



Population Estimates

ILLEGAL ALIEN POPULATION RESIDING IN THE UNITED STATES: JANUARY 2015

DECEMBER 2018



**Homeland
Security**

Office of Immigration Statistics
OFFICE OF STRATEGY, POLICY & PLANS

Estimates of the Illegal Alien Population Residing in the United States: January 2015

BRYAN BAKER

This report provides estimates of the size of the illegal alien¹ population residing in the United States as of January 2015 by period of entry, region and country of origin, state of residence, age, and sex. The estimates were derived using the residual methodology employed for previous estimates of this population.² The illegal alien population is the remainder (or residual) after the legally resident foreign-born population—naturalized citizens, lawful permanent residents (LPRs), asylees, refugees, and nonimmigrants—is subtracted from the total foreign-born population. Data to estimate the legally resident foreign-born population were obtained primarily from the Department of Homeland Security (DHS), and estimates of the total foreign-born population were derived from the American Community Survey (ACS) of the U.S. Census Bureau.

In summary, DHS estimates that 12.0 million illegal aliens were living in the United States in January 2015, compared to 11.5 million in January 2014 and 11.6 million in January 2010.³ On average, the population grew by 70,000 per year from 2010 to 2015, compared to 470,000 per year during the high-growth years leading up to the Great Recession (2000–2007). Of the total illegal alien population in 2015, nearly 80 percent had resided within the United States for more than 10 years and six percent entered during the previous five years (2010 to 2014). About 55 percent of illegal aliens in 2015 were from Mexico.

DEFINITIONS

Legal Residents

The legally resident immigrant population as defined for these estimates includes persons granted lawful permanent residence, persons granted asylum, persons admitted as refugees, and persons admitted as nonimmigrants under classes of admission associated with residence (e.g., students and temporary workers, as opposed to tourists) and with authorized periods of admission ending after January 1, 2015.

Illegal Alien Residents

The resident illegal alien population is defined as all foreign-born non-citizens who are not legal residents (see above). Most illegal aliens either entered the United States without

inspection or were admitted temporarily and remained past the date they were required to depart. Persons who are beneficiaries of Temporary Protected Status (TPS), Deferred Action for Childhood Arrivals (DACA) or other forms of prosecutorial discretion, or who are residing in the United States while awaiting removal proceedings in immigration court are included among the illegal alien population estimates. Illegal aliens applying for adjustment to LPR status under the Immigration and Nationality Act (INA) are considered to be part of the resident illegal alien population until they have been granted lawful permanent residence.

METHODOLOGY OVERVIEW AND DATA

Two populations are estimated in order to derive the illegal alien population estimates: 1) the total foreign-born population living in the United States on January 1, 2015, and 2) the legally resident foreign-born population on the same date. The illegal alien population estimate is the residual when (2) is subtracted from (1).⁴ Foreign-born residents who entered the United States prior to 1980 are assumed to be legally resident since most would have become eligible to adjust to LPR status.⁵ Therefore, the starting point for the estimates was January 1, 1980. The steps involved in estimating the components of each population are shown in APPENDIX 1. Data on the total foreign-born population that entered during 1980–2014 by country of birth, state of residence, year of entry, age, and sex were obtained from the 2014 ACS. The ACS is a nationwide sample survey that collects information from U.S. households on social, demographic, and economic characteristics, including country of birth and year of entry of the foreign-born population. The ACS consists of non-overlapping samples from which information is collected monthly over the course of a year. The ACS was selected for the estimates because of its large sample size: about three million households per year compared to about 100,000 annually for the Current Population Survey, the primary alternative source of national data on the foreign-born population.

Data on persons who obtained LPR status by country of birth, state of residence, age, sex, category of admission, and year of entry were obtained from DHS administrative records maintained in an application case tracking system of U.S.

¹ The Department of Homeland Security refers to foreign-born non-citizens unlawfully present in the United States as “illegal aliens.” Previous versions of this report used the term “unauthorized immigrants” to refer to this population.

² Previous editions of this report are available at: <https://www.dhs.gov/immigration-statistics>.

³ The estimates for Jan. 2013 and Jan. 2014 have been revised; see Appendix 2 for details and updated estimates.

⁴ Detailed information on the estimation of (1), the total foreign-born population, and (2), the lawfully resident foreign-born population, is available in Appendix 1.

⁵ Under Section 249 of the INA, the registry provision, qualified persons who have resided continuously in the United States since prior to January 1, 1972, may apply for LPR status. Additionally, qualified persons who had resided continuously in the United States since prior to January 1, 1982 as illegal aliens were made eligible to adjust to LPR status under the Immigration Reform and Control Act (IRCA) of 1986, Pub. L. No. 99-603, 100 Stat. 3359 (1986).

Citizenship and Immigration Services (USCIS). Data on refugees arriving in the United States by country of origin were obtained from the Department of State. Data on persons granted asylum by country of origin were obtained from USCIS for those granted asylum affirmatively and from the Executive Office for Immigration Review of the Department of Justice for those in removal proceedings granted asylum defensively. Data on nonimmigrant admissions by country of citizenship, state of residence, age, sex, and class of admission were obtained from I-94 arrival-departure records in the TECS database maintained by U.S. Customs and Border Protection. Estimates of the illegal alien population were generated for the ten leading countries of birth and states of residence and were disaggregated by age and sex. The Cuban-born population living in the United States was excluded from the estimates since, under U.S. immigration law and policy, most Cubans who were admitted or paroled into the United States were eligible one year later to apply to adjust to LPR status.⁶

RESULTS

An estimated 12.0 million illegal aliens were living in the United States on January 1, 2015, compared to an estimated 11.6 million on January 1, 2010.

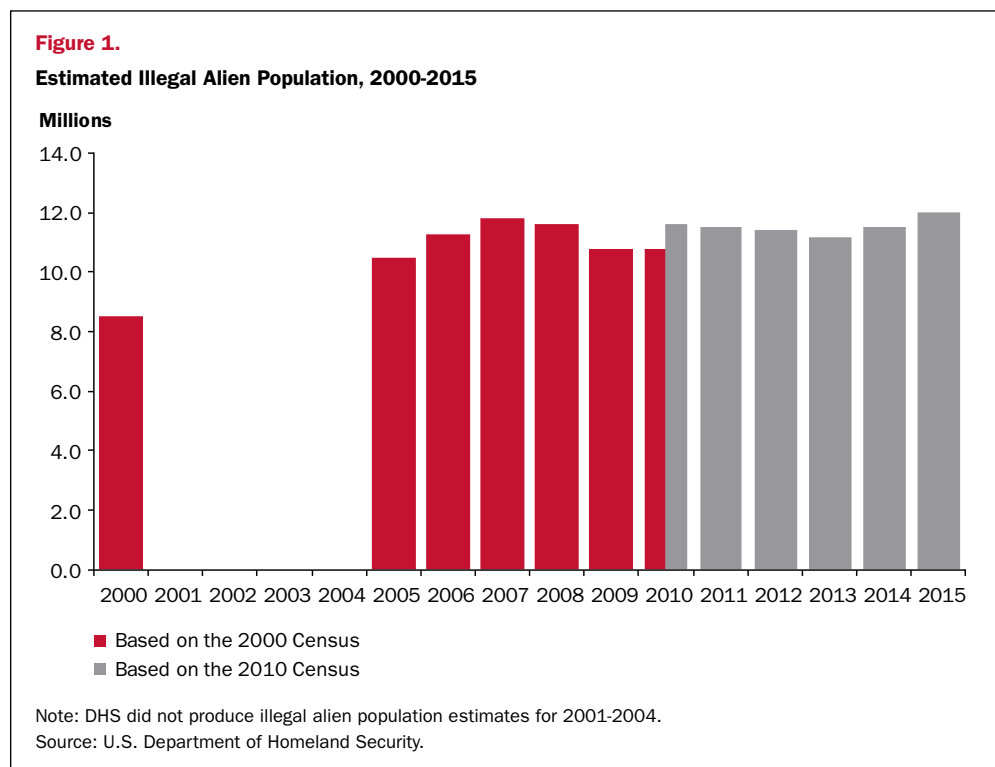
Analysis of changes in the size of the illegal alien population over time is problematic, particularly for year-to-year comparisons and comparisons across decades. For example,

the methodology includes modeling assumptions (e.g., emigration rates over time) that, while believed to be reasonable across long periods of time, do not account for changes in the timing of behavior related to special circumstances, such as the influence of temporary economic, environmental, or political conditions. Comparing across decades is also problematic because DHS estimates before and after 2010 are based on different decennial Censuses; as Figure 1 illustrates, calculating the 2010 population with otherwise identical data and methodologies yields substantially different results depending on whether the estimates build off of the 2000 or 2010 Census.⁷

Nonetheless, Figure 1 reveals three broad trends in the illegal alien population over time. First, the population grew rapidly in the years leading up to the January 2007 peak, increasing at a rate of about 470,000 people per year, and then fell by about 1,000,000 people during and after the 2007-2009 recession. Second, the population largely stabilized between 2009 and 2013. Third, the population appears to have increased by about 800,000 people between 2013 and 2015, a result that may have been driven in part by rising unlawful arrivals at the southwest border in 2014 (OIS, 2017). Even with this increase, however, in view of the decennial Census recalibration (see the two estimates for 2010 in Figure 1), the 2015 population was likely substantially smaller than the 2007 peak, despite the larger numerical estimate.

⁶ Cuban Refugee Adjustment Act of 1966, Pub. L. No. 89-732, 80 Stat. 1161 (1966) (as amended); 8 U.S.C. § 1255 (1994 & Supp. II 1966).

⁷ See U.S. Census Bureau, 2011, for information on the effect of the 2010 decennial Census on the ACS series.



Period of Entry

Of the 12.0 million illegal aliens in 2015, nearly 80 percent had been in the United States for longer than 10 years, whereas only six percent had entered within the last five years (2010-2014) (see Table 1 and Figure 2). During the peak period in 2007, less than 50 percent of the population had been in the United States for longer than 10 years, and more than 20 percent had entered within the most recent five-year period (2002-2006). This pattern suggests a declining rate of growth of new illegal immigration and/or an increasing share of new illegal aliens being repatriated or otherwise returning home.

Estimates by Region and Country of Birth

The number of illegal aliens from North America (8.9 million, or 75 percent of the total) remained largely unchanged from 2010, although the number from Mexico fell by about 50,000 people per year during that time (see Figure 3). The reduction in the population of illegal aliens from Mexico was almost fully offset by increases from El Salvador, Guatemala, and Honduras. Also since 2010, the number of illegal aliens from

Asia increased at an average rate of about 85,000 per year, increasing from 1.3 million in 2010 to 1.8 million in 2015; this growth was driven primarily by an increase of about 40,000 people per year from India.

Mexico continued to account for the largest share of the U.S. illegal alien population, though the number of illegal aliens from Mexico and Mexico's share of the total both declined since 2010 (see Table 2). There were 6.6 million illegal aliens from Mexico in 2015, representing 55 percent of the illegal alien population, compared to 6.8 million representing about 60 percent in 2010. The next leading source countries were El Salvador (750,000), Guatemala (620,000), India (470,000), Honduras (440,000), and the Philippines (370,000). The ten leading countries of origin accounted for 84 percent of the illegal alien population in 2015. Among the top ten countries, the largest percentage increases since 2010 were for India (about 75 percent), the Philippines (about 25 percent), and Guatemala (nearly 20 percent).⁸

Estimates by State of Residence

California remained the leading state of residence of the illegal alien population in 2015, with 2.9 million, nearly 25 percent of the total number (see Table 3). The next leading state was Texas with 1.9 million illegal residents, followed by Florida (810,000), New York (590,000), and Illinois (450,000). The ten leading states represented more than 70 percent of the illegal alien population in 2015.

Table 1.

Illegal Alien Population Size by Period of Entry: 2015, 2010, and 2007

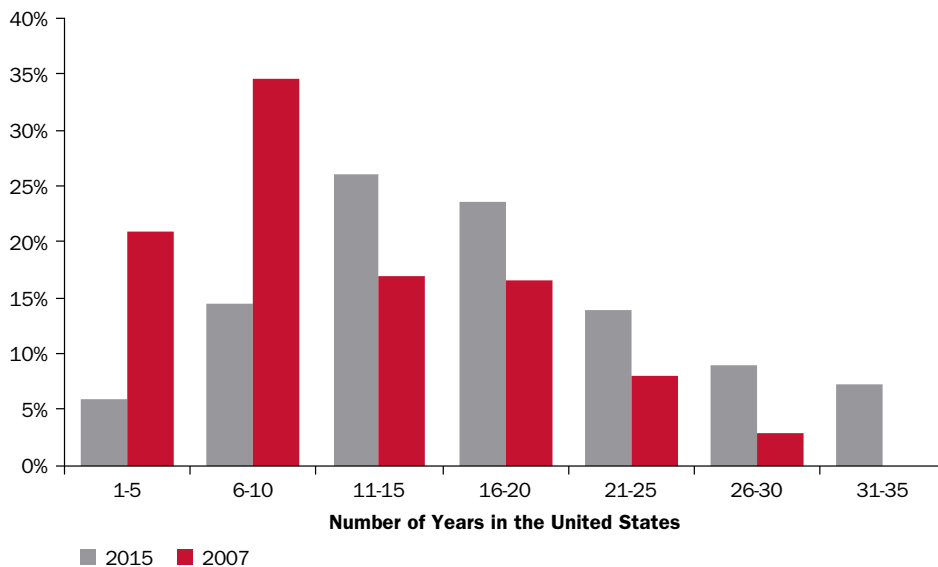
Period of entry	2015		2010	2007
	Number	Percent	Percent	Percent
All years (1980+)	11,960,000	100	100	100
Previous 5 years	710,000	6	12	21
6-10 years ago	1,720,000	14	29	35
11-20 years ago	5,920,000	50	42	34
More than 20 years ago	3,600,000	30	17	11

Note: Detail may not sum to totals because of rounding.
Source: U.S. Department of Homeland Security.

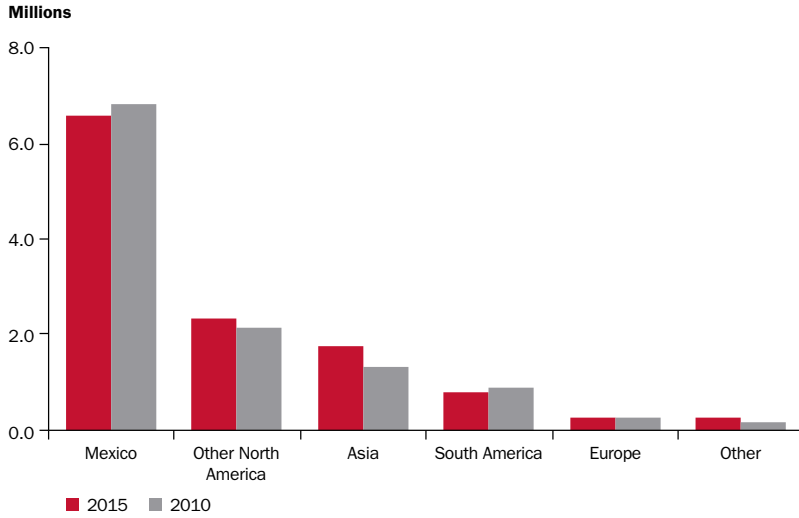
⁸ Percentages and percent change were calculated prior to rounding. The estimated increases for India and China for 2014 to 2015 may overstate actual growth in these populations (see Appendix 2). India and China both exhibited rapid increases in nonimmigrant admissions during this period in an otherwise stable environment (e.g., no large increase in nonimmigrants overstaying their authorized periods of admission); coupled with changing trends in nonimmigrant visit lengths and/or an increasing number of tourists being reported as "resident," these developments may have caused inflation in the estimated illegal alien populations for these two countries (see the Limitations section).

Figure 2.

Illegal Alien Population by Years in the United States: 2015 and 2007



Source: U.S. Department of Homeland Security.

Figure 3.**Illegal Alien Population by Region and Country of Birth: 2015 and 2010**

Source: U.S. Department of Homeland Security.

Table 2.**Illegal Alien Population by Country of Birth: 2015 and 2010**

Country of Birth	2015		2010		Percent Increase
	Number	Percent of Total	Number	Percent of Total	
All countries	11,960,000	100	11,590,000	100	3
Mexico	6,580,000	55	6,830,000	59	-4
El Salvador	750,000	6	670,000	6	13
Guatemala	620,000	5	520,000	4	19
India	470,000	4	270,000	2	76
Honduras	440,000	4	380,000	3	14
Philippines	370,000	3	290,000	2	27
China	320,000	3	300,000	3	6
Korea	230,000	2	220,000	2	9
Vietnam	170,000	1	190,000	2	-11
Ecuador	150,000	1	210,000	2	-29
Other countries	1,870,000	16	1,720,000	15	9

Note: Detail may not sum to totals because of rounding.

Source: U.S. Department of Homeland Security.

Table 3.**Illegal Alien Population by State of Residence: 2015 and 2010**

Country of Birth	Estimated population size in January				Percent Increase
	2015		2010		
	Number	Percent of Total	Number	Percent of Total	
All countries	11,960,000	100	11,590,000	100	3
California	2,880,000	24	2,910,000	25	-1
Texas	1,940,000	16	1,780,000	15	9
Florida	810,000	7	730,000	6	10
New York	590,000	5	690,000	6	-15
Illinois	450,000	4	550,000	5	-18
New Jersey	440,000	4	440,000	4	-1
Georgia	390,000	3	430,000	4	-9
North Carolina	390,000	3	390,000	3	-1
Arizona	380,000	3	350,000	3	6
Virginia	310,000	3	220,000	2	43
Other states	310,000	3	220,000	2	10

Note: Detail may not sum to totals because of rounding.

Source: U.S. Department of Homeland Security.

The largest growth rate among the top 10 states was for Virginia, which experienced an increase of 110,000, or nearly 45 percent, from 2010 to 2015. The illegal alien population also grew in Florida (10 percent), Texas (9 percent), and Arizona (6 percent), but declined in Illinois (18 percent) and New York (15 percent).

Estimates by Age and Sex

In 2015, 60 percent of illegal aliens were ages 25 to 44 years and 53 percent were male (see Figure 4 and Table 4). Males accounted for 57 percent of the illegal alien population in the 18 to 34 age group in 2015, while females accounted for 55 percent of the 45 and older age groups.

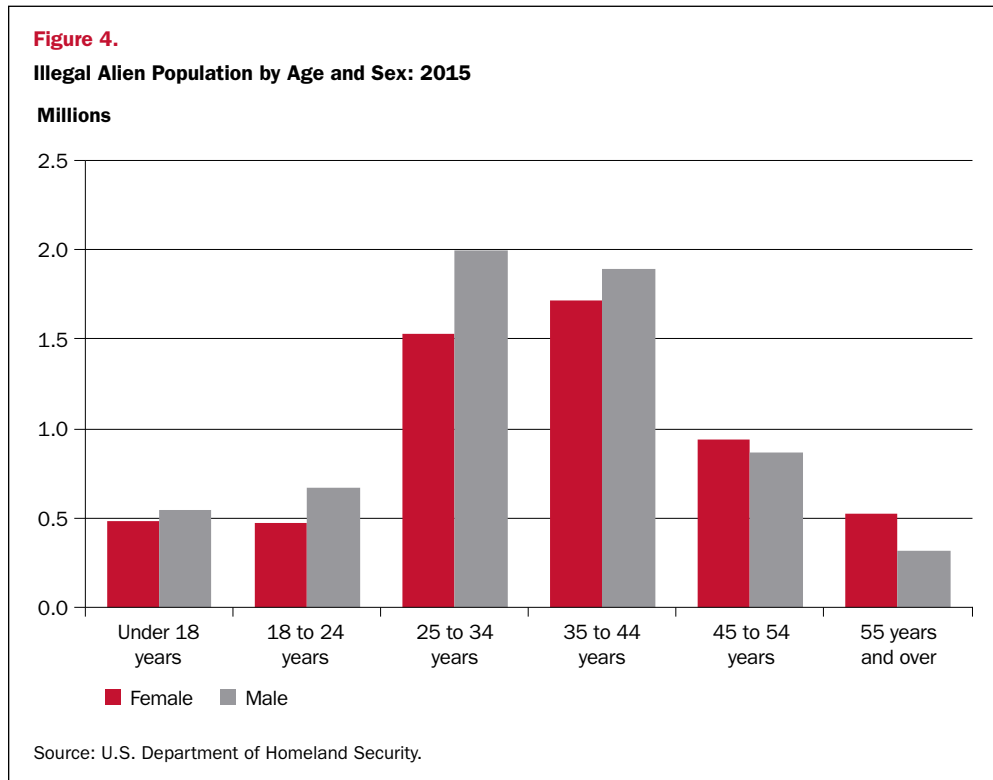


Table 4.
Illegal Alien Population by Age and Sex: 2015

Age	Total		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
All ages	11,960,000	100	6,290,000	100	5,670,000	100
Under 18 years	1,040,000	9	550,000	9	490,000	9
18 to 24 years	1,140,000	10	670,000	11	470,000	8
25 to 34 years	3,530,000	29	1,990,000	32	1,530,000	27
35 to 44 years	3,610,000	30	1,900,000	30	1,710,000	30
45 to 54 years	1,800,000	15	870,000	14	940,000	17
55 years and over	840,000	7	320,000	5	530,000	9

Note: Detail may not sum to totals because of rounding.
Source: U.S. Department of Homeland Security.

Estimates from Other Sources

The Pew Research Center and the Center for Migration Studies (CMS) also use the residual method to estimate the illegal alien population (Passel and Cohn, 2016; Warren, 2016). The three sets of estimates are roughly similar, with 2015 estimates falling in a range from 11 to 12 million, but differences in their assumptions and specific methodologies produce somewhat different numbers and trends. Some of these methodological differences are described below:

- **Survey undercount.** The residual model estimates the total foreign-born population based on U.S. Census data, but the Census is believed to undercount the foreign-born population—and particularly the illegal alien population—at higher rates than the native-born population. DHS, Pew, and CMS each make somewhat different assumptions about the exact degree of the undercount and how it may differ with time spent in the United States and for different subgroups.
- **Methods for estimating the nonimmigrant, refugee, and asylee populations.** DHS estimates nonimmigrants, refugees, and asylees based on previous admissions data, controlling for estimated deaths and outflows. Pew and CMS estimate these populations based on their expected characteristics in Census data. These methodological differences affect the estimated size of the legally present population and therefore have an influence on the estimated size of the illegal alien population.
- **Emigration modeling.** The residual method uses estimates of the lawful permanent resident population which are based on previous immigration inflows, adjusted for mortality and return migration (i.e., lawful immigrants who depart the United States). Mortality rates can be estimated based on standard demographic tables, but DHS, Pew, and CMS each make their own assumptions about emigration rates.
- **Techniques used to control for entry-year heaping in the ACS.** Census data on the foreign-born population indicate an unexpectedly large number of immigrants who report entering the United States in 1980 relative to surrounding years (“heaping” on 1980). Illegal aliens who entered prior to 1980 are assumed to have legalized through the Immigration Reform and Control Act, so how analysts control for this heaping effect has an impact on the resulting population estimate.

- **Base populations used in the residual method.** The residual method used by DHS starts with all foreign-born persons who entered in 1980 or later and subtracts off all lawfully resident foreign-born persons who entered in the same period. Alternatively, one could start with foreign-born noncitizens and subtract off all lawfully resident foreign-born noncitizens, or use a different year of entry cutoff (also before 1982) instead of 1980. These different choices of starting populations can lead to different estimates due to over-reporting of citizenship in the ACS, year of entry misreporting due to recall bias or digit preference, or other factors.⁹

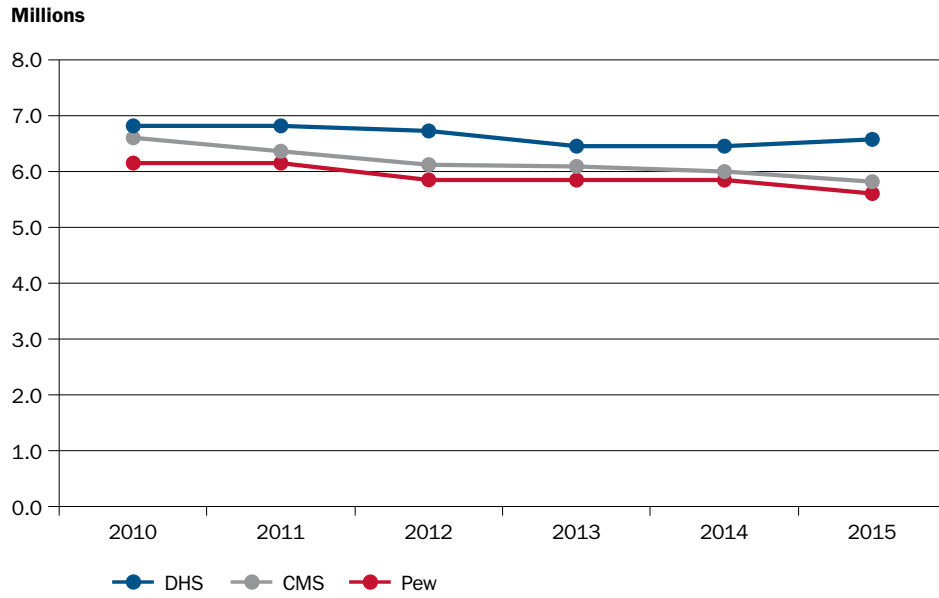
These and other modeling differences result in differences among the three organizations’ overall estimates. In particular, Pew estimated 11.0 million illegal aliens residing in the United States as of March 2015, down slightly from 11.1 million in 2014. CMS estimated 11.0 in 2015, up slightly from 10.9 million in 2014.

Figures 5 and 6 offer additional insight into differences among the three organizations’ estimates. Figure 5 depicts estimated numbers of illegal aliens from Mexico, and Figure 6 depicts estimated non-Mexicans. As the figures illustrate, all three organizations estimate the population of illegal aliens from Mexico within a range of about 6 to 7 million persons in 2010, and all three show declines from 2010 to 2015. The CMS estimate was more similar to the DHS estimate in 2010 and to the Pew estimate in 2015 and shows a larger decline over this time period. With respect to non-Mexicans, the CMS and Pew estimates were roughly flat from 2010 through 2014 (with the exception of a brief spike in the Pew estimate in 2012) before increasing in 2015; the DHS estimate was flat from 2010 through 2013 and increased substantially in 2014 and 2015, coinciding with the surge in illegal immigration from the Northern Triangle of Central America. Despite these differences, all three estimates fell within a range of about 5 to 6 million people.

⁹ Recall bias and digit preference refer to the tendency of survey respondents to use numbers that end in “0” or “5” when providing information about an event that happened some number of years before.

Figure 5.

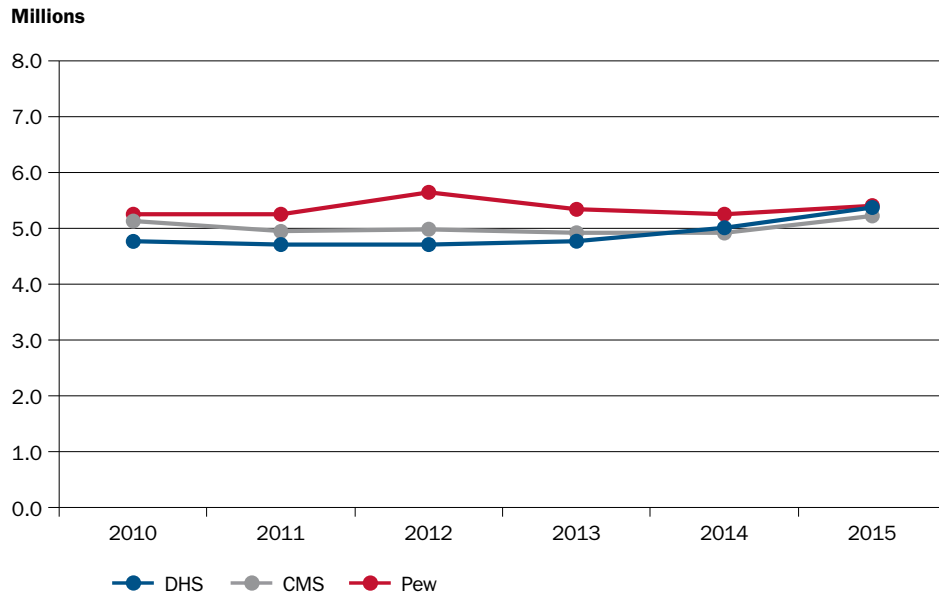
Mexican Illegal Alien Population by Source: FY 2010-2015



Sources: U.S. Department of Homeland Security; Pew Research Center; Center for Migration Studies.

Figure 6.

Non-Mexican Illegal Alien Population by Source: FY 2010-2015



Sources: U.S. Department of Homeland Security; Pew Research Center; Center for Migration Studies.

Appendix 1

COMPONENT ESTIMATION DETAILS AND LIMITATIONS

Components of the Illegal Alien Population Estimation Process

The illegal alien population estimate is the residual when the estimated legally resident population is subtracted from the estimated total foreign-born population.

1) Foreign-born population

a. Foreign-born population average for 2014, entered 1980–2014

The initial estimate of the total foreign-born population that entered in 1980 to 2014 was obtained from the 2014 ACS Public Use Microdata Sample (PUMS), along with data on the distribution of the foreign born by country of origin, state of residence, year of entry, age, and sex. The overall PUMS estimate for the total foreign-born population entering in the post-1979 period was reduced to remove PUMS estimates of the post-1979 Cuban-born population. Further, a three-year moving average was applied to PUMS data for year of entry to reduce heaping effects.

Prior to the Jan. 2013 edition of this report, the U.S. Census Bureau's American Fact Finder (AFF) provided the total foreign-born population size. The Jan. 2013 and Jan. 2014 estimates are updated in Appendix 2 to correct for an error introduced during the transition from AFF to PUMS.

b. Shift in reference date to January 1, 2015

The 2014 ACS estimates of the foreign-born population are benchmarked to the middle of 2014 and therefore do not fully count the part of the population that arrived in 2014. For example, the 2014 ACS estimated about 75 percent more foreign-born persons who entered the United States in 2013 than were estimated in the 2013 ACS. To fully estimate the population who entered in 2014, the 2014 ACS estimates of 2014 entrants were adjusted upward according to the historical average of increases observed in consecutive ACS vintages. Specifically, the 2014 ACS estimates of 2014 entrants were multiplied by 1.74, the average of: (1) the ratio of 2013 entrants in the 2014 vs. 2013 ACS vintages; (2) the ratio of 2012 entrants in the 2013 vs. 2012 ACS vintages; and (3) the ratio of 2011 entrants in the 2012 vs. 2011 ACS vintages. In effect, this shifts the reference date from mid-year 2014 to January 1, 2015.

c. Undercount of nonimmigrants in the ACS

The Census is believed to under-count nonimmigrants at higher rates than the native-born population. DHS assumes that the undercount rate for nonimmigrants was 10 percent—the same rate used in DHS estimates for 2000 and 2005–2014 (U.S. Department of Homeland Security, 2003; Baker, 2017a).

d. Undercount of LPRs, refugees, and asylees in the ACS

DHS assumes the undercount rate for LPRs, refugees, and asylees in the ACS was 2.5 percent—the same rate used in DHS estimates for 2000 and 2005–2014.

e. Undercount of illegal aliens in the ACS

DHS assumes the undercount rate for illegal aliens in the ACS was 10 percent—the same rate used in DHS estimates for 2000 and 2005–2014.

f. Estimated foreign-born population, January 1, 2015

The sum of 1a. through 1e. (above) is the estimated foreign-born population on January 1, 2015, that entered the United States during the 1980–2014 period.

2) Legally Resident Population

g. LPR, refugee, and asylee flow, entered 1980–2014

The 1980–2013 flow was calculated separately for LPRs, refugees, and asylees using DHS administrative data.¹⁰ LPRs consist of two groups: new arrivals and those who have adjusted status. New arrivals include all persons with immigrant visas issued by the Department of State who were admitted at a U.S. port of entry. For new arrival LPRs, the date of entry into the United States is the same as the date of approval for LPR status. For LPRs adjusting status, year of entry was assumed to be the year of last entry between 1980 and 2014 prior to adjustment.

Refugees and asylees, as defined in the legally resident flow, had not adjusted to LPR status as of January 1, 2015. The 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. The refugee and asylee portion of the legally resident flow therefore included refugees who arrived in the United States during the 2.2 years prior to 2015 and persons granted asylum during the 4.1 years preceding 2015.

¹⁰ LPRs include persons who obtained LPR status and subsequently became citizens through naturalization.

h. Mortality of legally resident flow 1980–2014

Data are not collected on the mortality of legally resident immigrants. The population was survived forward in time (from the year in which LPR status was obtained to 2015) using mortality rates by age and sex from 1999–2001 (Arias et al., 2008).

i. Emigration of legally resident flow 1980–2014

Emigration is a major component of immigrant population change. In the absence of data that directly measure emigration from the United States, researchers have developed indirect estimates based largely on Census data. For this report, annual emigration rates were calculated from estimates of emigration of the foreign-born population based on 1980 and 1990 Census data (Ahmed and Robinson, 1994). Refugees and asylees, with little likelihood of returning to their country of origin, were assumed not to emigrate. The effective rate of emigration for legally resident immigrants granted LPR status in 1994–1995 was about 19 percent during the twenty-year period through January 2015 (about 0.9 percent per year). For the entire LPR population that entered in 1980–2014, the average emigration rate was about 1.1 percent per year.

j. LPR, refugee, and asylee population on January 1, 2015

Subtracting mortality (2h.) and emigration (2i.) from the LPR, refugee, and asylee flow during 1980–2014 (2g.) results in the estimated LPR, refugee, and asylee resident population on January 1, 2015.

k. Nonimmigrant population on January 1, 2015

The number of nonimmigrants living in the United States on January 1, 2015, was estimated by estimating days of presence between July 1, 2014, and June 30, 2015, and dividing the result by 365 (see Baker, 2017b for a fuller discussion). The estimate was restricted to

classes of admission such as students, temporary workers, and exchange visitors where the length of stay typically exceeds two months. The estimate does not include visitors for business or pleasure or Mexicans admitted with a Border Crossing Card. Year of entry for the 2015 nonimmigrant population was based on the distribution of year of entry for nonimmigrants used in previous DHS illegal alien population estimates.

l. Estimated legally resident immigrant population on January 1, 2015

Adding the population of LPRs, refugees, and asylees on January 1, 2015 (2j.) to the nonimmigrant population on the same date (2k.) results in the total estimated legally resident immigrant population in the United States on January 1, 2015.

3) Illegal alien population

m. Estimated illegal alien population on January 1, 2015

Subtracting the estimated legally resident immigrant population (2l.) from the total foreign-born population on January 1, 2015 (1f.) yields the estimate of the illegal alien population.

The size of each component of the illegal alien population estimates for 2015 is displayed in Table A1-1. For the foreign-born population, the starting point was the estimated 33.9 million foreign-born residents in the 2014 ACS that entered the United States during 1980–2014. This population was increased by 2.6 million, or eight percent, by adjustments for the shift in the reference date from mid-year 2014 to January 1, 2015, and the addition of undercounts for the populations of nonimmigrants, legally resident immigrants, and illegal aliens. The estimated undercount of the illegal alien population in the ACS was 1.2 million and represents slightly less than 50 percent of all adjustments to the foreign-born population.

Table A1-1.

Component Estimates of the Illegal Alien Population: 2015

1) Foreign-born population	
a.	Foreign-born population, entered 1980-2014, 2014 ACS 33,920,000
b.	Adjustment for shift in reference date from July 1, 2014 to January 1, 2015 610,000
c.	Undercount of nonimmigrants in ACS 200,000
d.	Undercount of other legally resident immigrants (LPRs, recent refugee/asylee arrivals) in ACS 560,000
e.	Undercount of illegal alien population in ACS 1,200,000
f.	Estimated foreign-born population, January 1, 2015 (a.+b.+c.+d.+e.) 36,490,000
2) Legally resident population	
g.	LPR, refugee, and asylee flow January 1, 1980-December 31, 2014. 29,550,000
h.	Mortality 1980-2014 2,400,000
i.	Emigration 1980-2014 4,580,000
j.	LPR, refugee, and asylee resident population, January 1, 2015 (g.-h.-i.) 22,570,000
k.	Nonimmigrant population on January 1, 2015 1,950,000
l.	Estimated legally resident population, January 1, 2015 (j.+k.) 24,520,000
3) Illegal alien population	
m.	Estimated resident illegal alien population, January 1, 2015 (f.-l.) 11,960,000

Note: Detail may not sum to totals because of rounding.
Source: U.S. Department of Homeland Security.

For the legally resident population, the starting point was the flow of 29.6 million LPRs, refugees, and asylees during 1980–2014. By January 2015, the 29.6 million had been reduced by 7.0 million to 22.6 million due to mortality (2.4 million) and emigration (4.6 million). The addition of the nonimmigrant population, estimated at 2.0 million, resulted in a total estimated legally resident population of 24.5 million on January 1, 2015. Subtracting the 24.5 million legally resident immigrants from the total 36.5 million foreign-born population on January 1, 2015, that entered the United States during 1980–2014 yields the final estimated illegal alien population of 12.0 million.

Limitations

Annual estimates of the illegal alien population are subject to sampling error in the ACS and considerable nonsampling error because of uncertainty in some of the assumptions required for estimation as indicated below. Caution is recommended in interpreting year-to-year changes in the size of the illegal alien population.

Assumptions about undercount of the foreign-born population in the ACS. The foreign-born—particularly illegal aliens and nonimmigrants—are less likely than native-born Americans to respond to or to be included in responses to government surveys. To control for undercount of these “hard to count” populations, analysts must make assumptions about the extent of the undercount and then adjust the ACS survey estimates accordingly. The estimates are sensitive to these undercount adjustments.

Assumptions about rates of emigration. The preexisting lawfully present population declines over time through mortality and emigration. Mortality rates can be estimated from standard demographic tables, but current, nationally representative data necessary to construct similar tables for emigration rates do not exist. The estimates are sensitive to emigration modeling assumptions.

Accuracy of year of entry reporting. Census data suggest that respondents provide unreliable answers to the Census year-of-entry question (“When did this person come to live in the United States?”), with disproportionate numbers of responses “heaping” on round numbers. Errors also occur in converting DHS administrative dates for legally resident immigrants to year of entry dates.

Assumptions about the nonimmigrant population estimate. The estimates are based on admission dates of nonimmigrants admitted under classes of admission associated with residence and on typical visit lengths as measured by matched arrival and departure records. Thus the estimates are sensitive to sudden changes in visit-length trends; are biased downward to the extent that some nonimmigrants adjust to immigrant status and do not ever depart the United States; and do not conform perfectly to the definition of residence in the ACS.¹¹

Sampling error in the ACS. The estimates of the total foreign-born population that moved to the United States in the 1980–2014 period are based on a sample and are thus subject to sampling variability. Actual year-to-year fluctuations in the population size may be larger or smaller than estimated in the ACS, particularly when the foreign-born population is subdivided by state of residence or country of origin. The estimated margin of error for the estimate of the total foreign-born population in the 2014 ACS PUMS at the 90 percent confidence level is plus or minus approximately 130,000.

Accuracy of state of residence for the non-naturalized legally resident population. State of residence for the non-naturalized legally resident 1980–2014 entrants is assumed to be the state of residence on the date the most recent status (e.g., refugee or LPR) was obtained; however, the accuracy of the estimates may be affected by state-to-state migration that occurred between the date of the status change and January 1, 2015.

Comparisons across years. Although DHS has been producing annual estimates since 2005, comparisons across multiple years are problematic. In addition to sampling error and the uncertainty surrounding the estimates described above, the series of DHS estimates is not fully consistent. In particular, estimates of the foreign-born population from the 2010–2015 ACS were based on the 2010 Decennial Census (adjusted for births, deaths, and migration), whereas estimates from earlier ACS editions were based on the 2000 Census. Comparisons across multiple years should be interpreted with caution.

¹¹ For example, tourists may stay in the United States for two months or longer and thus meet the requirement to be considered “resident” in the ACS, but are not considered to be residents in the DHS estimates.

Appendix 2

UPDATED HISTORICAL ESTIMATES FOR JAN. 2000 THROUGH JAN. 2015

Table A2-1. Illegal Alien Population by Country of Birth and State of Residence: 2000 and 2005–2015

Country of birth and state of residence	Estimated population in January												
	2000	2005	2006*	2007	2008	2009	2010	2010**	2011	2012	2013	2014	2015
Country of birth													
Total . . .	8,460,000	10,490,000	11,310,000	11,780,000	11,600,000	10,750,000	10,790,000	11,590,000	11,510,000	11,430,000	11,210,000	11,460,000	11,960,000
Mexico . . .	4,680,000	5,970,000	6,570,000	6,980,000	7,030,000	6,650,000	6,640,000	6,830,000	6,800,000	6,720,000	6,450,000	6,450,000	6,580,000
El Salvador	430,000	470,000	510,000	540,000	570,000	530,000	620,000	670,000	660,000	690,000	690,000	670,000	750,000
Guatemala.	290,000	370,000	430,000	500,000	430,000	480,000	520,000	520,000	520,000	560,000	590,000	620,000	620,000
India	120,000	280,000	210,000	220,000	160,000	200,000	200,000	270,000	240,000	260,000	320,000	390,000	470,000
Honduras..	160,000	180,000	280,000	280,000	300,000	320,000	330,000	380,000	380,000	360,000	390,000	390,000	440,000
Philippines.	200,000	210,000	280,000	290,000	300,000	270,000	280,000	290,000	270,000	310,000	340,000	330,000	370,000
China	190,000	230,000	170,000	290,000	220,000	120,000	130,000	300,000	280,000	210,000	190,000	230,000	320,000
Korea	180,000	210,000	230,000	230,000	240,000	200,000	170,000	220,000	230,000	230,000	250,000	240,000	230,000
Vietnam..	160,000	150,000	150,000	120,000	80,000	110,000	110,000	190,000	170,000	160,000	160,000	180,000	170,000
Ecuador. . .	***	120,000	150,000	160,000	170,000	170,000	180,000	210,000	210,000	170,000	150,000	170,000	150,000
Other countries. . .	1,940,000	2,300,000	2,340,000	2,170,000	2,100,000	1,700,000	1,610,000	1,720,000	1,750,000	1,760,000	1,670,000	1,790,000	1,870,000
State of residence													
Total . . .	8,460,000	10,490,000	11,310,000	11,780,000	11,600,000	10,750,000	10,790,000	11,590,000	11,510,000	11,430,000	11,210,000	11,460,000	11,960,000
California..	2,510,000	2,770,000	2,790,000	2,840,000	2,850,000	2,600,000	2,570,000	2,910,000	2,830,000	2,820,000	2,780,000	2,730,000	2,880,000
Texas	1,090,000	1,360,000	1,620,000	1,710,000	1,680,000	1,680,000	1,770,000	1,780,000	1,790,000	1,830,000	1,750,000	1,850,000	1,940,000
Florida	800,000	850,000	960,000	960,000	840,000	720,000	760,000	730,000	740,000	730,000	740,000	710,000	810,000
New York. .	540,000	560,000	510,000	640,000	640,000	550,000	460,000	690,000	630,000	580,000	610,000	570,000	590,000
Illinois	440,000	520,000	530,000	560,000	550,000	540,000	490,000	550,000	550,000	540,000	520,000	530,000	450,000
New Jersey	350,000	380,000	420,000	470,000	400,000	360,000	370,000	440,000	420,000	430,000	410,000	450,000	440,000
Georgia . . .	220,000	470,000	490,000	490,000	460,000	480,000	460,000	430,000	440,000	400,000	390,000	410,000	390,000
North Carolina. . .	260,000	360,000	360,000	380,000	380,000	370,000	390,000	390,000	400,000	360,000	400,000	390,000	390,000
Arizona . . .	330,000	480,000	490,000	530,000	560,000	460,000	470,000	350,000	360,000	350,000	350,000	350,000	380,000
Virginia . . .	160,000	240,000	230,000	230,000	230,000	210,000	200,000	220,000	250,000	250,000	240,000	280,000	310,000
Other states	1,760,000	2,510,000	2,900,000	2,970,000	3,010,000	2,780,000	2,840,000	3,080,000	3,110,000	3,140,000	3,170,000	3,190,000	3,390,000

*Revised as noted in the 1/1/2007 illegal alien estimates report published in September 2008.

** Revised to be consistent with estimates derived from the 2010 Census.

*** Estimate not available for Jan. 2000.

Notes: Detail may not sum to totals because of rounding. Estimates for 2013 and 2014 have been updated since the 2014 edition of this report (see Appendix 1, Section 1a).
Source: U.S. Department of Homeland Security.

REFERENCES

Ahmed, Bashir and J. Gregory Robinson, 1994. "Estimates of Emigration of the Foreign-Born Population: 1980-1990," Technical Working Paper No. 9, U.S. Bureau of the Census, <http://www.census.gov/population/www/documentation/twps0009/twps0009.html>

Arias, Elizabeth and Lester R. Curtin, Rong Wei and Robert N. Anderson, 2008. "U.S. Decennial Life Tables for 1999-2001, United States Life Tables," National Vital Statistics Report 57 (1), National Center for Health Statistics, Centers for Disease Control, http://www.cdc.gov/nchs/data/nvsr/nvsr57/nvsr57_01.pdf

Baker, Bryan, 2017a. "Estimates of the Unauthorized Immigrant Population Residing in the United States: January 2014," Office of Immigration Statistics, Policy Directorate, U.S. Department of Homeland Security, https://www.dhs.gov/sites/default/files/publications/Unauthorized%20Immigrant%20Population%20Estimates%20in%20the%20US%20January%202014_1.pdf

Baker, Bryan, 2017b. "Nonimmigrants Residing in the United States: Fiscal Year 2016," Office of Immigration Statistics, Policy Directorate, U.S. Department of Homeland Security.

Office of Immigration Statistics, 2017. "Efforts by DHS to Estimate Southwest Border Security between Ports of Entry," Office of Immigration Statistics, Policy Directorate, U.S. Department of Homeland Security, https://www.dhs.gov/sites/default/files/publications/17_0914_estimates-of-border-security.pdf

Passel, Jeffrey S. and D'Vera Cohn, 2016. "Unauthorized immigrant population stable for half a decade," Pew Research Center, <http://www.pewresearch.org/fact-tank/2016/09/21/unauthorized-immigrant-population-stable-for-half-a-decade/>

U.S. Census Bureau, 2011. "Change in Population Controls," American Community Survey Research Note, https://www.census.gov/newsroom/releases/pdf/acs_2010_population_controls.pdf

U.S. Department of Homeland Security, 2003. "Estimates of the Unauthorized Immigrant Population Residing in the United States: 1990 to 2000," http://www.dhs.gov/xlibrary/assets/statistics/publications/III_Report_1211.pdf

Warren, Robert, 2017. "Zero Undocumented Population Growth Is Here to Stay and Immigration Reform Would Preserve and Extend These Gains", Journal on Migration and Human Security, Volume 5, Number 2 (2017).

Warren, Robert and Jeffrey S. Passel, 1987. "A Count of the Uncountable: Estimates of Undocumented Aliens Counted in the 1980 United States Census," *Demography* 24:375-393.