

# Characteristics of Individuals With and Without Health Insurance, 2009

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## Summary

Almost 51 million people, or 16.7% of the U.S. population, had no health insurance for at least some of 2009. In fact, the aggregate uninsurance rate over the past decade was never less than 13.4%. Individuals living in poorer families, young adults between ages 19 and 25, and Hispanics were especially likely to be uninsured. On the other hand, individuals over 65, who are almost always eligible for Medicare, were the least likely to be uninsured. An extensive body of research suggests that those without health insurance are more likely to face worse health outcomes than those with insurance.

This report examines the characteristics of the uninsured and those insured by private and public health insurance using data from the (March) Annual Social and Economic Supplement to the 2010 Current Population Survey (CPS). The insurance information in the 2010 CPS supplement covers calendar year 2009, the most recent year for which CPS data are available. The first part of the report compares very broad groups of individuals under age 65. Those particularly likely to be uninsured included the groups listed above, single men, children living in families headed by single men, those living in the South and West, and noncitizens. In addition, individuals living in families where the primary worker was employed by a small firm or was employed less than full-time and full-year were more likely to be uninsured than those living in a family where the primary worker was employed by a larger firm or had a full-time position for the entire year. Groups particularly likely to receive publicly funded insurance included single mothers and those in families with incomes lower than the poverty threshold.

The second section of the report compares two methods of measuring the uninsured. Using citizenship status as an example, the report analyzes uninsurance both in terms of the percentage of each citizenship status in the total pool of the uninsured (e.g., about 75% of the pool of the uninsured were native-born citizens), and in terms of the percentage of each citizenship status who were uninsured (e.g., about 16% of native born citizens were uninsured).

The third part of the report compares more narrow groups of "representative" individuals, who were largely similar but differed across a single dimension. For example, the specific effects of an individual's race and age on the likelihood of being uninsured are isolated. Among individuals who were 40 years old, native born, and lived with a spouse and children in the Northeast, those who were white were 8.1% likely to be uninsured, whereas those who were black were 10.8% likely to be uninsured. On the other hand, among all individuals, those who were white were 14% likely to be uninsured, whereas those who were 22.5% likely to be uninsured.

The final part of the report examines uninsurance rates over the past 10 years. The uninsurance rate increased during and after the relatively short economic recession of the early 2000s and during the relatively longer recession of the late 2000s.

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# Introduction

In the United States, 50.7 million people, or 16.7% of the U.S. population, had no health insurance for at least some of 2009. This is the highest rate of uninsurance over the past decade. In fact, during the past decade, the aggregate uninsurance rate was never less than 13.4%. Uninsured individuals are, on average, more likely to forgo needed health care than insured individuals, including services for preventable or chronic conditions. In addition, the uninsured are less likely to have a "usual source of care," or a provider to oversee individual health care. For these and other reasons, the uninsured often have worse health outcomes than the insured.<sup>1</sup> Among the most likely to be uninsured in 2009 were adults between 19 and 25, Hispanics, those living in families with incomes below 200% of the federal poverty guidelines, and those in families with relatively weak attachments to the labor force.

This report characterizes the health insurance status of individuals in 2009. Following a brief discussion of the data, the report examines the relationship between types of health insurance (including employment-sponsored, other private, and Medicaid) and individual characteristics (including age, other demographic characteristics, and ties to the labor market). Next, the report demonstrates the different conclusions that might be drawn from different analyses of the uninsurance data. The report then compares the likelihood that various individuals with different demographic characteristics were uninsured. The report concludes with a discussion of trends in uninsurance since 1999.

# The Data

This report uses data from the 2010 Current Population Survey (CPS) conducted by the Census Bureau of the U.S. Department of Commerce.<sup>2</sup> The CPS is a monthly survey of noninstitutionalized civilian households primarily used to collect employment data. The Annual Social and Economic Supplement (ASEC) to the CPS collects information on individual health insurance status, income, and poverty. The ASEC is also known as the March Supplement, because most of the surveys are completed in March, with many questions covering the prior year. About 100,000 addresses comprise the sample households to be interviewed. Statistical techniques adjust the data to represent all households in the nation.

The key variable in this report is whether each person was uninsured in 2009. More specifically, the uninsurance variable measures whether an individual lacked health insurance on any one representative day in 2009. This report, therefore, uses the term "uninsured" to mean at a point in 2009, and not necessarily over the entire year.<sup>3</sup>

<sup>&</sup>lt;sup>1</sup> For more information, see CRS Report RL32237, *Health Insurance: A Primer*, by (name redacted), and Centers for Disease Control, *Vital Signs: Health Insurance Coverage and Health Care Utilization—United States*, 2006-2009 *and January-March 2010*, MMWR Morbidity and Mortality Weekly Report, November 12, 2010, http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5944a5.htm?s\_cid=mm5944a5\_w.

<sup>&</sup>lt;sup>2</sup> For more information about the CPS, and the particular data used in this report, see Carmen DeNavas-Walt, Bernadette D. Proctor, and Jessica C. Smith, *Income, Poverty, and Health Insurance Coverage in the United States, 2009*, U.S. Census Bureau, P60-238, September 2010.

<sup>&</sup>lt;sup>3</sup> The March Supplement asked whether each individual had various types of health insurance at any point in 2009. Those that responded they had no health insurance of any type are considered uninsured in 2009. This wording implies that the uninsurance variable measures those who lacked health insurance for every day of the year. In conducting (continued...)

The March Supplement to the CPS is one of several popular sources used to estimate the levels of uninsurance in the United States. Additional prominent data sources include the American Community Survey (ACS), the Medical Expenditure Panel Survey (MEPS), and the Survey of Income and Program Participation (SIPP). Each dataset gives broadly similar results, and CRS analyzes the data from the two largest data sets, the ACS and the CPS.<sup>4</sup>

# Health Insurance Coverage: Individual Characteristics

This section covers the relationships between health insurance and an individual's demographic and employment characteristics. An individual's age and many other demographic characteristics cannot be changed by policy. Public policies, however, can affect income and labor force attachments.

## **Selected Demographic Characteristics**

#### Age

**Table 1** provides a breakdown of health insurance coverage by type of insurance and age in 2009, in order of increasing age. Compared with other age groups, those under age five had the highest rates of coverage (40.0%) in Medicaid, CHIP, or some other public program for low-income individuals.<sup>5</sup> On the other hand, young adults aged 19 to 25 were the most likely to have gone without coverage. While half in the young-adult age group (50.1%) were covered under an employment-based plan, almost one-third (32.7%) had no health insurance.<sup>6</sup>

Among people aged 65 and older, 93.5% were covered by Medicare, and less than 2% were uninsured. The remainder of this section focuses on the nonelderly population because of the high insurance rates among the elderly. In addition, Medicare, private-nongroup, and military/veterans

<sup>(...</sup>continued)

validation studies, however, the Census Bureau concluded that the variable actually measures whether an individual lacked health insurance on any one representative day in 2009. It should be noted that validation studies are performed for many major surveys, and do not imply anything about the reliability of any one particular survey. For examples of validation research, see John Bound, Charles Brown, and Greg J. Duncan, et al., "Evidence on the Validity of Cross-sectional and Longitudinal Labor Market Data," *Journal of Labor Economics*, vol. 12, no. 3 (July 1994), pp. 345-368, and Gary Olin, Samuel Zuvekas, and Virender Kumar, et al., *Medicare-MEPS Validation Study: A Comparison of Hospital and Physician Expenditures*, Agency for Healthcare Research and Quality, Working Paper No. 08003, March 2008, http://www.meps.ahrq.gov/mepsweb/data\_files/publications/workingpapers/wp\_08003.pdf.

<sup>&</sup>lt;sup>4</sup> For CRS analyses using the ACS, see CRS Report R41621, *The Uninsured by State and Congressional District*, by (name redacted).

<sup>&</sup>lt;sup>5</sup> Medicaid is a means-tested entitlement program that financed the delivery of primary and acute medical services as well as long-term care to more than 68 million people in FY2010. For more information, see CRS Report RL33202, *Medicaid: A Primer*, by (name redacted).

<sup>&</sup>lt;sup>6</sup> However, the Patient Protection and Affordable Care Act (PPACA, P.L. 111-148) requires that insurers offering dependent coverage continue to make adult children eligible under their parents' health insurance plans until they turn 26. For more information, see CRS Report R40942, *Private Health Insurance Provisions in the Patient Protection and Affordable Care Act (PPACA)*, by (name redacted), (name redacted), and (name redacted). The estimates presented in this paper predate this policy.

insurance are combined into an "other category" because these insurance types enroll a relatively small number of individuals in the 64-and-under age cohort.

|          |                          |                      | Туре                | of Insurance | e                            | Uninsure                           |           |            |
|----------|--------------------------|----------------------|---------------------|--------------|------------------------------|------------------------------------|-----------|------------|
| Age      | Population<br>(millions) | Employment-<br>Based | Private<br>Nongroup | Medicare     | Medicaid/<br>Other<br>Public | Military/<br>Veterans'<br>Coverage | (percent) | (millions) |
| Under 19 | 79.3                     | 56.9%                | 5.1%                | 0.7%         | 33.2%                        | 3.1%                               | 10.4%     | 8.3        |
| Under 65 | 265.7                    | 60.4%                | 6.3%                | 2.8%         | ۱6.6%                        | 3.5%                               | 18.8%     | 50.0       |
| Under 5  | 21.4                     | 51.7%                | 4.6%                | 0.7%         | 40.0 %                       | 3.4%                               | 9.1%      | 1.9        |
| 5-18     | 57.9                     | 58.8%                | 5.3%                | 0.7%         | 30.7%                        | 3.1%                               | 11.0%     | 6.3        |
| 19-25    | 29.4                     | 50.1%                | 5.9%                | 0.7%         | 13.4%                        | 3.2%                               | 32.7%     | 9.6        |
| 26-34    | 36.7                     | 56.6%                | 5.9%                | 1.4%         | 10.3%                        | 2.9%                               | 28.6%     | 10.5       |
| 35-54    | 84.8                     | 66.5%                | 6.5%                | 3.2%         | 8.4%                         | 2. <b>9</b> %                      | 19.6%     | 16.7       |
| 55-61    | 26.2                     | 67.0%                | 8.8%                | 7.9%         | 8.3%                         | 5.8%                               | 14.5 %    | 3.8        |
| 62-64    | 9.2                      | 63.5%                | 10.8%               | 13.5%        | 8.9%                         | 8.0%                               | 12.5%     | 1.1        |
| 65+      | 38.6                     | 34.7%                | 27.1%               | 93.5%        | 9.5%                         | 8.3%                               | 1.8%      | 0.7        |
| All ages | 304.3                    | 57.1%                | 9.0%                | 14.3%        | 15.7 %                       | 4.1%                               | 16.7%     | 50.7       |

#### Table 1. Health Insurance Coverage in 2009, by Type of Insurance and Age

Source: CRS analysis of data from the March Supplement to the 2010 Current Population Survey.

**Notes:** Percentages may total to more than 100 because people may have more than one source of coverage. Employment-based insurance included group health insurance through current or former employers or unions, and included coverage from outside the home. Employment-based insurance excluded military and veterans' coverage. Medicaid/other public insurance included CHIP and other state programs for low-income individuals, but excluded military and veterans' coverage.

#### Race and Family Type

**Table 2** shows the rate of health insurance coverage by type of health insurance and selected demographic characteristics for people under age 65. In 2009, whites were least likely to be uninsured (14.0%), while Hispanics were most likely to be uninsured (33.9%).<sup>7</sup> The rate of employment-based health coverage was highest among whites and Asians (69.1% and 63.1%, respectively), and the rate of public coverage was highest among blacks (30.3%).<sup>8</sup>

Although these differences are quantitative estimates of the racial differentials in insurance coverage, they in and of themselves do not provide reasons for the differences. In fact, this dichotomy is true throughout this report; while it is straightforward to estimate differences in uninsurance patterns across individual characteristics (or over time), the reasons for the differences usually remain speculative.<sup>9</sup>

<sup>&</sup>lt;sup>7</sup> As discussed in the next section, whites make up a larger proportion of the uninsured than Hispanics.

<sup>&</sup>lt;sup>8</sup> "Public coverage" included Medicare, Medicaid, CHIP, and any other health insurance program for low-income individuals, but excluded military and veterans' coverage, which are included under "other."

<sup>&</sup>lt;sup>9</sup> It can be difficult to uncover the reasons for observed differences for at least two reasons. First, the data set analyzed may not ask the questions needed for an analysis of the differences. For example, the CPS does not ask questions about (continued...)

Individuals livings in different family types have different insurance patterns. As indicated in **Table 2**, people residing in two-parent families were most likely to have employment-based health insurance (68.7%) and least likely to be uninsured (13.1%). People in a family headed by a single mother were most likely to have public coverage (43.9%), compared with other family types, and those in a family headed by a single father, or a single man living alone, were most likely to be uninsured.<sup>10</sup>

#### **Region of Residence**

Turning to regional differences, those under 65 years old were less likely to be uninsured if they lived in the Northeast or Midwest (14.2% and 15.1%, respectively) than if they lived in the South or West (22.3% and 20.3%, respectively).<sup>11</sup> Employment-based health insurance covered about 65% in the Northeast and Midwest, compared with about 57% in the South and West.

#### **Poverty and Citizenship Status**

Income, as measured by poverty status, is a strong predictor of health insurance status. Among individuals with family incomes at least two times the poverty threshold, 12.1% went without health insurance, compared with 34.0% of the poor (i.e., those with family incomes below the poverty threshold).<sup>12</sup> Only 15.6% of the poor received health coverage through employment, while 49.5% had public coverage. Of people with family incomes at least two times the poverty threshold, 77.1% were covered through an employer and 7.6% had public coverage. Finally, noncitizens had higher uninsured rates (48.0%) and lower employment-based coverage rates (34.5%) than native-born U.S. citizens (16.1% and 62.6%, respectively).

<sup>(...</sup>continued)

any medical diagnoses the respondent has received. Second, there may be no variables, even in theory, that could test a particular hypothesis. Suppose one wanted to test the hypothesis that medical practitioners were less likely to hire front desk staff of a different race than their own. It is unlikely that survey participants who did hire by race would admit this to the person conducting the survey. A better way to test this hypothesis might be to conduct a field experiment. The researcher could send actors of differing races but with the same scripted qualifications on job interviews, and analyze whether the actors pretending to be job candidates were more likely to receive job offers from practitioners of their own race.

<sup>&</sup>lt;sup>10</sup> For more information about the relationships between income, welfare, and work, see CRS Report RL30797, *Trends in Welfare, Work, and the Economic Well-Being of Female-Headed Families with Children: 1987-2008*, by (name r edacted).

<sup>&</sup>lt;sup>11</sup> For more information about the geographical categories used in the CPS, see http://www.census.gov/geo/www/geo\_defn.html#AttachmentC.

<sup>&</sup>lt;sup>12</sup> In 2009, the poverty threshold for a family with two adults and two children was \$21,756.

|                                   |                          | Type of Insurance    |                |       | Uninsured |            |  |
|-----------------------------------|--------------------------|----------------------|----------------|-------|-----------|------------|--|
|                                   | Population<br>(millions) | Employment-<br>Based | Public         | Other | (percent) | (millions) |  |
| Race/ethnicity                    |                          |                      |                |       |           |            |  |
| White                             | 166.7                    | 69.1%                | 13.2%          | 11.3% | 14.0%     | 23.4       |  |
| Black                             | 33.7                     | 47.7%                | 30.3%          | 7.5%  | 22.5%     | 7.6        |  |
| Hispanic                          | 46.1                     | 38.3%                | 27.8%          | 4.7%  | 33.9%     | 15.6       |  |
| Asian                             | 12.3                     | 63.1%                | 13.7%          | 11.2% | 18.1%     | 2.2        |  |
| Other                             | 6.9                      | 53.9%                | 29.1%          | 9.5%  | 17.2%     | 1.2        |  |
| Family type                       |                          |                      |                |       |           |            |  |
| Two parents                       | 111.0                    | 68.7%                | 16.1%          | 9.8%  | 13.1%     | 14.6       |  |
| Single father<br>with<br>children | 9.0                      | 45.0%                | 27.7%          | 7.7%  | 26.5%     | 2.4        |  |
| Single<br>mother with<br>children | 32.6                     | 37.7%                | 43.9%          | 4.9%  | 20.6%     | 6.7        |  |
| Single male<br>no children        | 59.2                     | 57.1%                | 11.3%          | 11.0% | 26.8%     | 15.9       |  |
| Single female<br>no children      | 53.8                     | 63.2%                | 13.7%          | 10.9% | 19.4%     | 10.5       |  |
| Region                            |                          |                      |                |       |           |            |  |
| Northeast                         | 47.1                     | 65.6%                | 20.3%          | 6.7%  | 14.2%     | 6.7        |  |
| Midwest                           | 57.6                     | 65.4%                | 17. <b>9</b> % | 9.1%  | 15.1%     | 8.7        |  |
| South                             | 98.0                     | 57.1%                | 17.5%          | 10.5% | 22.3%     | 21.8       |  |
| West                              | 63.0                     | 57.1%                | 18.7%          | 10.9% | 20.3%     | 12.8       |  |
| Family income-t                   | o-poverty ratio          | )                    |                |       |           |            |  |
| Less than<br>100%                 | 40.1                     | 15.6%                | 49.5%          | 6.1%  | 34.0%     | 13.7       |  |
| 100%-149%                         | 23.8                     | 28.5%                | 38.3%          | 7.1%  | 33.4%     | 7.9        |  |
| 150%-199%                         | 23.5                     | 43.5%                | 25.8%          | 9.8%  | 29.0%     | 6.8        |  |
| 200%+                             | 177.8                    | 77.1%                | 7.6%           | 10.7% | 12.1%     | 21.5       |  |
| Citizenship                       |                          |                      |                |       |           |            |  |
| Native-Born                       | 232.7                    | 62.6%                | 18.9%          | 10.0% | 16.1%     | 37.4       |  |
| Naturalized                       | 12.8                     | 60.8%                | 12.2%          | 9.3%  | 22.9%     | 2.9        |  |
| Not citizen                       | 20.2                     | 34.5%                | 15.5%          | 5.2%  | 48.0%     | 9.7        |  |
| Total                             | 265.7                    | 60.4%                | 18.4%          | 9.6%  | 18.8%     | 50.0       |  |

# Table 2. Health Insurance Coverage for People Under Age 65 in 2009, by Type ofInsurance and Demographic Characteristics

Source: CRS analysis of data from the March Supplement to the 2010 Current Population Survey.

**Notes:** Percentages may total to more than 100 because people may have more than one source of coverage. Employment-based insurance included group health insurance through current or former employers or unions and included coverage from outside the home. Employment-based insurance excluded military and veterans' coverage. Medicaid/other public insurance included CHIP and other state programs for low-income individuals, but excluded military and veterans' coverage. Other insurance includes private non-group insurance and military/veterans coverage. Hispanics may be of any race. Whites, blacks, and Asians were those individuals who were non-Hispanic and reported only one race. Among non-Hispanics, individuals who reported any other single race (e.g., American Indian) or multiple races were categorized as "other." In 2009, the poverty threshold (which is used mainly for statistical purposes and differs slightly from the poverty guideline used for program eligibility and other administrative purposes) for a family with two adults and two children was \$21,756.

### **Selected Employment Characteristics**

**Table 3** shows the rate of health insurance coverage for people under age 65 in 2009 by the employment characteristics of the primary worker in the family.<sup>13</sup> Families where no one worked are omitted from the table. Family members were increasingly less likely to be uninsured as the primary worker's firm size increased. For example, members of a family where the primary worker was employed by a firm with less than 10 employees were more than three times as likely to be uninsured as family members where the primary worker was employed by a firm with less than 10 employees were more than three times as likely to be uninsured as family members where the primary worker was employed by a firm with less than 10 employees were more than three times as likely to be uninsured as family members where the primary worker was employed by a firm with over 1,000 employees. Some of this difference may occur because large firms frequently face lower costs for health insurance benefits than smaller firms. This cost differential occurs because larger firms are better able to spread the risks associated with high-insurance-cost individuals across many individuals. In addition, administration and marketing costs are lower in larger firms than in smaller firms.<sup>14</sup>

Members of a family where the primary worker had a strong attachment to the labor force were less likely to be uninsured than others. Members of a family where the primary worker was employed full-time for a full year were about half as likely to be uninsured as those in families where the primary worker was employed full-time for only part of the year (13.7% versus 26.0%, respectively). Those who worked part-time, either for all of 2009 or for a part of it, were even more likely to be uninsured.

<sup>&</sup>lt;sup>13</sup> The primary worker is the family member who worked the greatest number of weeks per year and/or hours per week in 2009.

<sup>&</sup>lt;sup>14</sup> Paul Fronstin, *Sources of Health Insurance and Characteristics of the Uninsured: Analysis of the March 2010 Current Population Survey*, Employee Benefit Research Institute, No. 347, September 2010, p. 11.

|   | Total Population<br>(millions) | Percent Uninsured |
|---|--------------------------------|-------------------|
| Firm Size                                 |                                |                   |
| Under 10                                  | 38.2                           | 35.7%             |
| 10-24                                     | 19.7                           | 27.7%             |
| 25-99                                     | 26.2                           | 19.7%             |
| 100-499                                   | 29.2                           | 13.6%             |
| 500-999                                   | 12.2                           | 10.2%             |
| 1,000 +                                   | 96.2                           | 9.6%              |
| _abor Force Attachment                    |                                |                   |
| Full time, full year                      | 168.0                          | 13.7%             |
| Full time, part year                      | 28.0                           | 26.0%             |
| Part time, full year                      | 15.2                           | 30.7%             |
| Part time, part year                      | 10.6                           | 36.0%             |
| Total people in families with<br>a worker | 221.7                          | 17.5%             |

# Table 3. Health Insurance Coverage for People Under Age 65, with Family Memberin the Labor Force, in 2009, by Firm Size and Labor Force Attachment

Source: CRS analysis of data from the March Supplement to the 2010 Current Population Survey.

**Notes:** Workers may work in any industry, including private industries (including agriculture), and the civilian and military public sectors. Firm size and labor force attachment reflected the employment characteristics of the primary worker in families where someone was working. Those employment characteristics were applied to those individuals' spouses and children.

# Characterizing the Uninsured

This section demonstrates that, in evaluating groups of uninsured individuals, it is important to decide on an appropriate comparison group. Although citizenship status is used as an example, the issues covered in this section are applicable to other traits as well. The conclusion is that different representations of the same data can lead to different conclusions if care is not taken when evaluating the data.

**Figure 1** looks at the total number of uninsured individuals and displays the percentage of uninsured individuals by citizenship status. From this picture alone, it appears that the greatest number of individuals in need of policy support are those who are native-born citizens. This is because almost 75% of the total pool of the uninsured are native-born citizens, while about 20% of the total pool of the uninsured are not citizens, with the remaining 5% being naturalized citizens. In this example, it is important to remember that all comparisons are relative to the total number of uninsured.

Figure 1. Percentage of Uninsured Individuals Within Each Citizenship Status, for Under Age 65 Population, in 2009



**Source:** CRS analysis of data from the March Supplement to the 2010 Current Population Survey.

The remaining figures, however, demonstrate that different conclusions might be drawn if the analysis compares the percentage of uninsured individuals within each group's citizenship status. These comparisons are illustrated in **Figure 2**, **Figure 3**, and **Figure 4** for native-born citizens, noncitizens, and naturalized citizens. **Figure 2** demonstrates that far more native-born citizens are insured (about 84%) than are uninsured (about 16%). Even though **Figure 1** demonstrates that native-born citizens are the largest group of uninsured citizens, **Figure 2** demonstrate that, of all native born citizens, 16% are uninsured.

The comparison across the two measurements of noncitizens is also instructive. **Figure 1** demonstrates that noncitizens comprise the smallest citizenship group of the uninsured. On the other hand, **Figure 3** demonstrates that almost one half of noncitizens are uninsured. Similar disparities can be found when comparing the relative importance of uninsured naturalized citizens in **Figure 1** and **Figure 4**. Uninsured naturalized citizens comprise 5.8% of the pool of the uninsured but 16.1% of all naturalized citizens.

This apparent paradox—that the group least likely to be uninsured makes up the largest portion of the uninsured—exists when looking at other characteristics. It comes about because the group that represents the largest share of the relevant population (i.e., native-born citizens) does not have to have the largest uninsurance rate (i.e., not citizens). In fact, as the data in **Table 2** demonstrate, the *total number* of naturalized citizens and non-citizens (33.0 million) is less than the *number of uninsured* citizens (37.4 million)

The difference between calculations in percentages and calculations in numbers raises difficult issues for policy makers considering policy options to reduce the number of uninsured. For example, proposals that may affect the greatest number of citizens (who comprise almost three-quarters of the pool of uninsured) may not affect the greatest number of noncitizens (of whom almost half are uninsured).



Figure 2. Insurance Status of Native-Born Citizens Under Age 65 in 2009

**Source:** CRS analysis of data from the March Supplement to the 2010 Current Population Survey.



Figure 3. Insurance Status of Noncitizens Under Age 65 in 2009

**Source:** CRS analysis of data from the March Supplement to the 2010 Current Population Survey.



Figure 4. Insurance Status of Naturalized Citizens Under Age 65 in 2009

Source: CRS analysis of data from the March Supplement to the 2010 Current Population Survey.

# The Likelihood of Being Uninsured

An individual's probability of being uninsured can be measured in two ways. **Table 2** shows differences in the probability of being uninsured for various broad demographic groups. For example, among those under 65, blacks were 22.5% likely to be uninsured, whereas whites were 14.0% likely to be uninsured. In other words, blacks were 8.5 percentage points more likely to be uninsured than whites. This comparison across groups is the first way to measure the probability of uninsurance.

Race is only one of many factors by which individuals differ. It is possible to compare individuals who are largely identical (at least in the variables collected in the survey data), but differ along one variable of interest. This section first compares the likelihood of not having health insurance for representative individuals who are largely identical but differ by race. The section then, for each race, compares representative individuals who are largely identical but differ by age.

**Figure 5** compares the likelihood across races that the representative individual is uninsured.<sup>15</sup> All individuals compared were assumed to be 40-year-old, native-born citizens living with a

<sup>&</sup>lt;sup>15</sup> In general terms, this section estimates the effect of one characteristic (in percentage terms) on the probability of being uninsured while holding all the other characteristics constant. In other words, for each individual, the statistical technique estimates a probability of being uninsured between 0% and 100%, and the estimated probability varies as one, and only one, characteristic varies.

The methodology is therefore similar to multiple regression. The multiple regression technique, however, is modified because the estimated probability of having health insurance must be between 0% and 100%.

In more technical terms, all estimates in this section are fitted values from a logit specification that regressed whether an individual was uninsured on a quartic in age and dummy variables for race, family type, region, and citizenship. All coefficients in the logit were significantly different from zero at the 5% level. This type of analysis is covered in G. S. Maddala, *Limited Dependent and Qualitative Variables in Econometrics* (University of Cambridge, 1983), pp. 22-27. In addition, the examples presented in this section of the report were chosen for illustrative purposes. Many additional comparisons are possible.

spouse and children in the Northeast. The individuals differed by race, and therefore had different probabilities of uninsurance (even though they shared other characteristics). For example, this individual faced a 10.8% likelihood of uninsurance if black, and a 8.1% likelihood of uninsurance if white. When comparing two largely identical individuals (defined as 40 years old, with children, northeasterners, and native-born citizens), blacks are 2.7 percentage points more likely to be uninsured than whites.<sup>16</sup>



Figure 5.The Likelihood of a Representative Individual Being Uninsured in 2009, by Race

Source: CRS analysis of data from the March Supplement to the 2010 Current Population Survey.

**Notes:** The representative individual was 40 years old, lived with a spouse and children in the Northeast, and was a native-born citizen. No additional characteristics were used in this calculation.

Neither of these two measures of the likelihood of uninsurance is the "better" measure. Rather, the two measures answer different questions. When comparing all black individuals and all white individuals (see **Table 2**), blacks are 8.5 percentage points more likely to be uninsured than whites. When comparing individuals who already share basic demographic characteristics (see **Figure 5**), blacks are 2.7 percentage points more likely to be uninsured than whites.<sup>17</sup>

**Figure 6** depicts the likelihood of representative white, black, and Hispanic individuals being uninsured in 2009 at every age between birth and age 64. Once again, these individuals were native-born citizens who lived with a spouse (or at least one parent) and children (if an adult) in the Northeast. The three uninsurance profiles have the same general shape. The individuals were least likely to be uninsured at birth but then faced an increased likelihood of uninsurance. This increasing likelihood of uninsurance became stronger beginning at about age 12 and increased throughout the individuals' teens and twenties. Once individuals reached their early thirties, however, their likelihood of being uninsured began to fall. The likelihood of uninsurance continued to fall, on average, until about age 59. Were this graph to extend beyond age 65,

<sup>&</sup>lt;sup>16</sup> The phrase "largely identical" means having equal variables for many of the variables included in the analysis. If different variables were included, (e.g., the education of the individual), the estimated results might differ.

<sup>&</sup>lt;sup>17</sup> Note that these differences are measured as changes in percentage points, and not as changes in percents.

however, the uninsurance rate would approach zero because almost everyone would be covered by Medicare.



Figure 6. The Likelihood of a Representative Individual Being Uninsured in 2009, by Age and Race

**Source:** CRS analysis of data from the March Supplement to the 2010 Current Population Survey.

**Notes:** The representative individual lived in a two-parent family in the Northeast, was white, and a native-born citizen. No additional characteristics were used in this calculation. The age measures the age of the individual in 2009.

## Uninsurance over Time, 1999 Through 2009

The percentage of people without health insurance has not been constant over time. **Figure 7** displays the aggregate uninsurance rate for individuals of all ages. The data reported in this section of the report are from published CPS documents. Data prior to 1999 are not consistent with more recent data.<sup>18</sup> The shadowed areas represent times of economic recessions.<sup>19</sup>

It is not possible to predict whether the percent uninsured will increase or decrease during a recession. Individuals may lose their jobs, and thus their employment-based insurance. These employment effects would lead to an increase in the uninsurance rate because not all those who lose their employment-based coverage would extend their insurance through COBRA or purchase

<sup>&</sup>lt;sup>18</sup> All information in this subsection is from Carmen DeNavas-Walt, Bernadette D. Proctor, and Jessica C. Smith, *Income, Poverty, and Health Insurance Coverage in the United States, 2009*, U.S. Census Bureau, P60-238, September 2010. There are data available for 1989 through 2009, but the insurance variables were not consistently constructed over time.

<sup>&</sup>lt;sup>19</sup> By convention, recessions are quantified by the National Bureau of Economic Research (NBER). A recession is a "significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real GDP, real income, employment, industrial production, and wholesale-retail sales." For more information, see http://www.nber.org/cycles/main.html.

insurance in the individual market.<sup>20</sup> On the other hand, the economic downturn may cause children and adults to become eligible for the need-based entitlement programs of Medicaid and CHIP. If the newly eligible do indeed enroll, the uninsurance rate may decrease. Because the unemployment rate is slow to recover after a recession, the effects of unemployment on uninsurance may linger past the end of the recession.





**Source:** Carmen DeNavas-Walt, Bernadette D. Proctor, and Jessica C. Smith, *Income, Poverty, and Health Insurance Coverage in the United States, 2009*, U.S. Census Bureau, P60-238, September 2010, p. 71.

Turning to the data, the uninsurance rate increased during and after the relatively short recession of the early 2000s, and during the relatively longer recession of the late 2000s. In fact, the aggregate uninsurance rate of 16.7% in 2009 was the highest reported insurance rate over the interval.

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<sup>&</sup>lt;sup>20</sup> For information on COBRA, see CRS Report R40142, *Health Insurance Continuation Coverage Under COBRA*, by (name redacted).

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