

Estimates of the Unauthorized Immigrant Population Residing in the United States: January 2008

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This report provides estimates of the number of unauthorized immigrants residing in the United States as of January 2008 by period of entry, region and country of origin, state of residence, age and gender. The estimates were obtained using the “residual” methodology employed for estimates of the unauthorized population in 2007 (see Hoefler, Rytina and Baker, 2008). The unauthorized resident population is the remainder or “residual” after estimates of the legally resident foreign-born population – legal permanent residents (LPRs), asylees, refugees, and nonimmigrants – are subtracted from estimates of the total foreign-born population. Data to estimate the legally resident population were obtained primarily from the Department of Homeland Security (DHS) while the American Community Survey (ACS) of the U.S. Census Bureau was the source for estimates of the total foreign-born population.

In summary, the number of unauthorized immigrants living in the United States declined from 11.8 million in January 2007 to 11.6 million in January 2008. The 2008 estimate marks the first time since 2005 when DHS began producing annual estimates that there was not a year-to-year increase in unauthorized residents. During the 2000-2008 period, the unauthorized immigrant population increased by 37 percent.

DEFINITIONS

Legal Residents

The legally resident immigrant population as defined for these estimates includes all persons who were granted lawful permanent residence; granted asylee status; admitted as refugees; or admitted as nonimmigrants for a temporary stay in the United States and not required to leave by January 1, 2008. Nonimmigrant residents refer to certain aliens who were legally admitted temporarily to the United States for specified time periods such as students and temporary workers.

Unauthorized Residents

The unauthorized resident immigrant population is defined as all foreign-born non-citizens who are not legal residents. Unauthorized residents refer to foreign-born persons who entered the United States without

inspection or were admitted temporarily and stayed past the date they were required to leave. Unauthorized immigrants applying for adjustment to lawful permanent residence under the Immigration and Nationality Act (INA) Section 245(i) are unauthorized until they have been granted LPR status, even though they may have been authorized to work. Similarly, unauthorized immigrants who have applied for asylum or Temporary Protected Status (TPS) are considered to be unauthorized residents. Persons who are beneficiaries of TPS are not technically unauthorized but were excluded from the legally resident immigrant population because data are unavailable in sufficient detail to estimate this population.¹

METHODOLOGY AND DATA

Two populations are estimated in order to derive the unauthorized population estimates: 1) the total foreign-born population living in the United States on January 1, 2008, and 2) the legally resident population on the same date. The unauthorized population is equal to 1) minus 2). It was assumed that foreign-born residents who had entered the United States prior to 1980 were legally resident since most were eligible for

¹ U.S. Citizenship and Immigration Services (USCIS) estimates that several hundred thousand persons had TPS status in 2007.



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legal permanent resident status.² 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 foreign-born population that entered during 1980-2007 by country of birth, state of residence, year of entry, age and gender were obtained from the 2007 American Community Survey (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 3 million households in 2007 compared to 100,000 for the March 2008 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, category of admission, and year of entry were obtained from DHS administrative records maintained in an application case tracking system of U.S. 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 of Immigration Review of the Department of Justice for those granted asylum defensively through removal proceedings. Data on nonimmigrant admissions by country of citizenship, state of residence, age, and class of admission were obtained from I-94 arrival-departure records in the Treasury Enforcement Communications System (TECS) of U.S. Customs and Border Protection.

The estimates were generated by country of birth and state of residence for the unauthorized population living in the 50 States and the District of Columbia. The Cuban-born population living in the United States was excluded from the estimates since, according to immigration law, Cubans living in the United States more than a year are eligible to apply to adjust to LPR status.

Caution is recommended in interpreting changes in the size of the unauthorized population presented in this report. The annual estimates of the unauthorized immigrant population are subject to sampling error in the ACS and a considerable amount of nonsampling error because of uncertainty in some of the assumptions required for estimation (see Limitations below). Calculating annual change over a period of years smoothes the fluctuations that may occur in adjacent years.

Limitations

Assumptions about undercount of the foreign-born population in the ACS and rates of emigration. The estimates are sensitive to the assumptions that are made about these components (see **RESULTS**).

Accuracy of year of entry reporting. Concerns exist among immigration analysts regarding the validity and reliability of Census survey data

² The Registry Provision of the Immigration and Nationality Act (INA) allows persons who have been in the United States since January 1, 1972 to apply for LPR status. Additionally, persons who had lived in the United States before 1982 as unauthorized residents were eligible to adjust to LPR status under the Immigration Reform and Control Act (IRCA) of 1986.

on the year of entry question “When did this person come to live in the United States?” 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 counts and length of visit by class of admission and not actual population counts. Length of visit, which is calculated by matching arrival and departure records, is subject to more error than admissions data.

Sampling error in the ACS. The 2007 ACS data are based on a sample of the U.S. population. Thus the estimates of the total foreign-born population that moved to the United States in the 1980-2007 period are subject to sampling variability. The estimated margin of error for the estimate of the foreign-born population in the 2007 ACS at the 90 percent confidence level is plus or minus approximately 151,000.

Accuracy of state of residence for the legally resident population. State of residence for legally resident 1980-2007 entrants is assumed to be the state of residence on the date the most recent status (e.g. refugee, LPR, or naturalized citizen) 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, 2008.

RESULTS

Overall Trend

DHS estimates that the unauthorized immigrant population in the United States numbered 11.6 million in January 2008 compared to 11.8 million in January 2007, 11.3 million in January 2006, 10.5 million in January 2005, and 8.5 million in 2000 (see Figure 1). The increase in the unauthorized population between 2000 and 2008 was 3.1 million or 37 percent. The annual average net increase in the unauthorized population during this 8-year period was 390,000.

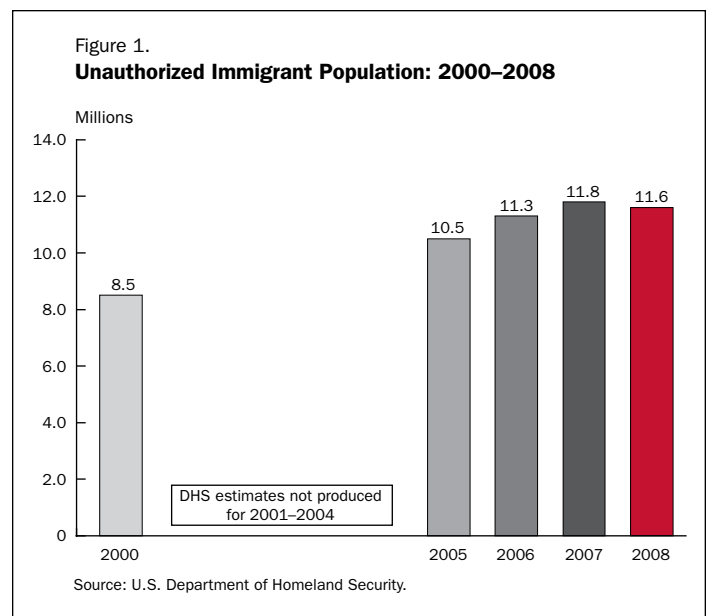


Table 1.**Period of Entry of the Unauthorized Immigrant Population: January 2008**

Period of entry	Estimated population January 2008	
	Number	Percent
All years	11,600,000	100
2005-2007	1,070,000	9
2000-2004	3,250,000	28
1995-1999	3,260,000	28
1990-1994	1,800,000	16
1985-1989	1,310,000	11
1980-1984	900,000	8

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

The decrease in the size of the unauthorized population between 2007 and 2008 may be due to sampling error in the estimate of the foreign-born population in the 2007 ACS. Nonsampling errors listed above (see Limitations), especially in the estimates of undercount of the foreign-born population in the ACS and emigration of legally resident immigrants, may also have had a sizable impact on the estimates. However, the estimates show that the unauthorized population was increasing from 2000 until 2007. The trends reported by DHS are consistent with estimates by the Pew Hispanic Center showing 11.9 million unauthorized immigrants living in the United States in March 2008, 12.4 million in March 2007, 11.5 million in March 2006, and 11.1 million in March 2005 (Passel and Cohn, 2008).

The sensitivity of the estimates to assumptions about undercount of the foreign-born population and emigration is illustrated with several examples. Doubling the unauthorized immigrant undercount rate from 10 percent to 20 percent increases the estimated unauthorized population from 11.6 million to 13.0 million. By lowering or raising emigration rates 20 percent and holding all

other assumptions constant, the estimated unauthorized immigrant population would range from 10.9 million to 12.3 million. Doubling the unauthorized immigrant undercount rate and lowering or raising emigration rates by 20 percent would expand the range of the estimated unauthorized immigrant population to 12.3-13.8 million.

Period of Entry

Just over 4.3 million (37 percent) of unauthorized immigrants in 2008 had entered the United States since January 1, 2000 (see Table 1). An estimated 1.1 million (9 percent) came to the United States between 2005 and 2007 while 3.3 million (28 percent) came during 2000 to 2004. Forty-four percent came to live in the United States during the 1990s, and 19 percent entered during the 1980s.

Components of the Unauthorized Immigrant Population in 2008

The size of each component of the unauthorized immigrant population estimates for 2008 is displayed in Table 2. See Appendix 1 for a detailed explanation of each entry in Table 2. For the foreign-born population, the starting point was the estimated 28.9 million foreign-born residents in the 2007 ACS that entered the United States during 1980-2007. This population was increased by 2.4 million, or 8 percent, by adjustments for the shift in the reference date from mid-year 2007 to January 1, 2008 and the addition of undercounts for the populations of nonimmigrants, other legally resident immigrants, and unauthorized immigrants. The estimated undercount of the unauthorized immigrant population in the ACS was nearly 1.2 million and represents 49 percent of all adjustments to the foreign-born population.

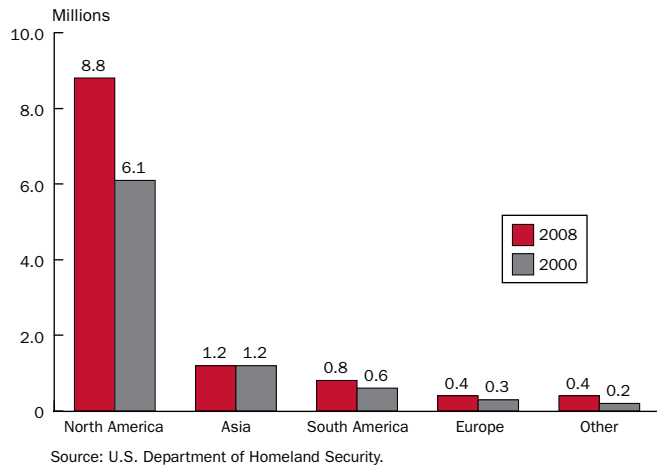
For the legally resident population, the starting point was the flow of 22.4 million LPRs, refugees and asylees during 1980-2007. By January 2007, the 22.4 million had been reduced by 4.6 million

Table 2.**Components of the Unauthorized Immigrant Population: January 2008**

	2008
1) Foreign-born population	
a. Foreign-born population, entered 1980-2007, 2007 ACS	28,890,000
b. Adjustment for shift in reference date from July 1, 2007 to January 1, 2008.	600,000
c. Undercount of nonimmigrants in ACS	180,000
d. Undercount of other legally resident immigrants (LPRs, recent refugee/asylee arrivals) in ACS	450,000
e. Undercount of unauthorized immigrant population in ACS	1,160,000
f. Estimated foreign-born population, January 1, 2008 (a.+b.+c.+d.+e.)	31,280,000
2) Legally resident population	
g. LPR, refugee, and asylee flow January 1, 1980–December 31, 2007	22,440,000
h. Mortality 1980-2007	1,380,000
i. Emigration 1980-2007.	3,230,000
j. LPR, refugee, and asylee resident population, January 1, 2008 (g.-h.-i.)	17,840,000
k. Nonimmigrant population on January 1, 2008.	1,840,000
l. Estimated legally resident population, January 1, 2008 (j.+k.)	19,680,000
3) Unauthorized immigrant population	
m. Estimated resident unauthorized immigrant population, January 1, 2008 (f.-l.)	11,600,000

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

Figure 2.
Region of Birth of the Unauthorized Immigrant Population:
January 2008 and 2000



to 17.8 million due to mortality and emigration. Emigration accounted for 3.2 million, or 70 percent, of the 4.6 million. The addition of the nonimmigrant population, estimated at 1.8 million, resulted in a total estimated legally resident immigrant population of 19.7 million on January 1, 2008. Subtracting the 19.7 million legally resident immigrants from the total 31.3 million foreign-born population on January 1, 2008 that entered the United States during 1980-2007 yields the final estimated unauthorized population of 11.6 million.

Estimates by Region and Country of Birth

An estimated 8.8 million of the total 11.6 million unauthorized immigrants living in the United States in 2008 were from the North America region, including Canada, Mexico, the Caribbean, and Central America (see Figure 2). The next leading regions of origin were Asia (1.2 million) and South America (850,000). The 2000 unauthorized immigrant population was similar in region of origin composition.

Mexico continued to be the leading source of unauthorized immigration to the United States (see Table 3). The estimated unauthorized immigrant population from Mexico increased from 4.7 million in 2000 to 7.0 million or 61

percent of the total unauthorized in January 2008. The annual average increase in Mexican unauthorized immigration to the United States was 290,000 during the 2000-2008 period. The next leading source countries for unauthorized immigrants in 2008 were El Salvador (570,000), Guatemala (430,000), the Philippines (300,000) and Honduras (300,000).

The ten leading countries of origin represented 83 percent of the unauthorized immigrant population in 2008. Although immigration from Mexico continues to dominate unauthorized population growth, the greatest percentage increases during 2000-2008 were among immigrants from Honduras (81 percent) and Brazil (72 percent).

Estimates by State of Residence

California remained the leading state of residence of the unauthorized immigrant population in 2008, with 2.9 million (see Table 4). The next leading state, Texas, had 1.7 million unauthorized residents, followed by Florida with 840,000 and New York with 640,000. California's share of the national total declined from 30 percent in 2000 to 25 percent in 2008. The greatest percentage

Table 3.
Country of Birth of the Unauthorized Immigrant Population: January 2008 and 2000

Country of birth	Estimated population in January		Percent of total		Percent change	Average annual change
	2008	2000	2008	2000	2000 to 2008	2000 to 2008
All countries	11,600,000	8,460,000	100	100	37	390,000
Mexico	7,030,000	4,680,000	61	55	50	290,000
El Salvador	570,000	430,000	5	5	35	20,000
Guatemala	430,000	290,000	4	3	48	20,000
Philippines	300,000	200,000	3	2	51	10,000
Honduras	300,000	160,000	3	2	81	20,000
Korea	240,000	180,000	2	2	37	10,000
China	220,000	190,000	2	2	14	—
Brazil	180,000	100,000	2	1	72	10,000
Ecuador	170,000	110,000	1	1	50	10,000
India	160,000	120,000	1	1	29	—
Other countries	2,000,000	2,000,000	17	24	0	—

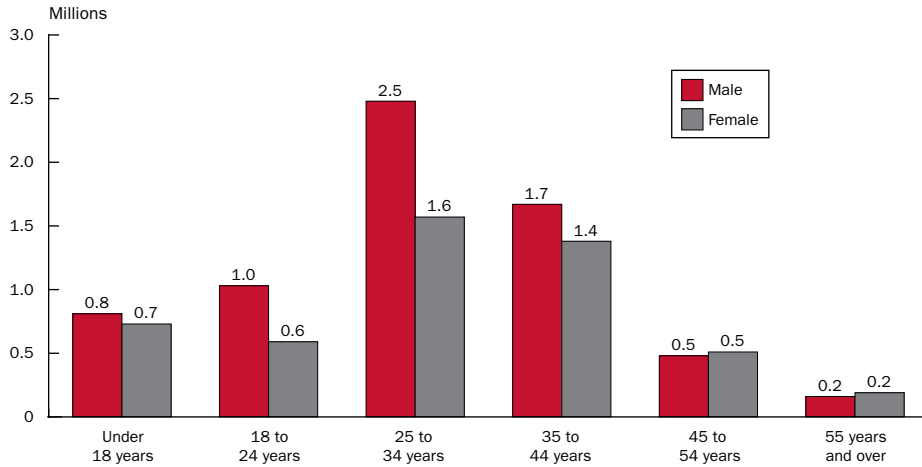
— Represents less than 5,000.
Detail may not sum to totals because of rounding.
Source: U.S. Department of Homeland Security.

Table 4.
State of Residence of the Unauthorized Immigrant Population: January 2008 and 2000

State of residence	Estimated population in January		Percent of total		Percent change	Average annual change
	2008	2000	2008	2000	2000 to 2008	2000 to 2008
All states	11,600,000	8,460,000	100	100	37	390,000
California	2,850,000	2,510,000	25	30	14	40,000
Texas	1,680,000	1,090,000	14	13	55	70,000
Florida	840,000	800,000	7	9	6	10,000
New York	640,000	540,000	6	6	19	10,000
Arizona	560,000	330,000	5	4	70	30,000
Illinois	550,000	440,000	5	5	26	10,000
Georgia	460,000	220,000	4	3	105	30,000
New Jersey	400,000	350,000	3	4	12	10,000
North Carolina	380,000	260,000	3	3	46	10,000
Nevada	280,000	170,000	2	2	70	10,000
Other states	2,950,000	1,760,000	25	21	68	150,000

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

Figure 3.
Age by Gender of the Unauthorized Immigrant Population: January 2008



Source: U.S. Department of Homeland Security.

increases in the unauthorized population between 2000 and 2008 occurred in Georgia (105 percent), Arizona (70 percent), and Nevada (70 percent).

Estimates by Gender and Age

Males represented 57 percent of the unauthorized immigrant population in 2008 (see Figure 3 and Table 5). Males accounted for 62 percent of the unauthorized population in the 18 to 34 age group in 2008 while females accounted for 52 percent of the 45 and older age groups.

NEXT STEPS

The estimates presented here will be updated periodically based on annual data of the foreign-born population collected in the American Community Survey and on the estimated lawfully resident foreign-born population derived from various administrative data sources.

Table 5.
Age by Gender of the Unauthorized Immigrant Population: January 2008

Age	Total		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
All ages	11,600,000	100	6,640,000	100	4,960,000	100
Under 18 years	1,540,000	13	810,000	12	730,000	15
18 to 24 years	1,620,000	14	1,030,000	15	590,000	12
25 to 34 years	4,050,000	35	2,480,000	37	1,570,000	32
35 to 44 years	3,050,000	26	1,670,000	25	1,380,000	28
45 to 54 years	990,000	9	480,000	7	510,000	10
55 years and over	350,000	3	160,000	2	190,000	4

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

APPENDIX 1

Components for Estimating the Unauthorized Resident Population

The material below describes how each component was estimated. Note that the labels for each component correspond with the entries in Table 2.

1) Foreign-born population

a. Foreign-born population, entered 1980-2007

The estimated total foreign-born population that entered between 1980-2007 was obtained from the ACS's FactFinder. FactFinder is the Census-maintained online data portal for obtaining ACS estimates from the full sample for a particular year. Data on the distribution of the foreign born by country of origin, state of residence, year of entry, age and gender were obtained from the 2007 Public Use Microdata Sample (PUMS). The overall FactFinder 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.

b. Shift in reference date to January 1, 2008

The reference date for population estimates from the ACS is mid-year. The reference date for the 2007 ACS, the most recently available ACS data, was shifted to January 1, 2008 by multiplying the population of 2007 entrants by 1.82 which is the average of five ratios: the ratio of the estimated population in the 2007 ACS that entered the United States during 2006 compared to the population in the 2006 ACS that entered in 2006 and the comparable ratios for the 2005, 2004, 2003, and 2002 entrants. The adjustment ratio was relatively stable across previous ACS surveys.

c. Undercount of nonimmigrants in the ACS

Undercount refers to the number of persons who should have been counted in a survey or census, but were not. A rate of 10 percent was used to estimate the nonimmigrant undercount. This rate was used in previous DHS unauthorized population estimates for 2000 and 2005-2007 (Department of Homeland Security, 2003; Hoefler et al., 2006, 2007, 2008).

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

A rate of 2.5 percent was used. This was the same rate used in DHS estimates for 2000 and 2005-2007 (Department of Homeland Security, 2003; Hoefler et al., 2006, 2007, 2008).

e. Undercount of unauthorized immigrants in the ACS

A rate of 10 percent was used. This was the same rate used in previous DHS estimates for 2000 and 2005-2007 (Department of Homeland Security, 2003; Hoefler et al., 2006, 2007, 2008).

f. Estimated foreign-born population, January 1, 2008

The sum of 1a. through 1e. (above) is the estimated foreign-born population on January 1, 2008 that entered the United States during the 1980-2007 period.

2) Legally resident population

g. Legal permanent resident (LPR), refugee, and asylee flow, entered 1980-2007

The 1980-2007 flow was calculated separately for LPRs, refugees, and asylees. LPRs consist of two groups: new arrivals and those who have adjusted status. New arrivals include all persons with immigrant visas issued by the State Department 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 2007 prior to adjustment. Year of entry was imputed when last entry date was missing (concentrated during 1998-2005 and affecting approximately 40 percent of adjustment of status records) using category of admission, year of LPR adjustment, and known last entry date.

Refugees and asylees included in the legally resident flow entered the United States during 1980-2007 but had not adjusted to LPR status as of January 1, 2008. This flow was estimated based on the average time spent in the status before adjustment to LPR status. Refugees and asylees who obtained LPR status during 2007 spent an average of 2.7 years and 5.3 years, respectively, before adjusting status. The refugee and asylee portion of the legally resident flow therefore included refugees who arrived in the United States during the 2.7 years prior to 2008 and persons granted asylum during the 5.3 years preceding 2008.

h. Mortality of legally resident flow 1980-2007

Data are not collected on the mortality of legally resident immigrants. LPRs were survived to 2008 by gender and age (taking into account subsequent naturalization) using mortality rates by age and sex from 1989-1991 life tables (National Center for Health Statistics, 1997). For immigrants in the 1980-2007 flow who obtained LPR status, the median year of entry was 1993.

i. Emigration of legally resident flow 1980-2007

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 by year of entry (year of naturalization if the immigrant subsequently became a U.S. citizen) were calculated from estimates of emigration of the foreign-born population based on 1980 and 1990 Census data

(Ahmed and Robinson, 1994). In addition, refugees and asylees, with little likelihood of returning to their country of origin, were assumed not to emigrate. The overall effective rate of emigration for legally resident immigrants in 2008 was about 21 percent after twenty years.

j. LPR, refugee, and asylee population on January 1, 2008

Subtracting mortality (2h.) and emigration (2i.) from the LPR, refugee, and asylee flow during 1980-2007 (2g.) results in the estimated LPR, refugee, and asylee resident population on January 1, 2008.

k. Nonimmigrant population on January 1, 2008

The number of nonimmigrants living in the United States on January 1, 2008 was estimated by multiplying the number of nonimmigrant admissions between July 1, 2007 and June 30, 2008 by the average length of visit and dividing this figure by 365. 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 estimates do not include border crossers or visitors for business or pleasure. The year of entry for the 2008 nonimmigrant population was based on the distribution of year of entry for nonimmigrants used in previous DHS unauthorized immigrant population estimates (Department of Homeland Security, 2003; Hoefler et al., 2006, 2007, 2008).

l. Estimated legally resident immigrant population on January 1, 2008

Adding the population of LPRs, refugees, and asylees on January 1, 2008 (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, 2008.

3) Unauthorized immigrant population

m. Estimated unauthorized immigrant population on January 1, 2008

Subtracting the estimated legally resident immigrant population (2l.) from the total foreign-born population on January 1, 2008 (1f.) yields the estimate of the unauthorized immigrant population.

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>

Hoefler, Michael, Nancy Rytina and Christopher Campbell, 2006. "Estimates of the Unauthorized Immigrant Population Residing in the United States: January 2005," Office of Immigration Statistics, Policy Directorate, U.S. Department of Homeland Security, http://www.dhs.gov/xlibrary/assets/statistics/publications/ILL_PE_2005.pdf

Hoefler, Michael, Nancy Rytina and Christopher Campbell, 2007. "Estimates of the Unauthorized Immigrant Population Residing in the United States: January 2006," Office of Immigration Statistics, Policy Directorate, U.S. Department of Homeland Security, http://www.dhs.gov/xlibrary/assets/statistics/publications/ILL_PE_2006.pdf

Hoefler, Michael, Nancy Rytina and Bryan C. Baker, 2008. "Estimates of the Unauthorized Immigrant Population Residing in the United States: January 2007," Office of Immigration Statistics, Policy Directorate, U.S. Department of Homeland Security, http://www.dhs.gov/xlibrary/assets/statistics/publications/ILL_PE_2007.pdf

National Center for Health Statistics, 1997. U.S. Decennial Life Tables for 1989-91, Vol. 1, No. 1. Hyattsville, Maryland, U.S. Government Printing Office.

Passel, Jeffrey S. and D'Vera Cohn, 2008. "Trends in Unauthorized Immigration: Undocumented Inflow Now Trails Legal Inflow," Pew Hispanic Center, <http://pewhispanic.org/files/reports/94.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/ill_Report_1211.pdf