By Stephen Zuckerman, Timothy A. Waidmann, and Emily Lawton

Undocumented Immigrants, Left Out Of Health Reform, Likely To Continue To Grow As Share Of The Uninsured

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ABSTRACT **The increase in undocumented immigration between 1999 and 2007 contributed to an increase in the number of uninsured people in the United States. During this period, the number of undocumented immigrants increased from an estimated 8.5 million to 11.8 million, leading to an estimated additional 1.8 million uninsured. These uninsured and undocumented immigrants were estimated to represent 27 percent of the overall increase of 6.9 million uninsured people during this period. Undocumented immigrants accounted for one in seven of the uninsured in 2007, up from one in eight in 1999. These undocumented immigrants will not be eligible for public insurance or any type of private coverage obtained through exchanges under the Affordable Care Act of 2010. As a result, members of this group will eventually constitute a larger percentage of the uninsured population, unless other policy actions are taken to provide for their coverage, or their immigration status is changed.**

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Although the flow of undocumented immigration to the United States has slowed in recent years, as of March 2010 there were still an estimated 11.2 million undocumented immigrants in the country.[1] Yet, reflecting the lack of a policy consensus on how to address undocumented immigration in general, the Affordable Care Act of 2010 excludes undocumented immigrants from all of its programs aimed at helping the uninsured gain coverage.

For example, undocumented immigrants are not eligible for enrollment in the act's expanded Medicaid program, nor for the low-income subsidies to make coverage more affordable when purchased through health insurance exchanges. In fact, undocumented immigrants who want to use their own resources to purchase coverage for themselves and their families from the exchanges are barred by the law from doing so.

Doing nothing to provide coverage to undocumented immigrants means that they will gradually become a larger share of the uninsured population. Research has shown that about three out of every ten foreign-born residents of the United States are undocumented and that the foreign-born are dramatically less likely than the native-born population to have health insurance coverage, through either a private health plan or a public program.[2,3] Analyses of the effects of the foreign-born population on trends in insurance coverage show that immigrants have contributed to the growth in the number of uninsured people. However, the magnitude of these contributions has varied over time, because immigrants contribute less to the growth in the number of uninsured people during recessions and more during economic expansions.[2,4] The effects of undocumented immigration have been difficult to analyze because of limitations in the data that are available about this group.

Only one study, using data from the 2000–01 Los Angeles Family and Neighborhood Survey, explored the role that undocumented immigra-

tion plays in health insurance coverage.[5] That survey included a high concentration of undocumented immigrants because it oversampled poor neighborhoods in Los Angeles and contained a series of questions specifically designed to distinguish undocumented from documented immigrants.

The study concluded that simply being an immigrant adult as opposed to being native-born did not add much to explaining differences in insurance coverage beyond factors such as income, education, and employment. Nonetheless, undocumented immigrants were at a distinct disadvantage in obtaining coverage. The analysis found that disparities in public insurance coverage were more important than disparities in private coverage in explaining the gaps in overall coverage for undocumented immigrants, even after a range of socioeconomic factors were controlled for.

In this study we drew on data from the Census Bureau's Current Population Survey to explore health insurance coverage among undocumented immigrants from a national perspective. First, we considered the upward trends in the overall numbers of the uninsured between 1999 and 2007 and the potential role that undocumented immigrants played in contributing to that growth.

In addition, we examined how insurance coverage varied with immigration status and explored the factors that contributed to the high rates of uninsurance among undocumented immigrants. These data are the most recent for which we were able to combine information on undocumented immigration and national data on insurance coverage. The analysis provides useful baseline information about health insurance coverage among undocumented immigrants in the period before passage of the Affordable Care Act and the determinants of that coverage.

Study Data And Methods

DATA SOURCES The primary data sources for this study were the 2000–08 Annual Social and Economic Supplements of the Current Population Survey, providing data for calendar years 1999–2007. This is the major source of information on health insurance coverage in the United States and provides a consistent time series to permit an examination of the trends in coverage.

In addition to insurance coverage, we used information from the survey on age, race, sex, health status, family income, education, and—for working adults—industry of employment and firm size. The key variable that was not readily available on the survey was an immigration status measure that identified undocumented immigrants.

To identify undocumented immigrants, we employed a method that was originally developed to analyze data from the 1980 census.[6,7] The basic idea is to derive what is known as a residual of the foreign-born population—what is left of that group after excluding the share that can be assumed to be in the country legally. The size of the legal foreign-born population is identified using information from the Department of Homeland Security (information previously collected by the Immigration and Naturalization Service), as well as refugee and asylum applications. More detailed discussions of this approach have been presented elsewhere.[3,8]

In short, foreign-born residents are assumed to be legal if they arrived in the United States prior to 1980; have refugee status or were granted political asylum; gained legal status as a result of the Immigration Reform and Control Act of 1986; or are legal permanent residents—that is, they have what is popularly known as a green card. We applied these assumptions to insurance coverage data from the Current Population Survey. The application was relatively straightforward because the assumptions were adapted for data from the survey and have regularly been applied to its data since 1980.

STATISTICAL APPROACHES Given the large role that Medicare plays in covering the elderly population, our focus in this study was on insurance coverage of nonelderly Americans. Our analysis of trends in insurance coverage and the role of undocumented immigrants was purely a descriptive analysis of the underlying data. To assess the effect on coverage of being an undocumented immigrant, above and beyond a range of other socioeconomic factors, we employed multivariate regression models to control for measurable differences among the four categories of immigration status in our study: the native-born, naturalized citizens, legal permanent residents, and undocumented immigrants.

Given the dichotomous nature of the dependent variables describing the various coverage categories in these regressions, we used logistic regression models to estimate the effects. In these models, which isolate the effect of immigration status, we controlled for state of residence and year. We also controlled for individual-level characteristics, such as age, race, sex, and health status; and family-level characteristics, such as income, the highest level of education among adults, and the industry in which working adults were employed and the size of the firms that employed them. To allow us to assess whether each of these variables differentially affected insurance coverage across immi-

gration groups—and if so, how—we also included the interactions of each variable with each of the four immigration status categories.

Once the parameters of the models were estimated, we used them to derive regression-standardized means for the probability of having private coverage, public coverage, and being uninsured for the four immigration statuses. The standardized means, isolating the effect of status, were calculated from the mean predicted probabilities from a standardized population, holding constant all factors other than immigration status and one other variable.

For example, to calculate the standardized rate of being uninsured for undocumented immigrants with family incomes below 133 percent of the federal poverty level, we let all variables take on their actual values for all people in the sample, with the exception of the income and immigration status variables. In this case, these variables would be set so that all people appeared as if they had incomes below 133 percent of the federal poverty level and were undocumented immigrants.

Study Results

During 1999–2007 the total number of uninsured Americans increased by 6.7 million—from 39.3 million to 46.0 million (Exhibit 1). The number of uninsured undocumented immigrants increased by 1.8 million—from 4.9 million to 6.7 million (data not shown). This increase represented 27 percent of the overall increase in the number uninsured. As a result, during this period the share of the uninsured who were undocumented immigrants increased from 12.5 percent, or one in eight people, to 14.6 percent, or one in seven.

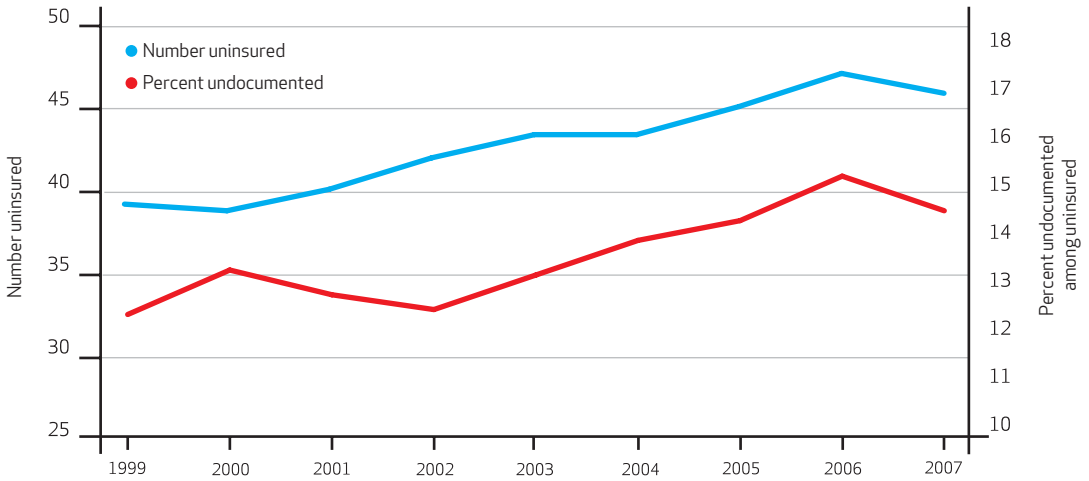
Is this increase in the share of the uninsured who are undocumented immigrants due to changes in the composition of the US nonelderly population or changes in the uninsurance rate across the immigration status subgroups? Exhibit 2 presents data on changes in population and uninsurance rates overall and for each immigration status. The total population increased by 7.8 percent between 1999 and 2007. At the same time, the size of the undocumented immigrant population grew by 37.6 percent, while the native-born population increased by only 5.9 percent.

This differential in growth caused the undocumented immigrants' share of the US nonelderly population to rise by about 29 percent (from 3.5 percent of 244.2 million to 4.5 percent of 263.4 million)—an increase almost identical to the 27 percent increase in the share of the uninsured population that was undocumented. Combining this with the finding that the uninsurance rate for undocumented immigrants was the same at the beginning and end of the study period (Exhibit 2) shows that the growth in the number of uninsured undocumented immigrants was due to growth in the size of the undocumented population, and not to an increase in their uninsurance rate.

Exhibit 3 shows the average coverage distribution by immigration status over the entire study period. Almost three-quarters of citizens—

EXHIBIT 1

Number Of Uninsured US Residents And Percentage Undocumented Immigrants, 1999–2007



SOURCE Annual Social and Economic Supplements of the Current Population Survey, 2000–08. **NOTES** Number uninsured is denoted by the blue line and relates to the left-hand *y* axis. Percentage undocumented immigrants among the uninsured is denoted by the red line and relates to the right-hand *y* axis.

EXHIBIT 2

Nonelderly US Population And Uninsurance Rate, By Immigration Status, 1999–2007

Immigration status	Nonelderly population			Uninsurance rate		
	1999 (millions)	2007 (millions)	Percent change, 1999–2007	1999 (%)	2007 (%)	Difference, 1999–2007[a]
Native-born	215.9	228.6	5.9%	13.4	14.4	1.0
Naturalized citizens	8.3	11.1	33.4	18.7	19.8	1.1
Legal permanent residents	11.4	11.9	4.4	34.4	34.7	0.3
Undocumented immigrants	8.5	11.8	37.6	57.0	57.0	0.0
Total population	244.2	263.4	7.8	16.1	17.5	1.4

SOURCE Annual Social and Economic Supplements of the Current Population Survey, 2000–08. [a]Percentage points.

including both the native-born and naturalized citizens—had private insurance coverage. In contrast, only slightly more than half of legal permanent residents and slightly more than one-third of undocumented immigrants had private coverage. Public coverage filled in some of the coverage gap across immigration status categories, but it was least likely to help undocumented immigrants.[9]

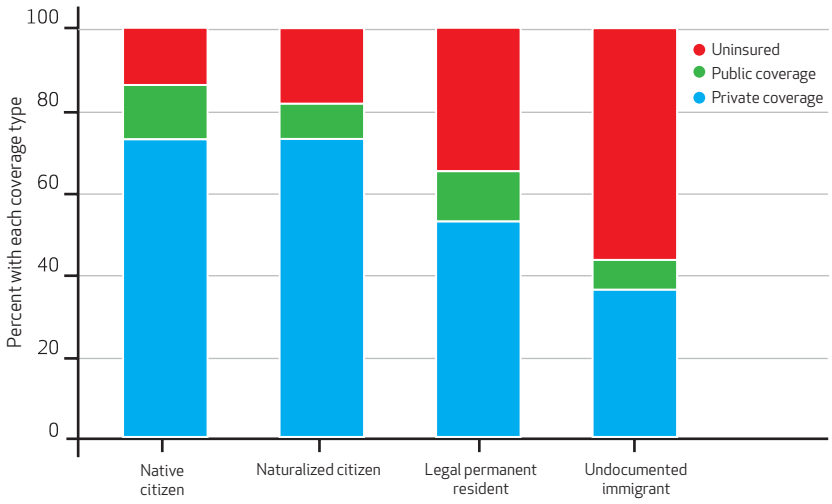
FACTORS THAT DETERMINE COVERAGE Prior research on insurance coverage has identified many factors that play a role in determining who has coverage and who is uninsured.[10] For example, we know that groups such as low-income families, young adults, and employees of small firms are all less likely to have private coverage than are high-income families, older adults, and employees of larger firms. We also know that public coverage never fully offsets this coverage gap. During the study period, undocumented immigrants were almost twice as likely as the native-born to have incomes below 133 percent of the federal poverty level (Exhibit 4). The average uninsurance rate for people in that income level across the entire survey sample was about 35 percent (data not shown). Although uninsurance rates declined as income increased for all immigration status categories, only 10.8 percent of undocumented immigrants had incomes above 400 percent of the federal poverty level, in comparison to 37.7 percent for the native-born (Exhibit 4).

Exhibit 4 also shows that the native-born were more likely than undocumented immigrants to be younger than age nineteen. Native-born children who lacked private coverage were more likely to have access to public coverage through Medicaid or the Children's Health Insurance Program, options not available to undocumented immigrant children.[11] In addition, the percentage of people ages 19–29—a group that typically has low rates of private coverage and is less likely to be eligible for public coverage—was much smaller in the native-born population than in the undocumented immigrant group.

In addition, undocumented immigrants were less likely than the native-born to have private insurance through their employer (Exhibit 4). Almost one-third of undocumented immigrants worked at firms with fewer than twenty-five workers (compared to 13.1 percent of the native-born), and only one-quarter worked at firms with 500 or more workers (compared to 48.9 percent of the native-born). We found that undocumented immigrants were also more likely to be employed in agriculture or construction, two industries with low employer-based coverage rates and high uninsurance rates in the survey (data not shown).

EXHIBIT 3

Type Of Insurance, By Immigration Status, 1999–2007



SOURCE Annual Social and Economic Supplements of the Current Population Survey, 2000–08. **NOTE** The percentages are averages across all years in the study period.

THE ROLE OF IMMIGRATION STATUS The factors identified in Exhibit 4 are among those that could contribute to explaining overall differences in insurance coverage across immigration status categories. However, our multivariate regression analysis (discussed in the Statistical Approaches section) and the regression-standardized coverage probabilities that we computed showed that after all of the variables outlined above were controlled for, differences in insurance coverage across immigration status groups were reduced but not eliminated.

Exhibit 5 displays the regression-standardized probabilities of private coverage; public coverage; and no coverage for the native-born, legal permanent residents, and undocumented immigrants. Although we estimated regression-standardized means for all of the subgroups shown in Exhibit 4, we present here the results for the lowest- and highest-income groups only, because they captured the overall findings from the full set of estimates.

For people in families with incomes below 133 percent of the federal poverty level, there was very little variation in private coverage rates across immigration status categories, after the other observable characteristics used in the regression models were controlled for (Exhibit 5). However, differences in regression-adjusted public coverage rates were dramatic. Although about one in four native-born residents and one in five legal permanent residents in this low-

EXHIBIT 4

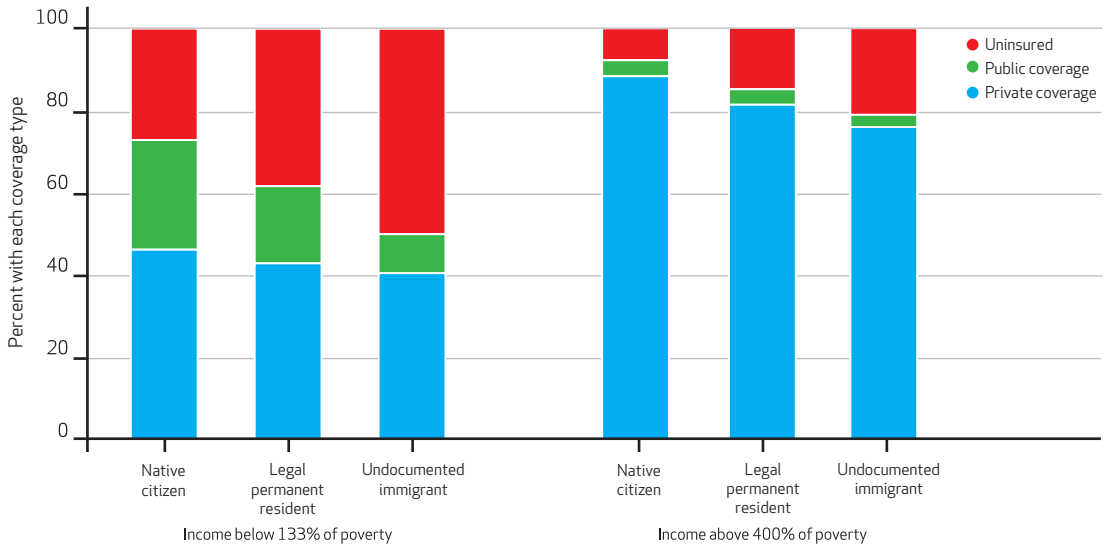
Characteristics Of Nonelderly Native-Born Citizens, Legal Permanent Residents, And Undocumented Immigrants, 1999–2007

	Immigration status (%)		
Characteristic	Native-born	Legal permanent resident	Undocumented immigrant
INCOME RELATIVE TO FEDERAL POVERTY LEVEL			
Less than 133%	21.7	34.1	41.9
133–299%	26.9	31.9	39.7
300–399%	13.7	10.1	7.6
400% or more	37.7	23.9	10.8
AGE (YEARS)			
0–18	33.2	12.3	17.1
19–29	16.2	24.5	30.8
30–44	23.3	39.4	37.5
45–54	16.0	15.2	10.7
55–64	11.3	8.6	3.9
EMPLOYER SIZE			
Unemployed	10.9	14.3	9.0
Self-employed	5.7	5.4	4.8
Fewer than 25 workers	13.1	19.5	31.4
25–99 workers	9.5	11.5	15.8
100–499 workers	11.9[a]	11.8[a]	12.6
More than 499 workers	48.9	37.6	26.6

SOURCE Annual Social and Economic Supplements of the Current Population Survey, 2000–08. **NOTES** Except as indicated, all differences are significant at $p < 0.01$. Naturalized citizens were excluded because their coverage status was very similar to that of native-born citizens. Not all percentages sum to 100 because of rounding. [a]Difference between native-born and legal permanent resident is not significant.

EXHIBIT 5

Regression-Standardized Distribution Of Insurance Coverage, By Income And Immigration Status, 1999–2007



SOURCE Annual Social and Economic Supplements of the Current Population Survey, 2000–08. **NOTES** Regression-standardized estimates held constant all characteristics discussed in the Statistical Approaches section except for immigration status and income. For regression details, see text. Naturalized citizens were excluded because their coverage status was very similar to that of native-born citizens.

income group had public coverage, only one in ten of the undocumented immigrants did. The result was that the regression-standardized uninsurance rate was almost twice as high for undocumented immigrants as it was for the native-born—49.7 percent, compared to 26.6 percent.

For those with incomes above 400 percent of the federal poverty level, overall insurance coverage was much higher, but differences in uninsurance rates across immigration status groups remained. Not surprisingly, public coverage played only a small role in this income stratum. However, because of a twelve-percentage-point gap in the regression-standardized rate of private coverage, 19.5 percent of undocumented immigrants with incomes above 400 percent of the federal poverty level were uninsured, compared to only 6.6 percent of the native-born. This difference in private coverage was not simply the result of undocumented immigrants' working in small firms or industries that were less likely to offer coverage, because the regression models controlled for both of these factors. Legal permanent residents fell in between these two groups.

Policy Implications

THE ROLE OF THE ECONOMY Undocumented immigrants contributed to the growth in the uninsured population between 1999 and 2007 roughly in proportion to the increase in their numbers as a share of the total population in the same period. This growth was not due to deteriorating insurance coverage among undocumented immigrants. Therefore, because the size of the undocumented population has declined in the period after that covered by our data, the number of uninsured people might have been expected to fall.

However, the number of uninsured adults actually rose by more than five million people overall between 2007 and 2009.[12] This growth shows that a change in the size of the undocumented population is not the only factor that drives the numbers of uninsured people. The recent recession and the effects it had on all segments of the population seem to have played a more important role than undocumented immigration in the increase in the number of uninsured people.

If undocumented immigration continues to trend downward as we move toward the full implementation of the Affordable Care Act in 2014, then recent projections[13] that this group may eventually exceed 25 percent of the uninsured population could be somewhat overstated. However, if economic conditions improve, coverage rates among the native-born and other citizens might be likely to increase before 2014. Thus, if undocumented immigration also picked up in response to a stronger economy, the share of the uninsured who are undocumented immigrants could be larger than currently expected.

The conclusion from the multivariate analysis is that even after the measurable factors that depress insurance among undocumented immigrants—for example, income, age, and employer size and industry—were controlled for, these immigrants were still less likely than native-born Americans to have health insurance. This is because undocumented immigrants with low incomes are barred from public coverage in virtually all instances, and those with higher incomes are less likely than the native-born to have private coverage.

The gap in private coverage may be because undocumented immigrants are more likely than the native-born to work at firms that do not offer coverage, or because undocumented immigrants are more likely to be ineligible for their employer's health plan or choose not to enroll. Given that estimates for legal permanent residents appear to fall somewhere between those for the native-born and undocumented immigrants, we conclude that some of the coverage disadvantage of undocumented immigrants is probably because they are not citizens, while some is because they are in the United States illegally.

HEALTH REFORM The provisions of the Affordable Care Act directly disadvantage undocumented immigrants relative to other people in similar economic circumstances. However, the act may also have some indirect effects that were not intended.

Some undocumented immigrants or their family members have insurance through an employer, perhaps because the employers do not have systems in place to adequately verify immigration status and screen out undocumented immigrants. Based on the data we presented, these employers are likely to be the types of small firms that will be exempt from the Affordable Care Act's employer mandate provisions or that will be able to purchase coverage through the new health insurance exchanges. If the reform law leads any of these firms to drop the coverage they offer, or if the exchange does a superior job of screening based on immigration status, undocumented immigrants could see further deterioration in their already low rates of private coverage.

The exclusions in the Affordable Care Act may also serve as a barrier to members of undocumented immigrants' families who might otherwise be eligible for one of the coverage options. For example, incentives to avoid enrolling native-born children with undocumented immigrant parents in Medicaid or the Children's

Health Insurance Program may also reduce coverage in the exchanges for families containing one or more undocumented immigrants.

As health reform unfolds, and undocumented immigrants emerge as an even larger share of the uninsured population, it is likely that they will become a more prominent component of safety-net health care providers' client base.[13] This could mean that such providers will feel financial stress, especially in light of the Affordable Care Act's cuts to Medicaid and Medicare disproportionate-share hospital payments.

However, other aspects of the act may make it easier for safety-net providers to serve the remaining uninsured people, including undocumented immigrants. These aspects include a larger insured patient base, which could allow safety-net providers to cross-subsidize care for the uninsured; increased funding for community health centers; and more options for using emergency Medicaid to pay for care to the uninsured.

Emergency Medicaid pays for treatment of a condition with acute symptoms that could adversely affect life or health. Most important for our analysis, it is not contingent on citizenship or legal immigration status. To qualify, a recipient must simply meet all of the financial requirements for eligibility for regular Medicaid.

None of the categorical requirements for Medicaid—for example, being a parent or a child, or being pregnant—apply. As a result, health reform could expand the use of emergency Medicaid to pay for care provided to undocumented immigrants, who often do not meet the current categorical requirements.

As public policy on undocumented immigrants now stands, their health insurance coverage problems and the access barriers they pose will not be solved without broader reform of immigration policy. Broader reform might provide a path toward citizenship for undocumented immigrants or, at a minimum, eliminate barriers to their participation in public programs. Until that hurdle is cleared, there is little reason to think that coverage of undocumented immigrants will be addressed.

The overall health policy environment for immigrants is not inviting. Legal immigrants are still unable to access public coverage if they have been in the country for less than five years. Thus, it is no surprise that systematic public approaches to solving the health insurance problems of undocumented immigrants are not on the horizon. ■

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NOTES

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9 Given that undocumented immigrants are not eligible for Medicare, Medicaid, or the Children's Health Insurance Program, there are only three explanations for how we could have categorized them as having public coverage. First, we could have misclassified some people as being undocumented. Although some measurement error is always possible, we applied a widely accepted methodology and do not believe that this was a significant problem. Second, respondents could have incorrectly reported their insurance status. Third, some undocumented immigrants could have received emergency Medicaid—coverage only for treatment after the sudden onset of a medical emergency that places the patient's health in serious jeopardy.

10 Kaiser Family Foundation. The uninsured: a primer; key facts about Americans without health insurance [Internet]. Menlo Park (CA): KFF; 2010 Dec [cited 2011 Sep 7]. Available from: http://www.kff.org/uninsured/upload/7451-06.pdf

11 Less than 16 percent of the native-born who were under age nineteen

were children born in the United States to parents who were undocumented immigrants or legal permanent residents. The insurance status of those children was closer to that of native-born children of citizens than to that of undocumented immigrant children. However, we should note that prior research has shown that children of undocumented immigrants and legal permanent residents may be less likely than children of citizens to participate in public programs. See Capps R, Kenney GM, Fix ME. Health insurance coverage of children in mixed-status immigrant families [Internet]. Washington (DC): Urban Institute; 2003 Nov 7 [cited 2011 Sep 7]. (Snapshots of America's Families III, No. 12). Available from: http://www.urban.org/publications/310886.html

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In this month's *Health Affairs*, Stephen Zuckerman and coauthors discuss the jump in the number of undocumented immigrants that occurred from 1999 to 2007 and the consequent rise in the number of the undocumented who were also uninsured. Because the Affordable Care Act did not address the coverage needs of this group, the authors write, the undocumented will constitute a larger percentage of the uninsured population after 2014 unless other actions are taken, such as a change in their immigration status.

Zuckerman and Timothy Waidmann have been working together on health policy issues at the Urban Institute since 1996. Emily Lawton joined this project to help with computer programming and data analysis.

"There are many claims about the burdens that undocumented immigrants place on the US health care system," Zuckerman says. "No national studies have tried to objectively quantify the role of this group."

Zuckerman is a senior fellow at the Urban Institute's Health Policy Center. For more than two decades as a health economist, he has studied issues related to physician payment, insurance coverage and market reforms, and the health care safety net. His work also addresses such issues as the cost of medical practices' becoming medical homes. He previously worked at the American Medical Association's Center for Health Policy Research.

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Waidmann is a senior fellow at the Health Policy Center. As a health economist for more than twenty years, he has designed and conducted studies on such topics as disability and health among the elderly, Medicare and Medicaid policy, and access to health care in vulnerable populations. He has also studied the effects of government social insurance programs on workforce behavior. Currently, he is studying geographic variation in Medicaid spending.

Before joining the Urban Institute, Waidmann was an assistant professor of public health policy and administration at the University of Michigan's School of Public Health. He has a master's degree and a doctorate in economics from the University of Michigan.

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Lawton is a research assistant at the Health Policy Center. She has experience analyzing complex survey data sets. Her bachelor's degree in mathematics and psychology is from Connecticut College.