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September 10, 2019

Congressional Committees

**Department of Homeland Security: Review of Report on Agency Estimates of Foreign Nationals Unlawfully Residing in the U.S.**

Under U.S. immigration law, there are various types of immigration benefits that provide lawful immigration status or presence in the United States on a temporary or permanent basis. Foreign nationals in the United States without valid immigration status or protection are unlawfully present. Information about the size and composition of the unlawfully present population can help inform immigration and border security-related policy decisions. The Department of Homeland Security’s (DHS) Office of Immigration Statistics (OIS) has the primary responsibility for collecting and disseminating statistical information and analysis used in evaluating the impacts of immigration laws, migration flows, and immigration enforcement.<sup>1</sup> Such data includes information on the overall population of foreign nationals in the United States and the number of such foreign nationals who are unlawfully present, among other data. DHS must submit to Congress annually a report containing information required by statute, including an analysis of trends in immigration and naturalization.<sup>2</sup> OIS addresses the requirement to estimate the unlawfully present population by publishing annual estimates of the population of foreign-born individuals unlawfully residing in the United States, most recently in December 2018.<sup>3</sup>

DHS uses a residual estimation methodology to estimate the foreign-born population unlawfully residing in the United States. DHS’s residual method consists of subtracting the estimated legally resident foreign-born population—calculated using DHS administrative records—from the estimated total foreign-born population—obtained from the American Community Survey administered by the U.S. Census Bureau—as shown in figure 1. This results in the "residual" of the unlawfully resident population. In its December 2018 report, DHS estimated the size of the unlawfully resident population was 11.96 million as of January 1, 2015.

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<sup>1</sup>Immigration and Nationality Act, Pub. L. No. 82-414, tit. I, § 103(d), 66 Stat. 163, 173-4 (1952) (classified, as amended, at 8 U.S.C. § 1103(d)).

<sup>2</sup>8 U.S.C. § 1103(e).

<sup>3</sup>DHS bases its annual estimate, in part, on data collected in the American Community Survey conducted by the U.S. Census Bureau, which is sent to residences and captures information on individuals and households living in the United States. As a result, DHS’s estimate of the unlawfully present population focuses on the population unlawfully residing in the United States, and does not include those it describes as unlawfully present non-residents (e.g. tourists who briefly stayed longer than their visas allowed). For the purposes of this report, we use the term “unlawfully resident population” in reference to the population on which DHS bases its efforts to respond to the requirement that it estimate the unlawfully present population. DHS OIS, *Population Estimates – Illegal Alien Population Residing in the United States: January 2015* (December 2018).

**Figure 1: Department of Homeland Security’s (DHS) Methodology for Estimating the Unlawfully Resident Population in the United States**



Source: GAO analysis of DHS information. | GAO-19-640R

The Explanatory Statement accompanying the Consolidated Appropriations Act, 2018 (2018 Explanatory Statement), directed DHS to report within 180 days after enactment on how to improve its collection and use of data sets necessary to develop an estimate for the entire population of those illegally present in the United States.<sup>4</sup> DHS responded to this directive through a March 2019 report prepared by OIS titled *Potential Improvements to DHS Illegal Alien Population Estimates: Collection and Use of Data*.<sup>5</sup> The 2018 Explanatory Statement also included a provision for us to review DHS’s report and provide a preliminary briefing to the House and Senate Appropriations committees on our review within 90 days after DHS’s report is provided to the committees. This report transmits, in the form of the enclosed briefing, our assessment of DHS’s report and its findings that we provided to you electronically on June 3, 2019. The briefing examines limitations DHS identified in its estimates of the unlawfully resident population and how DHS plans to improve its estimates.

To examine limitations DHS identified in its estimates of the unlawfully resident population, we analyzed OIS reports presenting annual estimates of the foreign-born population unlawfully residing in the United States published from 2006 (the first year DHS reported estimates) through December 2018. We also reviewed DHS’s March 2019 report discussing possible ways to improve the estimates and interviewed OIS officials to discuss the limitations DHS identified and how they affect the estimates, as well as the anticipated benefits of possible approaches for improving the estimates, steps needed to implement them, and their implementation status. In addition, we reviewed other reports, such as prior GAO reports, academic literature, and think tank publications, to compare how other groups estimate the size of this population using residual estimation and to obtain information related to limitations DHS identified with its estimation methodology and potential improvements.<sup>6</sup> Additionally, we interviewed officials from two entities that consistently publish estimates of the unlawful population—the Pew Research

<sup>4</sup>164 Cong. Rec. H2045, H2545 (daily ed. March 22, 2018), accompanying Pub. L. No. 115-141, 132 Stat. 348.

<sup>5</sup>Department of Homeland Security, Deputy Under Secretary for Management, *Potential Improvements to DHS Illegal Alien Population Estimates: Collection and Use of Data* (Washington, D.C.: March 5, 2019).

<sup>6</sup>We reviewed academic literature and publications cited by DHS in its March 2019 report or identified during interviews we conducted, as well as reports published by the Pew Research Center and Center for Migration Studies. We reviewed prior GAO reports, including: GAO, *Department of Homeland Security: Review of the Fiscal Year 2017 Entry/Exit Overstay Report*, [GAO-19-298R](#) (Washington, D.C.: February 22, 2019); *Immigration Benefits System: Significant Risks in USCIS’s Efforts to Develop Adjudication and Case Management System*, [GAO-17-486T](#) (Washington, D.C.: Mar. 16, 2017); and *Border Security: DHS Has Made Progress in Planning for a Biometric Air Exit System and Reporting Overstays, but Challenges Remain*, [GAO-17-170](#) (Washington, D.C.: Feb. 27, 2017).

Center and the Center for Migration Studies—as well as researchers DHS officials identified as undertaking research that could help inform the approaches DHS proposed. We obtained perspectives from these stakeholders on limitations to current estimation methods and how the estimates could be strengthened.

We conducted this performance audit from March 2019 to September 2019 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

In summary, we found that DHS has identified various limitations in its estimates of the unlawfully resident population in the United States and eight possible ways to improve its estimates. OIG officials and stakeholders identified limitations that most significantly impact DHS's estimates to be uncertainty regarding the size of the American Community Survey undercount, which affects the estimate of the size of the total foreign-born population, and uncertainty regarding emigration rates of foreign nationals, which affects the estimate of the legally resident foreign-born population.<sup>7</sup> DHS does not know the full impact of these limitations, but in its March 2012 report presenting estimates, DHS included information on how the assumptions it made about the undercount and migration rates impacted its estimates for 2011.<sup>8</sup> Specifically, DHS reported that doubling the undercount rate from 10 percent to 20 percent raised the estimate of the unlawfully residing population from 11.5 million to 13 million people, and that by lowering and raising emigration rates 20 percent, the unlawfully resident population ranged from 10.7 million to 12.3 million people.

DHS also reported limitations related to immigrant mortality data, which is another element that affects the estimate of the legally resident foreign-born population. DHS uses mortality rates that are estimated from standard demographic tables published by the Centers for Disease Control in 2008. However, DHS reported that the tables are known to overestimate mortality for foreign-born populations, but that the tables are still the best available tool to estimate mortality. DHS identified other limitations that are discussed further in the enclosure.

DHS's March 2019 report identified eight possible approaches the department or other entities could take to improve the estimates. Some approaches address limitations DHS and stakeholders identified as the most significant, and others aim to improve DHS data systems to strengthen DHS's population estimates and improve its overall immigration reporting and analysis. In its report, DHS noted there could be challenges and costs associated with its proposed approaches, but reported it had not weighed the relative costs or benefits. DHS has ongoing work that should help implement three of the eight approaches proposed in its report (approaches 3, 4, and 6 in table 1 below). In addition, DHS proposed coordinating with outside entities to implement four of the five approaches where DHS does not have work already underway. Table 1 provides a description of each proposed approach.

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<sup>7</sup>Given that not all individuals may respond to the American Community Survey, DHS and stakeholders indicated that the survey may undercount the number of foreign-born individuals residing in the United States.

<sup>8</sup>Department of Homeland Security, Office of Immigration Statistics, *Estimates of the Unauthorized Immigrant Population Residing in the United States: January 2011* (March 2012).

**Table 1: Department of Homeland Security’s (DHS) Proposed Approaches to Improve Estimates of the Unlawfully Resident Population**

DHS approach	DHS approach explanation
1. Assess the size of the undercount of foreign-born populations in the U.S. Census American Community Survey (ACS)	DHS proposed that the U.S. Census Bureau or a private-sector research body could assess the ACS undercount for foreign-born populations. According to DHS officials and stakeholders, assessing the size of the ACS undercount, especially by nativity and legal status, could improve DHS estimates by providing a more accurate basis for its estimate of the total foreign-born population.
2. Develop nativity-specific mortality estimates	DHS proposed that the U.S. Census Bureau or a private-sector research body could produce nativity-specific mortality estimates—according to country of birth. According to DHS officials and stakeholders, creating nativity-specific mortality estimates could improve DHS estimates by increasing the accuracy of mortality rates used to estimate the legally resident foreign-born population.
3. Collect additional information about foreign-born departures	DHS proposed that the U.S. Census Bureau or a private-sector research body could collect survey data on emigration rates specific to lawful permanent residents (LPR) and on the current residency status of nonimmigrants not known to have departed the United States. OIS officials also told us that once the department completes a reliable land-based entry/exit system to complement the existing air- and sea-based system, OIS will incorporate departure information derived from entry/exit data in its nonimmigrant population estimates. According to DHS officials and stakeholders, updating emigration rates could improve DHS estimates by increasing the accuracy of rates used to estimate the legally resident foreign-born population.
4. Implement the DHS Immigration Data Integration Initiative (IDII)	DHS proposed an internal effort to implement its IDII, which involves copying and linking together data from multiple immigration data systems to a single environment. DHS expects to use IDII data to match each admissions record to the immigrant’s current status more accurately and to determine whether the immigrant has departed the country, strengthening and simplifying its estimates.
5. Assign unique identifiers to nonimmigrants	DHS proposed an internal effort to assign unique, person-specific identifiers to nonimmigrant visitors in its data systems. According to DHS officials, assigning unique identifiers would allow the department to link nonimmigrant and LPR records more reliably and to more easily track adjustments to immigration status. This would allow DHS to more accurately determine which individuals should be included in the nonimmigrant versus LPR populations from year to year.
6. Capture additional immigration benefits data in electronic data systems	DHS proposed an internal effort to capture most or all data elements on immigration benefits forms in its electronic systems. According to DHS officials, capturing additional immigration benefits data in electronic systems could add descriptive data to its legally resident population estimates, but would not affect total estimates of, or descriptive information available about, the unlawfully resident population.
7. Launch a new version of the New Immigrant Survey	DHS proposed that federal agencies and private-sector partners could work with DHS to launch a new version of the New Immigrant Survey. According to DHS, a new survey could be used to strengthen DHS’s estimates of foreign-born departures and mortality by asking questions on emigration and health measures, which would impact its estimates of the legally resident foreign-born population.
8. Include questions about LPR status adjustments in the Census Survey of Income and Program Participation	DHS proposed that the U.S. Census Bureau could include questions about adjustments to LPR status in its Census Survey of Income Program Participation. According to DHS officials, this approach could enable DHS to provide more detailed demographic data to describe the unlawfully resident population, but would not affect the total estimate of this population.

Source: GAO analysis of DHS information. | GAO-19-640R

The enclosure below presents further information on each approach, including anticipated benefits, limitations addressed, and implementation status.

## Agency Comments

We provided a draft of this report to DHS for comment. DHS provided technical comments, which we incorporated as appropriate.

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We are sending copies of this report to the appropriate congressional committees, the Secretary of Homeland Security, and other interested parties. In addition, the report is available at no charge on the GAO website at [www.gao.gov](http://www.gao.gov).

If you or your staff have any questions about this report, please contact me at (202) 512-8777 or [GamblerR@GAO.gov](mailto:GamblerR@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 include Taylor Matheson (Assistant Director), Kelsey M. Carpenter, Eric Hauswirth, Brendan Kretzschmar, Amanda Miller, Sasan J. Najmi, Claire Peachey, Jeff Tessin, and Britney Tsao.



Rebecca Gambler  
Director, Homeland Security and Justice

Enclosure

### *List of Committees*

The Honorable Shelley Moore Capito  
Chairman

The Honorable Jon Tester  
Ranking Member  
Subcommittee on Homeland Security  
Committee on Appropriations  
United States Senate

The Honorable Lucille Roybal-Allard  
Chairwoman  
The Honorable Chuck Fleischmann  
Ranking Member  
Subcommittee on Homeland Security  
Committee on Appropriations  
House of Representatives



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**Department of Homeland Security: Review of Report on  
Agency Estimates of Foreign Nationals Unlawfully Residing in  
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**Information Provided to Staff of the House and  
Senate Appropriations Committees**

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For more information, contact Rebecca Gambler ([GamblerR@gao.gov](mailto:GamblerR@gao.gov))

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## Introduction

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- Under U.S. immigration law, there are various types of immigration benefits that provide lawful immigration status or presence in the United States on a temporary or permanent basis. Foreign nationals in the United States without valid immigration status or protection are unlawfully present.
- Information about the size and composition of the unlawfully present population in the United States can help inform immigration and border security-related policy decisions.
- Consistent with the Immigration and Nationality Act, as amended, the Office of Immigration Statistics (OIS), within the Department of Homeland Security's (DHS) Office of Strategy, Policy, and Plans, leads the collection and dissemination of statistical information and analysis useful in evaluating the impacts of immigration laws, migration flows, and immigration enforcement.<sup>1</sup> Such information is to include various data, such as information on the overall population of foreign nationals in the United States and the number of such foreign nationals who are unlawfully present in the United States.

<sup>1</sup>Immigration and Nationality Act § 103(d) (8 U.S.C. § 1103(d)).

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## Introduction (cont.)

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- DHS, through OIS, is to submit to Congress annually a report containing information required by statute, including an analysis of trends in immigration and naturalization.<sup>2</sup> OIS addresses the requirement to estimate the population of foreign nationals who are unlawfully present in the United States by publishing estimates of the population of foreign-born individuals unlawfully residing in the United States, most recently in December 2018.<sup>3</sup>

<sup>2</sup>Immigration and Nationality Act § 103(e) (8 U.S.C. § 1103(e)).

<sup>3</sup>DHS bases its annual estimate, in part, on data collected in the American Community Survey conducted by the U.S. Census Bureau, which is sent to residences and captures information on individuals and households living in the United States. As a result, DHS's estimate of the unlawfully present population focuses on the population unlawfully residing in the United States, and does not include those it describes as unlawfully present non-residents (e.g. tourists). For the purposes of this briefing, we use the term "unlawfully resident population" in reference to the population on which DHS bases its efforts to respond to the requirement that it estimate the unlawfully present population. DHS OIS, *Population Estimates – Illegal Alien Population Residing in the United States: January 2015* (December 2018).

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## Legislative Language and GAO Objective

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- The Explanatory Statement accompanying the Consolidated Appropriations Act, 2018, directed DHS to report within 180 days of the date of enactment on how to improve its collection and use of data sets necessary to develop an estimate for the entire population of those illegally present in the United States.<sup>4</sup>
- In March 2019, DHS responded to this directive through a report prepared by OIS titled *Potential Improvements to DHS Illegal Alien Population Estimates: Collection and Use of Data*.<sup>5</sup>
- The Explanatory Statement also included a provision for GAO to review DHS's report and provide a preliminary briefing to the House and Senate Appropriations Committees within 90 days after DHS's report is provided to the committees.
- This briefing examines limitations DHS has identified in its estimates of the population of individuals unlawfully residing in the United States, and how DHS plans to improve its estimates.

<sup>4</sup>164 Cong. Rec. H2045, H2545 (daily ed. March 22, 2018), accompanying Pub. L. No. 115-141, 132 Stat. 348.

<sup>5</sup>DHS, Deputy Under Secretary for Management, *Potential Improvements to DHS Illegal Alien Population Estimates: Collection and Use of Data* (Washington, D.C.: March 5, 2019).

## Scope and Methodology

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- To address our objective, we analyzed OIS reports presenting annual estimates of the foreign-born population unlawfully residing in the United States published from 2006 (the first year DHS reported estimates) through December 2018. We also reviewed DHS's March 2019 report discussing ways to improve the estimates and interviewed OIS officials to determine:
  - limitations DHS identified with its estimates of the foreign-born population unlawfully residing in the United States and how the limitations affect the estimates; and
  - possible approaches DHS identified for improving its estimates, including anticipated benefits of these approaches, steps their implementation would require, and their implementation status.
- We also reviewed other reports regarding estimating the unlawfully resident population, such as prior GAO reports, academic literature, and think tank publications to:
  - compare how other groups estimate the size of this population using residual estimation, and
  - obtain information related to limitations DHS identifies with its estimation methodology and potential improvements.<sup>6</sup>

<sup>6</sup>We reviewed academic literature and think tank publications cited by DHS in its March 2019 report or identified during interviews we conducted, as well as reports published by the Pew Research Center and Center for Migration Studies. We reviewed prior GAO reports, including: GAO, *Department of Homeland Security: Review of the Fiscal Year 2017 Entry/Exit Overstay Report*, [GAO-19-298R](#) (Washington, D.C.: February 22, 2019); *Immigration Benefits System: Significant Risks in USCIS's Efforts to Develop Adjudication and Case Management System*, [GAO-17-486T](#) (Washington, D.C.: Mar. 16, 2017); and *Border Security: DHS Has Made Progress in Planning for a Biometric Air Exit System and Reporting Overstays, but Challenges Remain*, [GAO-17-170](#) (Washington, D.C.: Feb. 27, 2017).

## Scope and Methodology (cont.)

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- Additionally, we interviewed officials from two entities that consistently publish estimates of the unlawful population—the Pew Research Center (Pew) and the Center for Migration Studies (CMS)—as well as researchers DHS officials identified as undertaking research that could help inform the approaches DHS proposed. We obtained perspectives from these stakeholders on limitations to current estimation methods and how the estimates could be strengthened.
- DHS provided technical comments on the contents of this briefing that we incorporated as appropriate.

## Summary of Observations

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- **Limitations to estimates.** DHS identified various limitations in its estimates of the foreign-born unlawfully resident population in the United States. To estimate the size of this population, DHS subtracts the estimated *legally resident* foreign-born population from the estimated *total* foreign-born population. DHS and stakeholders identified the most significant limitations to DHS estimates to be (1) uncertainty regarding undercounts in the U.S. Census's American Community Survey (ACS), the source DHS uses to estimate the total foreign-born population living in the United States; and (2) incomplete information on the number of legally resident immigrants who have departed the United States.
- **Approaches to improve estimates.** DHS identified eight possible approaches that it, other government agencies, or nongovernmental research bodies could take to improve the collection and use of data to address these limitations and improve its estimates. In its report, DHS noted there could be challenges and costs associated with proposed approaches, but reported it had not weighed the relative costs or benefits.
  - Some approaches address the limitations DHS and stakeholders identified as the most significant, and others aim to improve DHS data systems to strengthen DHS's population estimates and improve its overall immigration reporting and analysis. Collectively, the approaches address some, but not all, of the limitations DHS identified.
  - DHS has ongoing work that should help implement three of the eight approaches, and proposed potentially coordinating with outside entities to implement four of the five approaches not underway.

## Background – Definitions

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- DHS uses data on the legally resident foreign-born population to develop its estimates, including:
  - **Lawful Permanent Residents (LPR):** LPRs are foreign nationals who are lawfully authorized to live and work permanently within the United States. LPRs may apply to become U.S. citizens if they meet certain eligibility requirements.<sup>7</sup>
  - **Asylees:** Asylum is a form of humanitarian protection that may be provided to foreign nationals arriving or present in the United States if they qualify as “refugees” as statutorily defined. Refugees are to have suffered, or have a well-founded fear of persecution based on protected grounds. Subject to certain criteria, an individual who is granted asylum can remain in the United States and apply for LPR status after 1 year.<sup>8</sup>
  - **Refugees:** Admission as a refugee from abroad confers the same protected status as asylum, but refugees are required to apply for LPR status after 1 year of coming to the United States.<sup>9</sup>
  - **Nonimmigrants:** Nonimmigrants are temporary visitors in the United States for an authorized period of stay. For the purposes of its December 2018 report, DHS specified that the department restricted its nonimmigrant estimates to classes of admission such as students or temporary workers whose length of stay typically exceeded 2 months. The DHS estimate does not include people visiting the United States for a shorter period of time, such as tourists.<sup>10</sup>

<sup>7</sup>See, generally, 8 U.S.C. ch. 12, subch. III, pt. II (§§ 1421-58).

<sup>8</sup>8 U.S.C. §§ 1158, 1159(b).

<sup>9</sup>8 U.S.C. §§ 1157, 1159(a).

<sup>10</sup>Nonimmigrant categories are defined under 8 U.S.C. § 1101(a)(15). Data sources DHS used to estimate the population residing unlawfully in the United States can be found in appendix I.

## Background — Residual Estimation Methodology

- DHS uses a residual estimation methodology to estimate the foreign-born population unlawfully residing in the United States. DHS's residual method consists of subtracting the estimated legally resident foreign-born population from the estimated total foreign-born population, as shown in figure 1. This results in the "residual" of the unlawfully resident population.

**Figure 1: Department of Homeland Security’s (DHS) Methodology for Estimating the Unlawfully Resident Population in the United States**



Source: GAO analysis of DHS information. | GAO-19-640R

- Residual estimation is used by demographers to estimate the size of this population.<sup>11</sup> In addition to DHS, both Pew and CMS use residual estimation methods, although Pew and CMS make additional adjustments to their residual estimates using record-level census data.

<sup>11</sup>See, for example, Vincenzo Caponi and Miana Plesca, "Empirical Characteristics of Legal and Illegal Immigrants in the USA," *Journal of Population Economics*, vol. 27, no. 4 (October 2014): pp. 923-960; and Robert Warren, "Democratizing Data about Unauthorized Residents in the United States: Estimates and Public-Use Data, 2010 to 2013," *Journal on Migration and Human Security*, vol. 2, no. 4 (2014): pp. 305-328.

## Background — DHS’s Methodology, Step 1, Estimate the Total Foreign-born Population

**Step 1:** Estimate the total foreign-born population residing in the United States. In its December 2018 report, DHS estimated this population as of January 1, 2015.

- DHS used the 2014 ACS Public Use Microdata Sample to estimate the number of all foreign-born residents who entered the United States between 1980 and December 31, 2014.<sup>12</sup> The ACS is a nationwide survey conducted by the U.S. Census Bureau and is made up of samples of the population, taken monthly, that provide demographic information throughout the year.
- DHS removed all Cuban-born persons from the population estimate because according to U.S. immigration law, most Cubans admitted to the United States were eligible for adjustment to LPR status after 1 year.<sup>13</sup>
- DHS adjusted the estimate of the foreign-born population to account for potentially unequal response rates among this population. Specifically, according to DHS’s December 2018 report and literature DHS cites, foreign-born individuals are less likely than native-born Americans to respond to or to be included in responses to government surveys. DHS’s methods for adjusting the total foreign-born population are discussed further below.

Based on this step, DHS reported in December 2018 that the adjusted estimate of the total foreign-born population was 36,490,000.

<sup>12</sup>According to its December 2018 report, for the purposes of its estimates, DHS assumes that residents who entered the United States prior to 1980 have legal status since they would have become eligible to adjust their LPR status under section 249 of the Immigration and Nationality Act, as amended, which specifies that qualified individuals residing continuously in the United States since before January 1, 1972, and meeting other criteria, may be granted LPR status as of the date of the application approval. See 8 U.S.C. § 1259.

<sup>13</sup>See 8 U.S.C. § 1255 note.

## Background — DHS’s Methodology, Step 2, Estimate the Legally Resident Foreign-born Population

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### Step 2: Estimate the legally resident foreign-born population.

- DHS uses administrative data to determine the legally resident foreign-born population.<sup>14</sup> According to DHS’s December 2018 report, the legally resident population included foreign-born persons who were:
  - Naturalized citizens,
  - granted LPR status,
  - granted asylum or admitted as refugees, or
  - admitted under certain nonimmigrant classes that DHS determines as being associated with residence (e.g., students or temporary workers).
- DHS adjusted the estimated legally resident foreign-born population for factors such as emigration—how many residents left the country since their arrival—and mortality—how many residents died since their arrival.

Based on this step, DHS reported in December 2018 that, as of January 1, 2015, the adjusted estimate of the legally resident foreign-born population was 24,520,000.

<sup>14</sup>See appendix I for more information on the administrative databases DHS used to determine the legally resident foreign-born population in the United States as of January 1, 2015.

## Background — DHS’s Methodology, Step 3, Subtract Legally Resident Population from Total Population

**Step 3:** Subtract the estimated legally resident foreign-born population (Step 2) from the total foreign-born population (Step 1) to yield the estimate of the population unlawfully residing in the United States (“the residual”). Based on this step, DHS provided the following estimates in its December 2018 report:

**Figure 2: Department of Homeland Security’s (DHS) Estimates of the Unlawfully Resident Population in the United States as of January 1, 2015**



Source: GAO analysis of DHS information. | GAO-19-640R

Notes: Sum does not total because of rounding.

Additionally, DHS reported that, for the purpose of its estimates, it considers persons with Temporary Protected Status, persons who fall under the Deferred Action for Childhood Arrivals program, persons who are awaiting removal proceedings in immigration court, and persons without lawful status who are in the process of applying for Lawful Permanent Resident status to be part of the unlawfully resident population.

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## Background — DHS’s Annual Reports on Unlawfully Resident Populations

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- In its December 2018 report, DHS presented both the estimated total size of the unlawfully resident population in the United States and descriptive statistics about that population.
- DHS reported estimates of the unlawfully resident population for each year from 2005 until January 2015, the latest year for which data were available.<sup>15</sup> According to DHS, the total population unlawfully resident in the United States has ranged between 10 million and 12 million persons every year since DHS began publishing the estimates in 2006.
- DHS also provided more detailed descriptions about the unlawfully resident population, providing estimates of the population by period of entry—meaning how long ago they came to the United States—and by country of origin, state of residence, age, and sex.

<sup>15</sup>DHS officials stated that the reason its December 2018 report includes estimates as of January 2015 is because there is a lag between when the ACS survey is conducted and when the data become available. In addition, DHS officials stated that the report takes time and resources to develop, and then goes through a period of review, which adds to the time between the most recent data DHS includes in its report and when the report is issued.

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## Background — Comparison of DHS, CMS, and Pew Methodologies

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- DHS, Pew, and CMS all use residual methods and ACS data to estimate the population unlawfully residing in the United States, and their results for 2015 all fall between 11 and 12 million.
  - DHS: 11,960,000 people
  - Pew: 11,000,000 people<sup>16</sup>
  - CMS: 11,000,000 people<sup>17</sup>
- Pew and CMS’s estimating methodologies differ from DHS’s methodology in a few ways. For example, both CMS and Pew use ACS respondent-level data to provide a more granular level of information about their population estimates, account for limitations or uncertainty in the ACS and other population data differently, and use techniques such as logical edits to further refine their estimates.
- CMS used the residual method to estimate the unlawfully resident population in the United States in 2010. CMS updated its 2010 estimate in subsequent years by calculating the net annual change in the unlawfully resident population since 2010 using ratios constructed from ACS data. This means that unlike DHS and Pew, CMS does not recalculate the unlawfully resident population from scratch each year using the residual method.

<sup>16</sup>Jeffrey S. Passel and D’vera Cohn, “As Mexican Share Declined, U.S. Unauthorized Immigrant Population Fell in 2015 below Recession Level,” (Washington, D.C.: Pew Research Center, April 25, 2017), accessed May 3, 2019, <https://www.pewresearch.org/fact-tank/2017/04/25/as-mexican-share-declined-u-s-unauthorized-immigrant-population-fell-in-2015-below-recession-level/>.

<sup>17</sup>Robert Warren, “The Estimated Undocumented Population is 11 Million: How Do We Know?” (New York: Center for Migration Studies, September 8, 2015), accessed May 3, 2019, <https://cmsny.org/publications/warren-11million/>.

## Background — Differences in DHS, CMS, and Pew Adjustments for Uncertainty in the ACS Data

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- **ACS undercount.** Given that not all individuals may respond to the survey, DHS, Pew, and CMS have indicated that ACS data may undercount the number of foreign born individuals residing in the United States. In their methodologies, all three entities make assumptions and adjustments to help account for this uncertainty.
  - OIS officials stated that DHS uses rates to estimate the portion of the population underrepresented in the ACS that do not vary according to year of entry. Specifically, DHS assumes the ACS undercounts LPRs, refugees, and asylees at a rate of 2.5 percent, and nonimmigrants and unlawfully resident persons at a rate of 10 percent.
  - CMS and Pew officials reported they use estimates of the undercount that vary according to time since entry, based on studies showing survey undercount may decline the longer an immigrant has resided in the United States. For example, a Pew representative explained that immigrants who have lived in the United States for 25 years, for instance, would be more likely to respond to the ACS than newer immigrants who arrived in the past 5 or 10 years. Pew incorporates other demographic differences into its undercount estimates, such as age, sex, and country of birth based on Census Bureau studies. According to DHS officials, DHS estimates a larger foreign-born population than CMS or Pew, in part because DHS assumes the undercount for foreign-born residents is constant, regardless of how long they have lived in the United States.
- **Logical edits.** Both CMS and Pew make logical edits to the ACS population using characteristics in the individual-level ACS data. For example, CMS and Pew make assumptions that survey respondents indicating they work in occupations that require legal status, or who report receiving federal benefits, are actually legal residents, and include them in the estimate of the legally resident population.

## Background — Differences in DHS, CMS, and Pew Adjustments for Uncertainty in the ACS Data (cont.)

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- **Base year.** As discussed previously, DHS uses a base year of 1980 for its estimates. However, CMS and Pew reported using a base year of 1982 to derive their population estimates because unlawful residents who entered the United States before January 1, 1982, and remained without status continuously through their application filing date were eligible to adjust to LPR status under the Immigration Reform and Control Act of 1986.<sup>18</sup> OIS officials told us that using different base years could result in different estimates.
- **Emigration rates.** Emigration rates are uncertain because there are limitations to the data the United States collects on the migration of legal immigrants in and out of the country. DHS uses rates based on a Census Bureau report published in 1994 to account for departures by the legally resident population.<sup>19</sup> CMS referenced the same 1994 report, but derives its own emigration rates. Pew also derives its own estimates for emigration rates based on the same report and Census Bureau updates, but incorporates ACS demographic data to account for differences in emigration for younger and older immigrants, based on the length of time immigrants report being in the United States, and based on region of birth.

<sup>18</sup>See 8 U.S.C. 1255a.

<sup>19</sup>B. Ahmed, and J.G. Robinson, *Estimates of Emigration of the Foreign-Born Population: 1980 – 1990*. Technical Working Paper No. 9. (Washington, D.C.: U.S. Bureau of the Census, December 1994).

## DHS Identified Various Limitations and Eight Possible Ways to Improve Its Estimates of the Unlawfully Resident Population

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- DHS reports and officials identified various limitations with the department's estimates of the unlawfully resident population. These limitations include:
- **ACS undercount and emigration rates.** OIS officials and stakeholders identified uncertainty regarding the size of the ACS undercount and emigration rates as limitations that most significantly impact DHS's estimates. DHS does not know the full impact of these limitations, but in its March 2012 report presenting estimates, DHS included information on how the assumptions it made about the ACS undercount and emigration impacted its estimates for 2011.<sup>20</sup> Specifically, DHS reported that doubling the undercount rate from 10 percent to 20 percent raised the estimate of the unlawfully residing population from 11.5 million to 13 million people, and that by lowering and raising emigration rates 20 percent, the unlawfully residing population ranged from 10.7 million to 12.3 million people.
- **Mortality rates.** DHS also reported data limitations related to immigrant mortality. DHS uses mortality rates that are estimated from standard demographic tables published by the Centers for Disease Control and Prevention in 2008. However, DHS reported that the tables are known to overestimate mortality for foreign-born populations, but that the tables are still the best available tool to estimate mortality.

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<sup>20</sup>Department of Homeland Security, Office of Immigration Statistics, *Estimates of the Unauthorized Immigrant Population Residing in the United States: January 2011 (March 2012)*.

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## DHS Identified Various Limitations and Eight Possible Ways to Improve Its Estimates of the Unlawfully Resident Population (cont.)

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- **Other limitations.** Other limitations DHS identified include the accuracy of year of entry reporting (individuals tend to report entering the country in years ending in a 0 or 5), assumptions about the nonimmigrant population (such as typical length of visit), and accuracy of state of residence of the legally resident population.
- DHS's March 2019 report identified eight possible approaches to improve its estimates, as discussed in more detail on the following slides.
- Some approaches address limitations DHS and stakeholders identified as the most significant—the ACS undercount and emigration rates—and others aim to improve DHS data systems to strengthen DHS's population estimates and improve its overall immigration reporting and analysis. In its report, DHS noted there could be challenges and costs associated with its proposed approaches, but reported it had not weighed the relative costs or benefits.
- Collectively, the approaches address some, but not all, of the limitations DHS identified to its estimates. For example, the approaches do not address the limitations related to the accuracy of the ACS year of entry estimation or to immigrant state of residence data, according to OIS officials. However, OIS officials stated that these limitations do not have a large impact on their estimates of the unlawfully residing population.

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## DHS Identified Various Limitations and Eight Possible Ways to Improve Its Estimates of the Unlawfully Resident Population (cont.)

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- DHS has ongoing work that should help implement three of the eight approaches, and has proposed coordinating with outside entities to implement four of the five approaches not underway.
  - **Collect additional information about foreign-born departures.** DHS has ongoing efforts to implement a system to collect information on departures of foreign-born individuals through land ports of entry.<sup>21</sup> OIS officials told us that once the program is completed, they plan to use data from land ports of entry to enhance their estimates.
  - **Implement the Immigration Data Integration Initiative (IDII).** OIS officials stated that DHS is making progress implementing its IDII—which involves copying and linking together data from multiple immigration data systems to a single environment—and they expect to use IDII data in their 2018 or 2019 estimates of the unlawfully residing population.
  - **Capture additional immigration data electronically.** DHS has work underway to collect more data electronically when processing immigration benefits, which OIS may be able to use to provide more descriptive data about the foreign-born population.

<sup>21</sup>Ports of entry are facilities that provide for the controlled entry into or departure from the United States.

## **DHS Identified Various Limitations and Eight Possible Ways to Improve Its Estimates of the Unlawfully Resident Population (cont.)**

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- In its March 2019 report, DHS proposed potentially coordinating with outside entities to implement five approaches. For example, to assess the size of the ACS undercount, OIS officials told us they would need to coordinate with the U.S. Census Bureau or a private entity that would conduct this research. According to a stakeholder, implementing another of the approaches—relaunching the New Immigration Survey—would also require DHS actions.
- Table 1 lists each proposed approach and information on implementation needs and status.

# Summary of DHS Proposed Approaches to Improve Its Estimates of the Unlawfully Resident Population

**Table 1: Implementation Status of the Department of Homeland Security’s (DHS) Proposed Approaches to Improve Estimates of the Unlawfully Resident Population**

DHS approach	Involves coordination with entities external to DHS	Next steps
1. Assess the size of the undercount of foreign-born populations in the U.S. Census American Community Survey (ACS)	X	DHS Office of Immigration Statistics (OIS) officials stated they are exploring the possibility of the U.S. Census Bureau further assessing the size of the ACS undercount, and plan to discuss this possibility again with the bureau in June 2019. An academic research center is also conducting research to determine ACS undercount rates among a small sample of foreign-born residents. This research is anticipated to be complete by fall 2019.
2. Develop nativity-specific mortality estimates	X	OIS officials stated that the U.S. Census Bureau is working with the National Council on Health Statistics to develop nativity-specific mortality estimates—according to country of birth. The bureau has not provided OIS with an expected completion date, but OIS officials stated that they may incorporate these updated mortality estimates into future unlawfully resident population estimates.
3. Collect additional information about foreign-born departures	X	DHS is working to complete a reliable land-based entry/exit system to collect information on immigrant departures. OIS officials told us that once the program is complete, they plan to use these data in their estimates. They also stated they met with the U.S. Census Bureau in April 2019 and learned that the bureau does not have ongoing work about foreign-born departures, and OIS officials do not have information on whether the bureau has the resources to undertake this research.
4. Implement the DHS Immigration Data Integration Initiative (IDII)	—	OIS officials stated that as of May 2019, the IDII has linked records from 19 DHS and Department of Justice data systems related to immigration enforcement and has updated the database to cover fiscal years 2013 through 2018. OIS officials expect to use IDII data in DHS’s estimates of the unlawfully residing population to be published in 2020 or 2021.

# Summary of DHS Proposed Approaches to Improve Its Estimates of the Unlawfully Resident Population

**Table 1 (cont.): Implementation Status of the Department of Homeland Security’s (DHS) Proposed Approaches to Improve Estimates of the Unlawfully Resident Population**

DHS approach	Involves coordination with entities external to DHS	Next steps
5. Assign unique identifiers to nonimmigrants	—	According to OIS officials, they have not explored the possibility of this approach with U.S. Customs and Border Protection, and are unaware of any DHS plans to undertake this effort.
6. Capture additional immigration benefits data in electronic data systems	—	OIS officials stated the U.S. Citizenship and Immigration Services (USCIS) is moving to all electronic processing of its immigration benefits forms which could potentially help provide more data to OIS about the foreign-born population, but OIS officials have not yet discussed with USCIS what data it is collecting or whether the additional data would be helpful for providing further descriptive data for OIS estimates.
7. Launch a new version of the New Immigrant Survey	X	DHS’s March 2019 report stated that if the department works with partners to launch a new version of the survey—which follows new legal permanent residents over time, OIS officials would work to incorporate the new data into the estimates. As of May 2019, OIS officials were unaware of the department undertaking any such steps. A stakeholder stated the survey has been on hold for about 10 years due to changes DHS implemented in 2007 that limited researchers’ access to data previously used for the survey. OIS officials stated they were unaware of any such limitations, but would discuss the issue with New Immigrant Survey researchers.
8. Include questions about lawful permanent resident status adjustments in the Census Survey of Income and Program Participation	X	OIS officials are not aware of any U.S. Census Bureau plans to resume asking about legal permanent resident status in future versions of the Survey of Income and Program Participation, and have not discussed this approach with U.S. Census Bureau directly.

Legend: X = applicable; — = not applicable

Source: GAO analysis of DHS information. | GAO-19-640R

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## Approach 1: Assess the Size of the Undercount of Foreign-born Populations in the U.S. Census ACS

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- **Approach description.** The U.S. Census Bureau or a private-sector research body could assess the ACS undercount for the foreign-born population.
- **Anticipated benefits and limitations addressed.** Uncertainty in the ACS undercount of the foreign-born population is one of DHS's most significant limitations when estimating the unlawfully residing population. According to OIS officials and stakeholders, assessing the size of the ACS undercount, especially by nativity and legal status, could improve DHS's estimates by providing a more accurate basis for its estimate of the total foreign-born population.

## Approach 1: Assess the Size of the Undercount of Foreign-born Populations in the U.S. Census ACS (cont.)

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- **Implementation status.** According to DHS’s March 2019 report, OIS will work with the U.S. Census Bureau to explore the possibility—subject to available resources and legal requirements—of additional research to assess the size of the undercount of foreign-born populations in the ACS. OIS officials stated they met with the bureau in April 2019 to discuss a study of the size of the ACS undercount and plan to meet with the bureau in June 2019 to discuss the possibility of conducting future studies on the size of the ACS undercount. According to OIS officials, they plan to consider updating their assumptions about the ACS undercount to utilize an undercount rate that declines the longer an immigrant is present in the United States.
- According to OIS officials and stakeholders, a researcher at an academic research center is currently conducting research to determine ACS undercount rates among a small sample of foreign-born residents. This researcher anticipates completing this work in the fall of 2019.
  - Previous studies by this researcher have indicated factors such as language, gender, employment, income, marital status, children residing in the home, interactions with the criminal justice system, and other socioeconomic status variables play a role in whether or not individuals participate in the U.S. Census and are therefore counted in the ACS.

## Approach 2: Develop Nativity-specific Mortality Estimates

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- **Approach description.** The U.S. Census Bureau or a private-sector research body could produce nativity-specific mortality estimates.
- **Anticipated benefits and limitations addressed.** According to DHS's December 2018 report, DHS estimates the legally resident foreign-born population based on administrative arrival records and controls for deaths among those known to have legally entered the United States. DHS uses mortality rates that are estimated from standard demographic tables published by the Centers for Disease Control and Prevention in 2008, but according to DHS's March 2019 report, the standard tables overestimate mortality for foreign-born populations. Overestimating immigrant mortality could lead to overestimating the unlawfully residing population because legally residing individuals may be inaccurately removed from the foreign-born population because they are presumed to be deceased. According to OIS officials and stakeholders, creating nativity-specific mortality estimates could improve DHS estimates by increasing the accuracy of mortality rates used by DHS to estimate the legally resident foreign-born population.

## Approach 2: Develop Nativity-specific Mortality Estimates (cont.)

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- **Implementation Status.** According to DHS’s March 2019 report, OIS will work with the U.S. Census Bureau to explore the possibility—subject to available resources and legal requirements—of additional research to develop nativity-specific mortality estimates. OIS officials stated that they met with the U.S. Census Bureau in April 2019 and learned that the bureau is working with the National Council on Health Statistics to develop nativity-specific mortality estimates. According to OIS officials, the bureau has not provided OIS with an estimated completion date or with information on how detailed the estimates will be. OIS officials stated that they may be able to incorporate information from these updated mortality estimates in their 2019 estimate of the unlawfully resident population, depending on when the estimates are complete.
- **Other information.** Approach 7 (discussed on slides 37 and 38), which proposes launching a new version of the New Immigrant Survey, could also strengthen DHS’s estimates of foreign-born mortality rates.

## Approach 3: Collect Additional Information about Foreign-born Departures

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- **Approach description.** The U.S. Census Bureau or a private-sector research body could collect survey data on emigration rates specific to LPRs and on the current residency status of nonimmigrants not known to have departed the United States. Additionally, DHS could finish implementing an entry/exit tracking system to include exits via land, as it only includes exits by air and sea at this time.
- **Anticipated benefits and limitations addressed.** According to OIS officials and stakeholders, uncertainty in the emigration rate of the foreign-born population is one of DHS's most significant limitations when estimating the unlawfully residing population. DHS's March 2019 report stated DHS has started collecting reliable data on departures of foreign nationals by air and sea, but does not have reliable departure data for foreign nationals who departed prior to 2015 and does not have comprehensive data on land departures. DHS reported that it must therefore rely on statistical models of foreign-born departures to build its estimate of the unlawfully residing population. OIS officials also confirmed the emigration rates they use are over 25 years old and likely outdated, but the rates come from the best data available. According to OIS officials and stakeholders, updating emigration rates could improve DHS estimates by increasing the accuracy of rates DHS uses to estimate the legally resident foreign-born population.

## Approach 3: Collect Additional Information about Foreign-born Departures (cont.)

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- **Implementation Status.** According to DHS's March 2019 report, OIS will work with the U.S. Census Bureau to explore the possibility—subject to available resources and legal requirements—of research to collect additional information about foreign-born departures. OIS officials stated that they met with the U.S. Census Bureau in April 2019 and learned that the bureau does not have ongoing work about foreign-born departures, and OIS officials do not have information on whether the bureau has the resources to undertake this research. OIS officials also told us that once the department completes a reliable land-based entry/exit system to complement the existing air- and sea-based system, OIS will incorporate departure information derived from entry/exit data in its nonimmigrant population estimates.

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## Approach 3: Collect Additional Information about Foreign-born Departures (cont.)

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- **Other information.** We have previously reported on the reliability of DHS departure data and the department's efforts to implement an entry/exit system.
  - In February 2017, we found that U.S. Customs and Border Protection (CBP) had made progress in testing land-based exit tracking capabilities, but various longstanding planning, infrastructure, and staffing challenges continue to affect its efforts to develop and implement an exit system. We also reported that, because of unreliable collection of departure data at land ports of entry, DHS did not report information required by law on foreign visitors who entered the country through land ports of entry and remained in the country beyond their authorized period of admission.<sup>22</sup>
  - In February 2019, we reported that DHS is continuing its efforts to collect data at land ports of entry through pilot projects. For example, beginning in December 2017, CBP and its Mexican counterpart agency began collecting data on travelers departing the United States at the San Ysidro, California land port of entry using radio frequency identification, which is included on many forms of documentation typically carried by Mexican nationals, according to CBP officials.<sup>23</sup>

<sup>22</sup>[GAO-17-170](#).

<sup>23</sup>[GAO-19-298R](#).

## Approach 4: Implement the DHS Immigration Data Integration Initiative

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- **Approach description.** DHS proposes implementing its IDII, which involves copying data from multiple immigration data systems into a single environment, linking records at the person level, and using linked records to build a single, comprehensive, and integrated dataset.
- **Anticipated benefits and limitations addressed.** According to DHS's March 2019 report, DHS maintains four dozen separate immigration data systems, most of which are organized by events, rather than by individuals. As a result, individuals applying for multiple benefits, admitted multiple times, or adjusting their immigration status may have records in several different data systems, and it is often difficult to match their records across systems. OIS officials stated this may cause certain groups to be under- or over-estimated in DHS's estimates of the unlawfully residing population. DHS reported that it expects to use IDII data to match each admissions record to the immigrant's current status more accurately and to determine whether the immigrant has departed the country, strengthening and simplifying its population estimates.

## Approach 4: Implement the DHS Immigration Data Integration Initiative (cont.)

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- **Implementation status.** According to DHS's March 2019 report, as of December 2018, the IDII has linked records from 19 DHS and Department of Justice data systems related to immigration enforcement. However, the report stated the IDII does not yet include a comprehensive set of immigration benefits data and will likely not have this data until 2020. OIS officials stated that, as of May 2019, the IDII data has been expanded to cover fiscal years 2013 through 2018. This expanded time frame has allowed the system to house data on 14.1 million individuals who have been apprehended or arrested by law enforcement and about 65 million records of enforcement actions or immigration benefits. According to OIS officials, they expect to use IDII data in DHS's 2018 or 2019 estimates of the unlawfully residing population. Officials emphasized that this timeline requires a strong department commitment, as the effort will be time-consuming.
- **Other information.** DHS's fiscal year 2019 congressional budget justification included a requested increase of \$1.2 million for the IDII project, as well as four full-time equivalent staff for the management and administration of a new program office. The congressional budget justification stated that these staff will implement enterprise-level immigration data standards, establish person-level data linkages, manage the development and implementation of the technical aspects of the IDII system solution, and begin providing integrated immigration data as a service to DHS and inter-agency stakeholders. The Explanatory Statement accompanying the Consolidated Appropriations Act, 2019, provided \$3.3 million (an increase of \$2.1 million above DHS's request) for the IDII.

## Approach 5: Assign Unique Identifiers to Nonimmigrants

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- **Approach description.** DHS could assign unique, person-specific identifiers, such as alien numbers, to nonimmigrant visitors in its data systems.<sup>24</sup>
- **Anticipated benefits and limitations addressed.** According to OIS officials, assigning unique identifiers would allow DHS to link nonimmigrant and LPR records more reliably. This linkage would permit DHS to more easily track adjustments to immigration status, thereby allowing OIS to more accurately determine which individuals should be included in the nonimmigrant versus LPR populations from year to year. Additionally, it would allow DHS to identify individuals who were in nonimmigrant status in one year but received lawful resident status in another year, thereby not double counting this individual in either category, according to OIS officials. According to DHS's March 2019 report, a unique identifier would also strengthen the IDII comprehensive integrated data set described in approach 4.

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<sup>24</sup>An alien number, or alien registration number, is a unique number assigned to a noncitizen's administrative file for tracking purposes.

## Approach 5: Assign Unique Identifiers to Nonimmigrants (cont.)

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- **Implementation status.** According to OIS officials, implementing this approach would require CBP and the U.S. Citizenship and Immigration Services (USCIS) to take action. For example, assigning alien numbers to nonimmigrants would necessitate a change to CBP processing of nonimmigrants who enter the United States. In particular, CBP officers would need to assign alien numbers to nonimmigrants in data systems when they admit them into the country. According to OIS officials, they have not specifically explored the possibility of this approach with CBP, and are unaware of any DHS plans to undertake this effort.
- **Other information.** According to OIS officials, DHS has not historically assigned alien numbers to nonimmigrants because the numbers were originally intended to track immigration benefits provided to lawful resident immigrants. More recently, agencies responsible for enforcement, such as CBP and U.S. Immigration and Customs Enforcement, have begun assigning alien numbers to unlawfully present nonimmigrants against whom they take enforcement action.

## Approach 6: Capture Additional Immigration Benefits Data in Electronic Data Systems

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- **Approach description.** DHS could capture most or all data elements on immigration benefits forms in its electronic systems.
- **Anticipated benefits and limitations addressed.** USCIS collects certain data elements on paper immigration benefits application forms but not all of the data from the paper forms are currently available electronically. According to OIS officials, capturing additional immigration benefits data in electronic systems could add descriptive data to DHS's legally resident population estimates, but would not affect total estimates of, or descriptive information available about, the unlawfully resident population. USCIS has ongoing efforts to move from paper-based to electronic processing of immigration benefits applications through its Transformation Program. OIS officials stated that they have not discussed with USCIS officials the potential benefits or limitations of adding new fields to USCIS electronic data systems through the Transformation Program and whether they would be useful for enhancing OIS unlawfully resident population estimates.

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## Approach 6: Capture Additional Immigration Benefits Data in Electronic Data Systems (cont.)

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- **Implementation status.** As of May 2019, OIS officials stated that they have not discussed this approach with USCIS.
- **Other information.** In March 2017, we reported that since USCIS began its Transformation Program in 2006, the program has continually faced management and development challenges, limiting its progress and ability to achieve its goals.<sup>25</sup> For example, we reported that an April 2015 baseline of the program indicated an increase of approximately \$1 billion and a delay of more than 4 years from the program's initial July 2011 baseline. Since we reported in March 2017, the program reported additional implementation delays such as a 4 month slip from the program's July 2018 re-baseline.

<sup>25</sup>[GAO-17-486T](#).

## Approach 7: Launch a new version of the New Immigrant Survey

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- **Approach description.** Federal agencies and private-sector partners could work with DHS to launch a new version of the New Immigrant Survey. The New Immigrant Survey was an academic panel study that followed 1996 and 2003 cohorts of new LPRs and asked questions relating to migration within and outside of the United States, family composition (children in the household, including those who may be unlawfully residing), health measures, and previous unlawful status. The survey used government data on LPRs to select and follow the cohorts.
- **Anticipated benefits and limitations addressed.** DHS has identified uncertainty regarding estimates of foreign-born departures and mortality as limitations to its estimate of the unlawfully resident population. According to DHS's March 2019 report, a new survey could be used to strengthen DHS's estimates of foreign-born departures and mortality by asking questions on emigration and health measures.

## Approach 7: Launch a new version of the New Immigrant Survey (cont.)

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- **Implementation status.** DHS's March 2019 report stated that if the department works with partners to launch a new version of the survey, OIS officials would work to incorporate the new data into the estimates. As of May 2019, OIS officials were unaware of the department undertaking any such steps. According to a stakeholder who has experience with New Immigrant Survey data, the New Immigrant Survey has been on hold for about 10 years. This stakeholder stated that there have been no follow ups to the original 1996 and 2003 cohorts and no new cohorts have been launched due to changes DHS implemented in 2007 that limited researchers access to data previously used for the Survey. OIS officials stated that they were unaware of any such limitations, but would discuss the issue with New Immigrant Survey researchers.
- **Other information.** According to a stakeholder who has experience with New Immigrant Survey data, information gleaned from a new survey could enhance estimates of the unlawfully resident population and what is known about the population. For example, this stakeholder stated that the New Immigrant Survey could provide researchers with information about previous unlawful status among new LPRs, family or household members who may be unlawfully residing in the country, emigration, and the loss of LPR status and denaturalization.

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## Approach 8: Include Questions about Adjustments to Lawful Permanent Resident Status in the Census Survey of Income and Program Participation

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- **Approach description.** The U.S. Census Bureau could include questions about adjustments to LPR status in its Census Survey of Income Program Participation. DHS could then use data collected through the survey to produce more detailed demographic estimates of the unlawfully resident population.
- **Anticipated benefits and limitations addressed.** According to OIS officials, this approach could enable OIS to provide more detailed demographic data to describe the unlawfully resident population, but would not affect the total estimate of this population. The 2008 version of the Survey of Income Program Participation included questions about whether foreign-born residents had arrived in the United States with an immigrant visa and whether they had adjusted to LPR status within the United States. Researchers previously used responses to these questions to help produce more detailed demographic estimates of the unlawfully resident population. However, the 2014 version of the Survey of Income Program Participation excluded questions about adjustments to LPR status within the United States. According to OIS officials, if the U.S. Census Bureau were to resume including questions about adjustments to LPR status in the survey, DHS could use the information to enhance the scope of information it produces about the unlawfully resident population. For instance, OIS officials stated they could potentially provide information on income, occupation, and insurance rates of the unlawfully resident population.

## Approach 8: Include Questions about Adjustments to Lawful Permanent Resident Status in the Census Survey of Income and Program Participation (cont.)

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- **Implementation status.** OIS officials are not aware of any U.S. Census Bureau plans to resume asking about LPR status in future versions of the Survey of Income Program Participation, although they have not discussed this approach with U.S. Census Bureau directly.
- **Other information.** OIS officials were unsure why the adjustment of status question was removed from the Survey of Income Program Participation, but suggested that it may have been to save costs, as information about adjustments to status are not critical to include in the survey for U.S. Census Bureau's purposes.



# Appendix I: Data Sources Department of Homeland Security used to estimate the unlawfully resident population in the United States

**Table 2: Data Sources the Department of Homeland Security (DHS) Used to Estimate the Population Residing Unlawfully in the United States**

Estimation element	Data source	Definitions and adjustments
<b>Foreign-born population average for 2014 who entered 1980-2014</b>	U.S. Census Bureau 2014 American Community Survey Public Use Microdata Sample	Estimated undercount percentages: nonimmigrants (10 percent); LPRs, refugees, and asylees (2.5 percent); and unlawfully resident population (10 percent)
<b>Persons who obtained Lawful Permanent Resident (LPR) status</b>	Administrative records from U.S. Citizenship and Immigration Services (USCIS) application case tracking systems	LPRs consist of two groups: new arrivals and those who have adjusted status
<b>Persons admitted as refugees</b>	Department of State Worldwide Refugee Admissions Processing System	
<b>Persons granted asylum</b>	Affirmative – USCIS Refugee, Asylum, and Parole System Defensive – Department of Justice Executive Office for Immigration Review CASE system	Refugee and asylee flow was estimated based on the average time spent in the status before adjustment to LPR status- 2.2 years for refugees and 4.1 years for asylees adjusting in 2014
<b>Nonimmigrants with classes of admission associated with residence not required to leave by January 1, 2015</b>	U.S. Customs and Border Protection TECS I-94 arrival-departure records	Estimate days of presence and divide by 365. Restricted to classes of admission such as students and temporary workers.
<b>Mortality of legally resident flow 1980-2014</b>	Mortality rates by age and sex from demographic tables	Lawfully resident foreign-born population adjusted for mortality
<b>Emigration of legally resident flow 1980-2014</b>	1980 and 1990 Census data	Lawfully resident foreign-born population adjusted for emigration

Source: GAO analysis of DHS data sources. | GAO-19-640R



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