|               | United States Government Accountability Office   |
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| GAO           | Report to the Chairman, Subcommittee<br>on Income Security and Family<br>Support, Committee on Ways and<br>Means, House of Representatives |
| November 2009 | U.S. LABOR FORCE<br>STATISTICS   |
|               | Illustrative<br>Simulations of the   |

Simulations of the Likely Effects of Underrepresenting Unauthorized Residents



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## Abbreviations

- ACS American Community Survey
- BLS Bureau of Labor Statistics
- CPS Current Population Survey
- DHS Department of Homeland Security

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United States Government Accountability Office Washington, DC 20548

November 30, 2009

The Honorable Jim McDermott Chairman Subcommittee on Income Security and Family Support Committee on Ways and Means House of Representatives

Dear Mr. Chairman:

In times of economic uncertainty as well as in times of stability, policymakers and the public rely on labor force statistics, such as the unemployment rate, to provide important information on the current state of the economy. These statistics, published by the Department of Labor's Bureau of Labor Statistics (BLS), include key figures that are based on data obtained from the Current Population Survey (CPS). The CPS, a household interview survey administered by the Department of Commerce's U.S. Census Bureau, is designed to represent the entire United States civilian noninstitutional population. However, certain U.S. residents-specifically, foreign-born persons who are not authorized to live here, to whom we refer as unauthorized residents in this report—may not be represented in CPS data to the same extent as the general population. Little research has been done on whether potential underrepresentation of the unauthorized population might noticeably affect labor statistics, but policy efforts that depend on valid and reliable labor force statistics would benefit from such information.

We agreed with your office to examine issues concerning unauthorized residents' impact on labor force statistics. We addressed the following key questions:

- 1. *Extent of underrepresentation*: What is known about the extent of any underrepresentation of unauthorized residents in CPS data used to compile labor force statistics?
- 2. *Labor force status:* What is known about the likely labor force status of unauthorized residents?
- 3. *Possible effects:* How might CPS underrepresentation of unauthorized residents affect key labor force statistics?

To answer the first two questions, we examined documents and data from and interviewed officials from the Census Bureau, the Department of Homeland Security, and BLS. We also interviewed and obtained data from immigration and statistical experts outside these agencies (see slide 44 in app. I for a listing of these experts and their roles). Additionally, we reviewed previous GAO work and other studies on unauthorized residents, government surveys, and labor force statistics and interviewed immigration advocates about these topics. To answer the third question, we conducted simulations to illustrate how undercounting unauthorized residents may have affected the unemployment rate, size of the U.S. labor force, and number of employed persons in March 2008. We determined that March 2008 was the most recent time period for which data were available that were sufficiently reliable for the purposes of our main simulations. We created the simulated statistics by first using combinations of assumptions obtained from experts about the extent of underrepresentation of unauthorized residents and their level of unemployment in March 2008. Then, because the estimates obtained from experts were uncertain, we used much broader assumptions to test the robustness of our results. We compared all of the simulated statistics with the margins of error for the original statistics. We also updated these simulations using June 2009 national labor force statistics as a test of whether changing economic conditions might affect our results.<sup>1</sup>

We conducted our work from November 2008 to November 2009 in accordance with all sections of GAO's Quality Assurance Framework that are relevant to our objectives. The framework requires that we plan and perform the engagement to obtain sufficient and appropriate evidence to meet our stated objectives and to discuss any limitations in our work. We believe that the information and data obtained, and the analysis conducted, provide a reasonable basis for any findings and conclusions.

<sup>&</sup>lt;sup>1</sup>After March 2008, the month of our detailed simulations, the U.S. unemployment rate rose, reaching 9.5 percent in June 2009. Declining economic conditions may affect the number of unauthorized residents in the United States, although recent estimates of the size of this population are not available. With this in mind, we performed sensitivity analyses that included *decreasing* the size of the unauthorized labor force (represented in the CPS data) by up to 30 percent. The sensitivity analyses indicated that a decrease of this magnitude would not change our simulation findings.

| Results in Brief                      | On October 2, 2009, we briefed your staff on the results of our work. This report formally conveys the information provided during that briefing (see app. I for the briefing slides). In general, we found the following:  |
|---------------------------------------|---|
|                                       | • The extent of CPS underrepresentation of unauthorized residents is unknown, but experts we consulted told us that the CPS data might not represent approximately 10 to 15 percent of unauthorized residents.  |
|                                       | • Little information is available about the labor force status of unauthorized residents, but experts we consulted suggested that their approximate unemployment rate in March 2008 may have been 6.5 to 8.5 percent, compared with 5.2 percent nationally.   |
|                                       | • Little is known about the effect of underrepresentation of unauthorized residents on labor force statistics. However, using the above information provided by experts, we simulated the likely effects of adding unauthorized residents assumed not represented in March 2008 labor force statistics. Because the expert assumptions were uncertain, we tested our results using a broader range of assumptions. Our simulations showed that adding unauthorized residents not represented in CPS data would likely have a minimal effect on the overall U.S. unemployment rate. The simulations did not, however, rule out the possibility that adding such residents would increase the estimated size of the national labor force and the estimated number of persons employed nationally. Updating these simulations using national labor force statistics for June 2009 revealed similar effects.  |
| Agency Comments<br>and Our Evaluation | <ul> <li>Prior to our October 2, 2009, briefing, we provided the Departments of Labor, Homeland Security, and Commerce with a draft of the briefing document and incorporated technical comments provided by the Bureau of Labor Statistics and the Census Bureau as appropriate. Homeland Security had no comments on the slides. Since then, Labor, Homeland Security, and Commerce have reviewed a draft of this report. Homeland Security had no comments, and BLS informally remarked positively on the way that our draft accounted for uncertainty related to unauthorized workers. Commerce provided written comments, reproduced in appendix II, which did not dispute any of our three main findings concerning the possible impacts of underrepresentation of unauthorized residents on national labor force statistics. However, Commerce suggested that we (1) further explicate how survey data are weighted to improve statistical representation and how we conducted our simulations, as well as providing—in this letter—more specifics about the experts we consulted; (2) remove information on the two-card (or "grouped answers") approach</li> </ul> |

for estimating the number of illegal immigrants represented in a survey, because including it implies both that this method is appropriate for use in the CPS and that it can be used to estimate underrepresentation;<sup>2</sup> and (3) reduce the range of underrepresentation in our illustrative simulations, which we vary from 0 to 50 percent, because Commerce stated that using this range gives the range more plausibility than is supported by research.

In response to Commerce's first suggestion, we added some additional information to the slides. One new footnote cites a Census Bureau publication that provides detailed information on how CPS data are weighted, and another new footnote provides a numerical illustration of how we conducted our simulations. We also added a parenthetical note in this letter, indicating the slide that lists the experts we consulted and their roles, and clarified that we consulted experts in both immigration and statistics.

In response to Commerce's second suggestion, we did not change our presentation of information on the grouped answers method for the following reasons:

• Our slide presentation clearly states that the grouped answers method is appropriate for a survey conducted by a *private-sector* organization. Consistent with Commerce's comments, we concluded in our September 2006 report<sup>3</sup> on estimating the unauthorized population that the grouped answers method is not appropriate for any existing government-conducted survey, including the CPS; the 2006 report therefore raised the possibility of a new survey designed for the foreign-born population. If the grouped answers method were validated and included in a private-sector survey of the foreign-born, the resulting data logically could be used to help assess statistics based on a government-conducted general population survey such as the CPS, as well as serve various other policy and evaluation purposes.<sup>4</sup>

<sup>&</sup>lt;sup>2</sup>The grouped answers method is described in slides 41 to 43 in appendix I of this report.

<sup>&</sup>lt;sup>3</sup>GAO, Estimating the Undocumented Population: A "Grouped Answers" Approach to Surveying Foreign-Born Respondents, GAO-06-775 (Washington, D.C.: Sept. 29, 2006).

<sup>&</sup>lt;sup>4</sup>For example, data on a respondent's legal status (such as legal permanent resident or refugee) are not collected by government-conducted general-purpose surveys such as the CPS—but potentially could be collected by a private-sector survey using an approach such as the grouped answers method. Such data are relevant to implementing various laws and evaluating various immigration policies.

While the grouped answers method is not intended to estimate underrepresentation, if validated and used in a new private-sector survey, it could provide information on specific groups within the foreign-born population (such as the number of employed unauthorized workers and the number of unauthorized workers in the labor force). Such data would be useful to the task addressed in this report in at least two ways. First, in the illustrative simulations we conducted, we made assumptions about unemployment levels within the unauthorized worker population because there was no survey estimate of unemployment for this group. The grouped answers method, applied in a new private-sector survey, might provide such an estimate. Second, our illustrative simulations used an indirect estimate of the unauthorized worker population represented in the CPS; this indirect estimate had been produced by a researcher using a subtraction method (see slide 12 of app. I) and various assumptions regarding labor force status in this group. A private-sector survey using the grouped answers method could help researchers using the subtraction method or other indirect methods by, for example, providing a survey estimate of the number of unauthorized workers represented in a privatesector survey.<sup>5</sup>

Regarding Commerce's third suggestion, we did not reduce the range of the test assumptions for underrepresentation of unauthorized workers in the CPS. Our reasons are that this report (1) already presents analyses that use fairly narrow ranges of assumptions deemed most plausible by experts (for both underrepresentation and unemployment among unauthorized workers) and (2) uses much broader ranges of 0 to 50 percent to test results produced using the fairly narrow ranges. We conducted the test simulations because of uncertainty about the narrower expert-based ranges. Specifically, using alternative assumptions of 0 to 50 percent, we tested how far "off the mark" the expert assumptions would have to be for our findings to change. Our tests show that the initial expert-based narrow-range results would hold up even if the expert-based assumptions were rather far off the mark.

<sup>&</sup>lt;sup>b</sup>Additionally, because the subtraction method estimates the unauthorized population by subtracting estimates of immigrants in specific legal status categories from an overall estimate of the total foreign-born population, researchers using this approach would be helped by grouped answers estimates of foreign-born persons in specific legal status categories (such as the number of legal permanent residents). The grouped answers method could provide direct estimates of these categories.

Finally, Commerce provided additional information about correspondence between GAO and the Census Bureau concerning an open GAO recommendation.<sup>6</sup> This recommendation dates from 1998 and concerns devising a plan of research for evaluating the quality of census and survey data on foreign-born persons. There have been various communications in addition to the letter referenced by the Census Bureau,<sup>7</sup> but the Census Bureau has not proposed a strategy or plan of research for evaluating the quality of census and survey data on foreign-born persons. Innovative thinking and collaboration may be required to make progress on this longterm recommendation. For example, one approach may be for the Census Bureau to design research and evaluation options that it might pursue in partnership or coordination with others (such as other federal agencies, universities, or private-sector organizations).

As agreed with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 7 days from the report date. We will then send copies of this report to relevant congressional committees, the Secretary of Labor, the Secretary of Commerce, the Secretary of Homeland Security, and other interested parties. In addition, this report will be available at no charge on GAO's Web site at http://www.gao.gov.

<sup>&</sup>lt;sup>6</sup>GAO, *Immigration Statistics: Information Gaps, Quality Issues Limit Utility of Federal Data to Policymakers*, GAO/GGD-98-164 (Washington, D.C.: July 31, 1998).

<sup>&</sup>lt;sup>7</sup>Perhaps most notably, in addition to the letter mentioned by the Census Bureau, we outlined various possible approaches that Census might take in estimating undercoverage of foreign-born persons, including a new record linkage (data-matching) approach. We shared this information with Census Bureau staff at a meeting and subsequently discussed this and other possible methods with them during 2008. We also made additional suggestions in a February 2009 letter to the Census Bureau.

If you or your staff have any questions about this report, please contact either Nancy Kingsbury at (202) 512-2700 or kingsburyn@gao.gov or Cornelia Ashby at (202) 512-7215 or ashbyc@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed on slide 47 of appendix I.

Sincerely yours,

Naucy R. Kurgsbury

Nancy Kingsbury Managing Director, Applied Research and Methods

Cornelia M. ashby

Cornelia M. Ashby Director, Education, Workforce, and Income Security Issues

## Appendix I: Briefing Slides





















![](_page_19_Figure_1.jpeg)

![](_page_20_Figure_1.jpeg)

<sup>2</sup>This number, estimated using primarily DHS data, includes persons such as legal permanent residents and refugees.

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| ++ | Background  |
|----|---|
| ×  | Previous GAO Work (cont.)   |
| ×  | <ul> <li>In 2004, we reported that lack of data precluded us from estimating<br/>the cost of educating children who are not authorized to reside in<br/>the United States (GAO-04-733).</li> </ul>  |
|    | <ul> <li>In 2006, we reported that foreign-born respondents appear to<br/>accept an innovative method of asking about legal status in<br/>personal interviews conducted by a nongovernment entity (GAO-<br/>06-775).<sup>1</sup></li> </ul>   |
|    |   |
|    | <sup>1</sup> This survey approach groups legal statuses in boxes on a flash card. Each foreign-born respondent chooses the box containing his or her legal status, along with other statuses. No one specifically chooses the unauthorized status. See appendix D for more details. |

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## Appendix II: Comments from the Department of Commerce

|   | UNITED STATES DEPARTMENT OF COMMERCE<br>The Under Secretary for Economic Affairs<br>Washington, D.C. 20230   |
|---|--|
|   | NOV 1 0 2008   |
| Cornelia M. Ashby<br>Director<br>Education, Workforce, and Incor<br>Security Issues<br>United States Government Accou<br>Washington, DC 20548 | ne<br>Intability Office  |
| Dear Ms. Ashby:   |  |
| The U.S. Department of C<br>United States Government Accound<br>and U.S. Labor Force Statistics:<br>(GAO-10-99). The Department's             | Commerce appreciates the opportunity to comment on the intability Office's draft report entitled: Unauthorized Residents illustrative Simulations of the Likely Effects of Undercounting s comments on this report are enclosed. |
|   | Sincerely,<br>Rebecco M Slaule   |
|   | /<br>Rebecca M. Blank  |
| Enclosure   |  |
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![](_page_58_Picture_1.jpeg)

| <ul> <li>Including 0 to 50 percent as a range for rates of under-representation of the unauthorized immigrants in the CPS in a published GAO report gives the extreme values of this range plausibility not supported by any research. It invites taking these results out of context and using them as legitimate measures of undercoverage. We recommend reducing this range.</li> <li>We would be happy to work with GAO to identify additional survey data on the foreign born that is required to implement laws and evaluate policies, as referred to on slide 29.</li> <li>The letter referred to on slide 13 was sent to GAO on February 26, 2008 and explained why the Census Bureau does not estimate coverage of the foreign born in decennial Censuses and why a census post-enumeration survey is not a vehicle that provide the foreign born.</li> </ul> |
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| can be used to estimate coverage of the foreign born.  |
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