percent compared to 3 percent).[29]
- Two-thirds of all care provided to uninsured Americans is provided by hospitals.[30]

2 The uninsured often go without screenings and preventive care:

- Uninsured adults are almost 30 percent less likely than insured adults to have had a checkup in the past year.[31]
- Uninsured women are two times less likely than insured women to have had a Pap test in the last year.[32]
- Uninsured adults are more likely to be diagnosed with a disease in an advanced stage. For example, uninsured women are substantially more likely to be diagnosed with advanced stage breast cancer than women with private insurance.[33]
- Even when uninsured adults do receive preventive care and know they have a chronic condition, they are less likely to receive proper follow-up care. For example, uninsured patients with high blood pressure are less likely to have their blood pressure monitored and controlled, and they are less likely to receive disease management services.[34]

3 The uninsured often delay or forgo needed medical care:

- Uninsured Americans are up to three times more likely to report having problems getting needed medical care.[35] Uninsured adults are more than three times as likely as insured adults to delay seeking medical care (47 percent versus 15 percent).[36] And uninsured children are nearly five times more likely than insured children to have at least one delayed or unmet health care need.[37]
- Cancer patients without health insurance are more than five times more likely to delay or forgo cancer-related care because of medical costs than insured patients (27 percent versus 5 percent).[38]
- Nearly 70 percent of uninsured adults who are in poor health, and nearly 50 percent of uninsured adults who are in fair health, report that when they needed care in the past year, they were unable to see a physician because of cost.[39]
- One in four uninsured adults could not afford to fill a drug prescription in the past year, and the same proportion went without recommended tests or treatment due to cost.[40]
- Previously uninsured adults report greater use of health services and require more costly care once they obtain Medicare coverage at age 65 compared to those who were previously insured.[41]

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

- The uninsured consistently report that they are in poorer health then people with private insurance. Lower levels of self-reported health status, in turn, are a powerful predictor of future illness and premature death.[42]
- Uninsured adults are 25 percent more likely to die prematurely than adults with private health coverage.[43]
- Every year, the deaths of 18,000 people between the ages of 25 and 64 can be attributed to a lack of health insurance. This makes uninsurance the sixth leading cause of death, ahead of HIV/AIDS and diabetes.[44]
- Uninsured Americans between 55 and 64 years of age are at much greater risk of premature death than their insured counterparts. This makes uninsurance the third leading cause of death for the near-elderly, following heart disease and cancer.[45]
- Uninsured children who were admitted to the hospital due to injuries were twice as likely to die while in the hospital as their insured counterparts.[46]
- Uninsured patients are more likely to receive lower-quality care and suffer from the adverse consequences of this gap in quality. For example, uninsured patients with traumatic injuries are 50 percent more likely to die in the hospital than insured patients;[47] and uninsured patients with colorectal carcinoma (a type of colon cancer) were found to have worse postoperative outcomes, such as complications of surgery, and a greater risk of dying after surgery.[48]

5 The uninsured pay more for care—and so do the rest of us:

- Uninsured patients are unable to negotiate the discounts on hospital and doctor charges that insurance companies do. As a result, uninsured patients are often charged more than 2.5 times what insured patients are for hospital services.[49]
- Almost half (46 percent) of uninsured cancer patients used up all or most of their savings on their medical care.[50]
- Uninsured Americans received approximately $56 billion in "uncompensated care"—care for which the provider was not paid—in 2008.[51] Although the uninsured struggle to pay as much as they can, the average premium for family health insurance provided by an employer was $922 higher in 2005 due to the cost of health care for the uninsured that they could not afford to pay themselves.
- The estimated economic loss to the U.S. economy due to the poorer health and shorter life spans of the uninsured is in the range of $100 to $200 billion annually.[52]

CONCLUSION

This study sheds more light on one of the worst predicaments facing our country today: 86.7 million Americans went without health insurance at some point in the last two years, and nearly three-quarters of these people were uninsured for six months or more. With one out of three Americans uninsured, and with the weakening economy making job-based health insurance increasingly difficult to hold on to, American families are at risk.

People who go without health insurance—even for brief periods of time—can face devastating consequences to their health and economic security. The data in this report demonstrate the magnitude of this crisis and document the consequences of inaction. Ensuring that health coverage is available and affordable for all must become a national priority.

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TECHNICAL APPENDIX

People without Health Insurance at Some Time in 2007-2008: National and State-Level Estimates

Prepared by

The Lewin Group

Randy Haught

Nikolay Manolov

John Sheils

EXECUTIVE SUMMARY

The Lewin Group estimated the number of individuals under age 65 without health insurance for at least one month during 2007 and 2008. Estimates were calculated by combining several data sources. National and state estimates were calculated using the Survey of Income and Program Participation (SIPP), the Current Population Survey (CPS), and the Medical Expenditure Panel Survey (MEPS). The SIPP was chosen because of its large sample size, state identifiers, and monthly reporting of health insurance status over a multi-year period. The CPS provides the most recent data on health insurance coverage, employment, income, and population estimates, and it supports state-level estimates. However, the CPS does not include data for 24 consecutive months. The MEPS longitudinal survey data file contains monthly reporting of health insurance status over a two-year period and has been used by the Agency for Health Care Research and Quality (AHRQ) to produce national estimates of the number of people who were uninsured at some time over a 24-month period.

National estimates were based on waves three through eight of the 2004 Panel of the SIPP (July 2004 through June 2006), which reported data for all 24 months of the period. The data were adjusted to account for the demographic and health insurance status of people who did not report data for the entire period. Final estimates were adjusted to match the results of the MEPS data as published by AHRQ and projected to the 2007-2008 period,[1] which are presented in Table 1. We used SIPP in the analysis because it includes certain labor force information that is necessary for the analysis but that is not included in the MEPS.

Technical Appendix Table 1

Trend in Number of People under Age 65 Who Were Uninsured at Some Time over a 24-Month Period

Time Period	Number Uninsured at Some Time Over a 24-Month Period (millions)
2003 - 2004 [a]	79.8
2004 - 2005 [a]	82.0
2005 - 2006 [a]	83.3
2006 - 2007 [b]	85.0 (projected)
2007 - 2008 [b]	86.7 (projected)

[a] AHRQ, "The Long-Term Uninsured in America, 2002-2006: Estimates for the U.S. Population under age 65."

[b] Projected using trends from 2003 to 2006.

Source: Lewin Group estimates.

State-level estimates were derived by applying a set of SIPP-derived regression equations to data from the March 2008 CPS by state. Separate equations were estimated for children and non-elderly adults. In addition to demographic and socioeconomic variables that were directly present in the CPS, we added state-level variables to reflect changes in Medicaid coverage for children through the end of 2006, which were the most recent data available.

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 of those without insurance for six months or more over a two-year period. We produced separate estimates for children (younger than age 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 people. A "point-in-time" estimate reports the number of people who are without health insurance on a given day or in a given month. A more restrictive definition of uninsured includes only people who are uninsured for 12 consecutive months (i.e., full-year uninsured). Alternatively, one could estimate the number of people who are uninsured during one or more months over a given 12-month or 24-month period. While this analysis focuses on the number people who were uninsured for one or more months over a 24-month period, we also present estimates under other definitions of uninsured.

We used an estimate of the number of uninsured over a 24-month period in this study to include people who were uninsured for only part of a year. Because many of the uninsured are without insurance for a short period of time, a point-in-time estimate understates the population that is at risk of being without health insurance. Estimates based on people who are 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.[2]

DATA SOURCES AND ESTIMATES OF THE UNINSURED

There is no single data source that provides estimates of the number of uninsured over a 24-month period at the state level. However, there are several data sources that provide much of the information that is required to generate state-level estimates. Thus, our approach was to estimate the number of people who were uninsured over a 24-month period nationally from data sources that provide this information and to allocate these individuals by state based upon the number of people who were uninsured over a single year, which is available by state. The data we used include the following:

- **The Survey of Income and Program Participation (SIPP):** The SIPP records demographic, employment, and health coverage data over a period of 24 consecutive months. This enables us to estimate the number of people who were uninsured for 24 consecutive months nationally, but not at the state level.

- **The Medical Expenditures Panel Survey (MEPS)**: The MEPS includes detailed health insurance coverage and health spending data for individuals over a 24-month period. These data permit us to estimate the number of uninsured over a 24-month period nationally, but not on a state-by-state basis.
- **The March Current Population Survey (CPS)**: The CPS allows state-level estimates of the number of uninsured. It also includes augmented samples, which allow greater statistical accuracy for state-level estimates.

National Estimates of People Who Were Uninsured at Some Time over a 24-Month Period

In Table 2, we present national estimates of the number of people without health insurance under alternative definitions of uninsured under these data sources. The MEPS data report that, during the 2005 though 2006 period, there were 83.3 million people who were uninsured for one or more months. It shows that 68.0 million people were uninsured some time in the last 12 months (2006) and that, in any given month, there was an average of about 49.9 million people without coverage. There were 36.7 million people who were uninsured for all of 2006.

Technical Appendix Table 2

2006 Estimates of the Number of People without Health Insurance (in millions)

Uninsurance Measure	MEPS 2005-2006 [a]	CPS 2006 [b]	CPS 2006 Adjusted [c]	SIPP Reweighted 2004-2006 [d]
Point in Time	49.9	n/a	47.1	45.1
All Year	36.7	46.5	34.3	30.5
Any Time in Year	68.0	n/a	62.5	58.4
Any Time in 24 Months	83.3	n/a	n/a	73.6

[a] AHRQ, "The Long-Term Uninsured in America, 2002-2006: Estimates for the U.S. Population under Age 65."

[b] Census Bureau estimates for 2006 using the 2007 CPS, available online at http://www.census.gov/hhes/www/hlthins.

[c] The Lewin Group adjusted the 2007 CPS to account for under-reporting of Medicaid and SCHIP coverage and assigned months of coverage for each type of insurance status. Medicaid coverage months are reported in the data. For people with employer coverage, we assigned coverage during months employed.

[d] Includes individuals reporting data for all 24 months and adjusted to account for the demographic and health insurance status of those not reporting for the full period.

Source: Lewin Group analysis of selected data files.

The SIPP data report that there were 73.6 million people who were uninsured for one or more months during the July 2004 through June 2006 period. These data also show that there were 58.4 million people who were uninsured for one or more months over the last 12 months (2006). However, while the SIPP provides the most comprehensive information available on coverage by income and employment-related variables, a large portion of the survey population was eliminated in the middle of this wave, which produced an unstable distribution of uninsured over time. For this reason, we elected to control our analyses to the MEPS estimate of the number of people without insurance for one or more months over a 24-month period. We also controlled to the MEPS estimate of the number of people who were without insurance for six months or more over the 24-month period.

State-Level Data for the Number of Uninsured

The March 2008 CPS is the most recent of these data sources on the uninsured, and it is the only one that provides reliable estimates on a state-by-state basis. These data report 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.[3] Combining the questions permits estimates of the number of people who were uninsured for all of the prior year. It does not include the data that are required to estimate the number of people who were uninsured for one or more months over a 24-month period.

The CPS reports 46.5 million people who were uninsured for all 12 months of 2006, compared with 36.7 million people who were reported in MEPS. The MEPS estimate is the better of the two estimates because it reflects multiple interviews of respondents over 24 months, while the CPS estimate is based upon respondent recall for the year prior to their interview in March. The difference in coverage estimates is also explained by the fact that the CPS under-reports the number of people who were enrolled in Medicaid.

We used Lewin Group micro-simulation models to correct the CPS for under-reporting. We distributed income over months of the prior year based upon the labor force employment spells data that were included in the survey. Using these monthly incomes, we identified those who were eligible for the Medicaid and SCHIP programs on a month-by-month basis using the eligibility rules and income levels that were actually used in their reported state of residence. We then randomly selected eligible but not enrolled people to be enrolled in the program so that these data reflected the actual number of people who were enrolled in the programs separately for children, aged adults, and non-aged adults.[4]

We also allocated employer health insurance coverage over months of employment to provide a month-by-month accounting of insurance coverage. Using these data, we could estimate the average monthly number of uninsured (i.e., a point-in-time estimate), the number who were uninsured for all of the prior year, and the number who were uninsured

for one or more months over a 12-month period. These adjusted data show that 47.1 million people were uninsured at a point in time in 2006. About 62.5 million people were uninsured for one or months over the year, and 34.3 million people were uninsured for the entire year. These estimates are generally similar to the corresponding estimates for MEPS in that year.

Some researchers have hypothesized that the CPS may be closer to a point-in-time estimate because individuals who are interviewed may be reporting their current health insurance status rather than their coverage over the past year.[5] However, Robert Bennefield of the Census Bureau has argued that the CPS primarily appears to under-report insurance coverage in general, resulting in higher-than-expected reporting of the percent who are uninsured.[6] A verification question that was added to the CPS beginning in 2001 only modestly reduced the CPS uninsured estimate (e.g., from 17.4 percent to 16.1 percent in the March 2002 CPS), which suggests that confusion over the period of recall does not account for the comparatively higher number of uninsured people in the CPS.

Also, the CPS reports three times as many people with multiple sources of coverage than do the month-by-month SIPP coverage data. This is consistent with the notion that people who were covered by one source for part of the year and a second source in the other months of the year are reporting their sources of coverage in the prior year.

ESTIMATING THE NUMBER OF UNINSURED OVER 24 MONTHS USING THE SIPP AND CPS

We estimated the number of people who were uninsured for one or more months over a 24-month period by state using the CPS and SIPP data. The first step was to specify the econometric equations that measure the likelihood that someone is uninsured one or more times over a 24-month period given their characteristics and their coverage status over the first 12 months. We then used these equations to impute uninsured periods for the following year for each person in the CPS data.

The result is a database that permits us to estimate the number of people who were uninsured for one or more months over a 24-month period at the state level. The process was calibrated so that the CPS replicated the national-level estimate of the number of people who were uninsured for one or more months over a 24-month period, which we estimated directly from the MEPS data. The methods used to develop these estimates are presented below.

Multivariate Model of People Who Were Uninsured over a 24-Month Period

We used the SIPP data to estimate a multivariate model of the likelihood that an individual will be uninsured some time in the coming year given their demographic characteristics, income, and employment status. We estimated these equations from the SIPP data, which provides extensive detail on respondent income, education level, employment characteristics,

demographic characteristics, and geographic location within the United States (i.e., Census geographic region). We used a "logit" specification, which is designed for use in predicting the likelihood of events using cross-sectional data such as the SIPP.

The SIPP files used for the analysis periods included individuals who reported information for each of the 24 months of the analysis period. Survey dropouts and additions over the period tend to distort the sample 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). The sample weights for the people who reported data for the full 24 months were adjusted to account for the demographic (age, sex, race, and income group) and health insurance status of people who did not report data for the entire period.

Adjusting the weights this way mitigates the bias in health insurance coverage that is caused by survey dropouts because health insurance coverage is also correlated with the factors that were used to adjust the weights. Moreover, the regression equations included these same factors and therefore controlled for them.

We estimated four separate equations for each of the analysis periods from the SIPP data to predict the following outcomes:

- Children who were uninsured for 1+ months over two years
- Children who were uninsured for 6+ months over two years
- Adults who were uninsured for 1+ months over two years
- Adults who were uninsured for 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 the State Children's Health Insurance Program (SCHIP). These equations perform two functions. First, applying them to the CPS allows us to generate state-level estimates over time of the uninsured given an individual's coverage status as reported in the CPS. Second, by incorporating key state-level variables that influence insurance coverage (i.e., unemployment and SCHIP enrollment), the equations allow us to generate insurance trends through the end of the analysis period.

Table 3 summarizes the samples and variables that were used for each equation. The equations used 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 the availability of insurance by age. For example, Medicaid eligibility in some states is more restrictive for children ages 6-16 than it is for children ages 0-5, and more restrictive still for children above age 16.

Our tabulations of the number of uninsured present children under age 19. We developed separate prediction equations for children under age 18 and adults aged 18 to 64 using data from the SIPP. The children's equation was applied to person-level data in the CPS for each child under age 18 to impute whether the person was uninsured at some time over a 24-month period. Similarly, the adult equation was applied to person-level data in the CPS for each person aged 18 to 64 to impute whether the person was uninsured at some time over a 24-month period. Thus, for each person in the CPS, we imputed whether they were uninsured at some time over a 24-month period. For presentation purposes, we tabulated the person-level data in the CPS for all children under age 19.

- **Family income as a percent of the federal poverty level (FPL)** (<100%, 100-199%, 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 that is typically used for statistical reporting of poverty rates.
- **Race/ethnicity** (white/non-Hispanic, black/non-Hispanic, Hispanic, other)
- **Sex** (male/female)

We also included education status as an explanatory variable. For adults, we included the highest grade completed (i.e., less than high school diploma; high school diploma [including some college], college degree or higher). For children, the education variable represents the education of the most educated parent. If one parent was employed and the other was not, education status represented 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 a respondent's likelihood of having insurance:

- **Children's Medicaid coverage** (continuous variable): This variable is important because changes in Medicaid coverage for children between the two analysis years may vary considerably by state as SCHIP coverage expanded in some states and contracted in others (see Table 4). We calculated annual children's Medicaid enrollment as a percentage of children in the state with family incomes below 200 percent of the federal poverty level (FPL). This measure is meant to capture states' progress in covering low-income children through the end of the analysis year. Enrollment includes standard Medicaid plus SCHIP. To calculate this measure, we summed Medicaid enrollment estimates and counts of the number of children covered by SCHIP plans that were not already part of state Medicaid plans. We then divided this number by the estimated number of children with family incomes below 200 percent of the FPL from the CPS to calculate enrollment rates in the general target population.[7]
- **Employment status** (employed, unemployed, not in labor force): We used employment at the end of the period.

Technical Appendix Table 3

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

	Children		Adults	
	Uninsured 1+ Months	**Uninsured 6+ Months**	**Uninsured 1+ Months**	**Uninsured 6+ Months**
Sample	Sample: Children (age <18) with health insurance in month 24	Sample: Children (age <18)	Sample: Adults (ages 18-64) with health insurance in month 24	Sample: Adults (ages 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 6-16* 17	0-5* 6-16 17*	18-20 21-24 25-34 35-60* 61-64	18-20 21-24 25-34 35-60* 61-64
Family Income (as % of federal poverty level)	<100% FPL 100-199% FPL 200%+ FPL*	<100% FPL 100-199% FPL 200%+ FPL*	<100% FPL 100-199% FPL 200%+ FPL*	<100% FPL 100-199% FPL 200%+ FPL*
Race/Ethnicity	White, non-Hispanic* Black, non-Hispanic Hispanic Other	White, non-Hispanic* Black, non-Hispanic Hispanic Other	White, non-Hispanic* Black, non-Hispanic Hispanic Other	White, non-Hispanic* Black, non-Hispanic Hispanic Other
Sex	(Not used)	(Not used)	(Not used)	Male
Education	Parent has less than high school diploma Parent is a high school graduate Parent is a college graduate* (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 Parent is a high school graduate Parent is a college graduate* (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 Individual has high school diploma Individual has college degree or higher*	Individual has less than high school diploma Individual has high school diploma Individual has college degree or higher*
Employment Status	Employed @ month 24* Unemployed @ month 24 Not in lobor force*	Employed @ month 24* Unemployed @ month 24 Not in lobor force*	Employed @ month 24* Unemployed @ month 24 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	Percent of children in state < 200% of federal poverty level enrolled in Medicaid/SCHIP annually	Percent of children in state < 200% of federal poverty level enrolled in Medicaid/SCHIP annually	(Not used)	(Not used)

* Indicates reference group omitted from equation.

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

Explanatory variables were generally kept in the modeling equations only if they were significant at the 0.05 level. The resulting coefficients for the four equations are presented in Tables 5a and 5b. In each case, the probability that an individual lacked health insurance (for 1+ or 6+ months) for each analysis period was $e^Y/(1+e^Y)$.

Technical Appendix Table 4

Percent of Children below 200 Percent of the Federal Poverty Level Enrolled in Medicaid/SCHIP

State	2005	2006	State	2005	2006
Alabama	92.0%	90.9%	Montana	57.8%	61.6%
Alaska	119.3%	119.5%	Nebraska	101.0%	99.3%
Arizona	93.3%	94.2%	Nevada	57.7%	54.9%
Arkansas	111.1%	119.9%	New Hampshire	129.3%	134.3%
California	104.9%	102.9%	New Jersey	90.3%	81.9%
Colorado	77.7%	80.9%	New Mexico	109.4%	102.1%
Connecticut	127.9%	117.0%	New York	112.0%	117.8%
Delaware	111.2%	105.8%	North Carolina	85.0%	88.7%
District of Columbia	129.8%	124.2%	North Dakota	68.2%	74.2%
Florida	93.5%	100.1%	Ohio	106.7%	111.1%
Georgia	107.3%	105.1%	Oklahoma	111.5%	111.2%
Hawaii	116.3%	108.4%	Oregon	70.7%	64.2%
Idaho	88.8%	94.9%	Pennsylvania	91.7%	92.1%
Illinois	105.4%	114.1%	Rhode Island	105.2%	111.4%
Indiana	93.3%	87.7%	South Carolina	104.6%	101.5%
Iowa	93.1%	97.6%	South Dakota	106.6%	108.7%
Kansas	78.1%	76.2%	Tennessee	119.0%	116.5%
Kentucky	92.8%	98.4%	Texas	79.6%	82.2%
Louisiana	124.9%	145.0%	Utah	60.0%	64.0%
Maine	115.7%	112.9%	Vermont	166.9%	178.1%
Maryland	114.2%	108.4%	Virginia	86.8%	83.8%
Massachusetts	112.6%	115.1%	Washington	113.2%	119.1%
Michigan	99.5%	103.8%	West Virginia	98.4%	100.5%
Minnesota	125.0%	120.5%	Wisconsin	87.9%	94.6%
Mississippi	102.1%	100.5%	Wyoming	124.1%	90.9%
Missouri	123.8%	119.1%			

Notes: This measure may differ from a state program's 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.

Some states exceed 100 percent because 1) eligibility has been extended to children with family incomes greater than 200 percent of the federal poverty level, 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

Technical Appendix Table 5a

SIPP Logistic Regression Equation Results for Children

	Children 1+ Months Uninsured	Children 6 Months Uninsured
Intercept	-0.8113*	-2.0066*
Age 0-5	-0.0093	(not used)
Age 6-16	(not used)	0.3625*
Age 17	-0.6752*	(not used)
Pov 0-100	0.4721*	0.2544*
Pov 100-200	0.6020*	0.4597*
Black Nonhisp	-0.0179	-0.2158*
Hisp	0.3065*	0.3937*
Other Race	0.0146	0.1729
<High School	0.6642*	0.7569*
High School	0.4836*	0.3588*
State Medicaid Enrollment	-0.7185*	-0.7526*
Unemployed	0.0929	-0.3855*
Employed	-0.1535	(not used)
Uninsured (month 24)	(not used)	4.0696*

* Significant at the 0.05 level.

Source: Lewin Group estimates.

Technical Appendix Table 5b

SIPP Logistic Regression Equation Results for Adults

	Adults 1+ Months Uninsured	Adults 6 Months Uninsured
Intercept	-2.9610*	-3.5084*
Age 18-20	0.1660*	-0.3085*
Age 21-24	1.2729*	0.7857*
Age 25-34	0.9022*	0.6364*
Age 61-64	-0.5189*	-0.3792*
Male	(not used)	0.2669*
Pov 0-100	0.9888*	0.6094*
Pov 100-200	0.9937*	0.7993*
Black Nonhisp	0.3299*	0.2429*
Hisp	0.6399*	0.6226*
Other Race	0.3394*	0.2211*
Unempl	0.2051*	(not used)
<High School	1.0970*	1.2177*
High School	0.7555*	0.7344*
Uninsured (month 24)	(not used)	4.2100*

* Significant at the 0.05 level.

Source: Lewin Group estimates.

Applying Equations to the CPS Data

Before applying the equations to the March 2008 CPS, we added the most recent state-level data on Medicaid enrollment. The added variables reflect changes through the end of 2006 (see Table 4). Thus, in applying these equations to the March 2008 CPS, we produced state-level estimates that reflected coverage conditions through the end of each of the analysis years. We note, however, that the population reflected in these estimates represented the total United States population as of March of the analysis year. We further adjusted the weights to reflect population growth between March and December of the analysis year.

Applying the equation to the augmented March 2008 CPS produced the probability that each individual would not have health insurance at some point during a two-year period. We then summed the product of individuals' probabilities and their weights to calculate the number of people without coverage. For the 1+ month estimates, we then added the individuals who reported no coverage in March (because individuals already known to lack insurance during the year were excluded from the equation). The sum of the individuals who were estimated to currently have health insurance but who were predicted to not have health insurance for at least one of the other 23 months and of those who reported having no health insurance in the CPS equals the total number of people who were reported to be uninsured at some point over a two-year period.

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

DEFINITION OF OUTPUT TABLE VARIABLES

Below we define the variables that were 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 data that an individual lacked insurance. Months without insurance did not need not to be consecutive. This distribution by number of months was truncated for those whose spell began before the observed period and for 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 over-represents shorter spells.
- **Income**: The income measure we used 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 were working, or the employed parent if only one parent was 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 the 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.

DIFFERENCE FROM PRIOR ESTIMATES

We estimate that 86.7 million people were uninsured at some time during 2007-2008. This estimate is lower than our previous estimate of 89.6 million people who were uninsured at some time during 2006-2007. Two primary factors affected our estimates. First, the Current Population Survey (CPS) data were revised in March 2007 by the Census Bureau to improve the consistency of estimates for the insured and uninsured as part of their ongoing efforts to improve the quality of their data. This revision reduced the number of uninsured estimated from the March 2006 CPS by about 1 million people. Also, the 2008 CPS data reported a lower number of uninsured than was reported in the 2007 CPS. Our 2006-2007 estimates used the pre-revision 2006 CPS, and our 2007-2008 estimates used the 2008 CPS data, which indicated a reduction in the uninsured.

Secondly, the 2004 panel of the SIPP, which was used to produce our 2007-2008 estimates, showed lower uninsurance rates than the 2001 panel, which was used to produce our 2006-2007 estimates. However, other surveys of the uninsured did not show this type of trend. Thus, the regression results generated from the 2004 SIPP panel produced lower coefficients for predicting uninsurance than those that were generated from the 2001 SIPP panel. The combination of these two factors resulted in a lower estimate of the number of people who were uninsured at some time over a 24-month period for 2007-2008 than we had estimated for 2006-2007.

CAVEATS AND LIMITATIONS

As we indicated earlier, there is no single data source that can be used to derive estimates of the number of individuals without health insurance over a period of time by state. Therefore, similar to the small area analyses developed by the Census Bureau, we used the econometric models to calculate these estimates.[8] All of the variables that were included in the model had significant coefficients, with the exception of the 0-5 age group; Black, non-Hispanic race; Other race; and the labor force status of parent dummy variables in the children's equations. 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.

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.

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[1] Jeffery A. Rhoades ansd Steven B. Cohen, "The Long-Term Uninsured in America, 2003-2006: Estimates for the U.S. Population under Age 65," *MEPS Statistical Brief* 220, August 2008.

[2] K. Swartz and T. D. McBride, "Spells without Health Insurance: Distributions of Durations and Their Link to Point-in-Time Estimates of the Uninsured," *Inquiry* 27 (1990): 281-288.

[3] In 2001, a verification question that asks specifically whether someone was uninsured all of last year was added.

[4] The model replicates program data on the number of people who were enrolled some time in the year and the number who were enrolled at a point in time (i.e., average monthly enrollment). We find that survey data under-reports coverage for those with part-year enrollment.

[5] C. Nelson and K. Short, *Health Insurance Coverage 1986-88* (Washington: U.S. Department of Commerce, Bureau of the Census, 1990), p. 15; K. Swartz, "Dynamics of People without Health Insurance: Don't Let the Numbers Fool You," *Journal of the American Medical Association* 271 (1994): 64-66.

[6] Robert L. Bennefield, *A Comparative Analysis of Health Insurance Coverage Estimates: Data from CPS and SIPP,* presented at the 1996 Joint Statistical Meetings of the American Statistical Association, 1996.

[7] This measure may differ from a state program's 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 on state's rankings because it is consistent across all states and between years.

[8] U.S. Census Bureau, *Model-Based Small Area Health Insurance Estimates (SAHIE) for Counties and States.*

CREDITS

This report was written by:

Kim Bailey, Senior Health Policy Analyst
Families USA

The following Families USA staff contributed to the preparation of this report:

Ron Pollack, Executive Director

Kathleen Stoll, Deputy Executive Director and Director of Health Policy

Laura Parisi, Villers Fellow

Christine Sebastian, Health Policy Intern

Peggy Denker, Director of Publications

Ingrid VanTuinen, Senior Editor

Tara Bostock, Editorial Associate

Nancy Magill, Senior Graphic Designer

Data analysis provided by:

Randy Haught, The Lewin Group
Nikolay Manolov, The Lewin Group
John Sheils, The Lewin Group

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