# FWD.US Methodology for Estimating the Immigration Status of the 2024 U.S. Immigrant Population

## Overview

No large-scale survey provides the immigration status of the U.S. immigrant population. Also, a current and detailed estimate of the total immigrant population is elusive, especially given the high usage of parole and the number of those entering via the U.S. southern border in recent years. This methodology seeks to explain how both data-related challenges are addressed by assigning immigration status in the 2023 American Community Survey and projecting the immigrant population forward to 2024.[1]

Fortunately, likely immigration status in the 2023 ACS can be assigned using demographic, social, and economic characteristics of respondents.[2] As immigrants can be undercounted in surveys, particularly those with undocumented status, the 2023 ACS data are first reweighted based on known 2020 Census undercounting of certain groups, including ethnicity and race, age, sex, and housing status.[3] Also, an analysis of the 2023 ACS shows that a considerable number of those who entered the U.S. through parole or lawfully through ports of entry and border patrol encounters at the U.S. southern land border in 2021 to 2023 do not appear in the 2023 data.[4] These new arrivals are highly transient and largely out of reach for surveys like the ACS. Consequently, data for 2023 are upwardly weighted by year of entry, nationality, and age (adult vs. minor) to provide a more realistic picture of the immigrant population as of 2023.

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1   Immigrants are defined as individuals who were not born in the U.S. or its territories. Individuals born to U.S. citizens living abroad are not considered immigrants.

2   The 2023 ACS data are drawn from IPUMS. *Steven Ruggles, Sarah Flood, Matthew Sobek, Daniel Backman, Annie Chen, Grace Cooper, Stephanie Richards, Renae Rogers, and Megan Schouweiler. IPUMS USA: Version 14.0 [2023 ACS]. Minneapolis, MN: IPUMS, 2024. https://doi.org/10.18128/D010.V14.0.*

3   Adding this adjustment to current ACS weights enlarges the total immigrant population slightly, to 48.8 million, from 47.8 million in 2023, and reflects the likely undercounting of immigrant groups within the U.S. in that year. This reweighting approach at the beginning of the immigrant assignment process was selected instead of the undercounting adjustment typically made for undocumented immigrants (and conversely the overcounting adjustment among immigrants with lawful permanent residency) that other researchers perform. The undercounting of undocumented immigrants in surveys has been established by a number of studies, including Van Hook et al., 2014; Bean et al., 1998; Capps et al., 2002; and Marcelli and Ong, 2002, and must be taken into account. However, these undercounting adjustments are based on studies from several years ago. We would expect that a number of factors (political, security, technology) may affect potential undercounting of undocumented immigrants in the U.S. differently since these studies were conducted. At the same time, we know there is a strong correlation between the undercounting of certain demographic groups (ethnic and racial minorities, younger age groups, renters) as found in the 2020 Census post-enumeration study and the expected demographic characteristics of undocumented immigrants. Consequently, this immigrant assignment project uses the most recent data available to correct for possible undercounting of certain immigrant groups, of which undocumented immigrants are one of the largest.

4   This was determined by analyzing the migration variables in the ACS and comparing annual entry figures with data from DHS and CBP.

In projecting the immigrant population forward to 2024, previous immigration trends and conventional demographic techniques are used. In adding immigrants who have entered the U.S. since 2023, researchers rely on administrative data from the Department of Homeland Security (DHS), Customs and Border Protection (CBP), and other administrative data to obtain immigrant population flow estimates through September 30, 2024 by their immigration status.[5] *These added immigration inflows in projecting forward to 2024 are itemized in italics.* In determining the characteristics of these added immigrant inflows, the population weights in the 2023 ACS were reweighted by nationality, and sometimes age (adult vs. minor), to reflect the same characteristics of arrivals entering the U.S. in 2024. When complete, the resulting dataset offers population estimates and characteristics for the 2024 immigrant population. The resulting size of the immigrant population in 2024 is slightly more than 51 million, consistent with estimates in the latter months of 2024 in the U.S. Census Bureau's Current Population Survey.

## U.S. Naturalized Citizens

The identification of naturalized U.S. citizens is primarily based on the self-identification of U.S. citizenship among immigrant respondents in the ACS. However, the anticipated size of this population, as based on DHS reporting, is larger in the ACS data than would be expected. Consequently, some adjustments of respondents indicating naturalization are made.[6]

In ACS data, any married respondents entering the U.S. within the past three years are not considered U.S. citizens; similarly, unmarried respondents entering the U.S. within the past five years are also not considered U.S. citizens. These immigrants are mostly ineligible to apply for and receive U.S. citizenship given the short time they have lived in the U.S.[7] Similarly, individuals indicating a naturalization year in the ACS data that is earlier than their entry date into the U.S., or who have lived in the U.S. less than two years before being naturalized, are not considered U.S. citizens.

*In projecting estimates forward to 2024, the target number of naturalized individuals, based on DHS data, who were naturalized in 2023, are randomly selected among those who likely had lawful permanent residency and have been in the U.S. for more than 10 years, potentially eligible for U.S. citizenship. These selected individuals had their status changed from permanent residency to naturalized U.S. citizens.*

## Lawful Permanent Residents (LPR)

Some immigrant groups, based on entry date into the U.S., social relationships, place of birth, employment in certain occupations, and use of public benefits, are likely to have lawful permanent

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5    To obtain final immigrant population estimates, emigration rates are also applied with a 0.5% emigration rate for those who entered the U.S. prior to 2019 (five years before) and 1% for those entering the U.S. 2019 or later, reflecting a difference of emigration rates between earlier and later arrived immigrants used by other researchers. Similarly, survivability rates to account for mortality, again using population reweighting, are applied by age and sex. These demographic adjustments were made prior to the insertion of new inflows of immigrants during 2021-24. Only the foreign-born population is projected to 2024.

6    Reasons for incorrectly indicating U.S. citizenship are many, including confusion surrounding the question and fear of apprehension when self-identifying immigration status.

7    Lawful permanent residents are eligible to apply three years after receiving legal permanent residency with a spouse as immediate relative, and five years without a spouse as immediate relative.

residency. For example, all immigrants in ACS data who arrived before 1982 and who are not U.S. citizens are assumed to have LPR status. It is assumed that these immigrants living in the U.S. for more than 40 years have found a pathway for lawful permanent residency, especially given the 1986 IRCA provisions offering lawful permanent residency to undocumented immigrants entering the U.S. before 1982.

Immigrant spouses married to U.S. citizens (born in the U.S. or naturalized) for 12 years or longer are assigned LPR status, as most spouses of U.S. citizens would have had an accessible pathway to LPR status during this period.

Cubans entering the U.S. in 2021 or earlier are considered to have LPR status, allowing for sufficient time to adjust their status, according to the Cuban Adjustment Act of 1966.

Immigrants resettled as refugees from top countries of birth—Bhutan, Iraq, Afghanistan, Democratic Republic of Congo, Burma (Myanmar), Somalia, Republic of South Sudan, and Eritrea—who entered the U.S. since 2014 are assumed to have LPR status. A random selection of immigrants with populations in the ACS data greater than the number of resettled refugees from Iran, Ethiopia, Syria, Russia, Moldova, Ukraine, and Sudan entering the U.S. since 2014 was also assigned LPR status. LPR status is assigned to all members of the family from the same nationality in the home who are randomly selected.

Non-U.S. citizens working in occupations that require lawful status due to official licensure, such as certain medical professionals, transportation workers (for example, railway engineers and pilots), and government workers, are considered to have lawful permanent residency. Non-U.S. citizen veterans and those using government health insurance and/or social welfare programs (for example, Medicaid and Medicare, Social Security, TANF, Supplemental Security Income, food stamps) are also assumed to be lawful permanent residents.

Immigrants living in the U.S. but waiting for an adjustment of status to LPR are considered LPR recipients in this exercise, as they are likely to obtain LPR within a year. For those adjusting via family relations, this group of immigrants is based on those who arrived in the U.S. in 2022 and are a spouse of a U.S. citizen. A further group representing those adjusting to permanent status via employment consists of a random sample of those with at least an undergraduate degree, are in the labor force, speak English, own a home, and entered the U.S. in 2014 or later. The resulting population is similar to the number of those adjusting to permanent residency status in 2024, according to DHS statistics.

Finally, spouses and children of adult family members with LPR who all entered the U.S. the same year are all assumed to have lawful permanent residency. The total number of respondents in the ACS with assigned LPR status is similar to other estimates from the Pew Research Center and DHS, as well as actual active LPR status from USCIS.

*For additional lawful permanent residents via refugee resettlement entering the U.S. in fiscal 2024, data from the State Department are used and added to this population. These additional individuals are added using a population reweighting of LPR-assigned immigrants with refugee resettlement by nationality*

*entering the previous five years. This reweighting occurred after the immigrant status assignment for all immigrant groups in the 2023 ACS was complete.[8]*

*For additional lawful permanent residents besides refugee resettlement who entered the U.S. in fiscal 2024, individuals granted LPR through nonadjustment during fiscal 2023 are added to this population as indicative of likely immigration of this group in fiscal 2024. These additional individuals are added using a population reweighting of LPR-assigned immigrants by nationality (nonrefugees) entering in 2022 or 2023. This reweighting occurred after the immigrant status assignment for all immigrant groups in the 2023 ACS was complete.*

## Nonimmigrants (temporary immigrants)

**Diplomats.** Immigrant respondents in the ACS who are older than 21, hold a high school diploma or higher education, and work in international government service industries are considered diplomatic nonimmigrants. Diplomatic visa population estimates are similar to recent figures in DHS estimates and Department of State visa approvals for nonimmigrants with A, G, and N visas.

*Diplomatic visas are not added for 2024 projections, as it is assumed that the size of this population largely stays the same year to year.*

**F-1 and M-1 international students.** Immigrants in the ACS arriving in the U.S. up to 5 years earlier (for undergraduate students) and 12 years earlier (for graduate students) and attending school in a higher education institution are considered international students. The resulting population estimate for international students is similar to the number of international students recorded by Open Doors.

*F-1 and M-1 international students for 2024 projections are a reweighted population representing the numeric increase from the 2022-2023 to the 2023-2024 academic years (based on Open Doors trends) and proportionally applied to international students assigned in the ACS who entered in 2023.*

**Optional Practical Training (OPT) participants.** OPT is a professional training opportunity for international students in the U.S. It offers those with F-1 student nonimmigrant status a job experience for up to three years. Immigrants in the ACS ages 22 to 30, who arrived since 2017, who are employed and hold a bachelor's degree or higher, are considered OPT holders. To differentiate this group from newly arrived immigrants starting their careers under a different visa, those assigned OPT status in the ACS are further defined as not owning a home. The resulting OPT population estimate is similar to those published in Open Doors.

*The OPT population for 2024 projections is a reweighted population representing the proportional increase in OPT participants from the 2022-2023 to the 2023-2024 academic years (based on Open Doors trends).*

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8    Newly arrived refugees resettled in the U.S. do not receive permanent residency; instead, they can apply for it after one year of living in the U.S. Nonetheless, the recently arrived refugee populations in this exercise are considered permanent residents, as most adjust their status a year later.

**H-1B specialty occupation visa holders.** Professional, skilled workers with H-1B status can generally live and work in the U.S. for up to six consecutive years. Immigrants in the ACS 22 years and older who hold a bachelor's degree or higher education, entering the U.S. in 2013 or later, and are working in a top occupation of H-1B visa holders according to Department of Labor data, are considered H-1B visa holders. H-1B population estimates are similar to estimates published by U.S. Citizenship and Immigration Services (USCIS).

*The H-1B population for 2024 projections is a reweighted population according to the number of H-1B individuals assigned in the ACS who entered in 2023.*

**H-2A agricultural workers.** Immigrants in the ACS who were born in H-2A eligible countries, are ages 18 through 64, who entered the U.S. in 2018 or later, and who are working in agricultural occupations according to Department of Labor data, are considered H-2A agricultural workers. Resulting population estimates are similar to the annual number of H-2A workers certified to work in the U.S., with downward adjustments, as all workers do not remain in the U.S. for the entire year.

*The H-2A population for 2024 projections is a reweighted population according to the number of H-2A individuals assigned in the ACS who entered in 2023.*

**H-2B non-agricultural workers.** Immigrants in the ACS from H-2B eligible countries who are ages 18 through 64, entered the U.S. in 2018 or later, and are working in top, selected H-2B occupations, according to Department of Labor data, are considered non-agricultural workers. Resulting population estimates are similar to the annual number of H-2B workers certified to work in the U.S., with downward adjustments, as all workers do not remain in the U.S. for the entire year.

*The H-2B population for 2024 projections is a reweighted population according to the number of H-2B individuals assigned in the ACS who entered in 2023.*

**J cultural exchange visitors.** The following groups are considered J visa holders: (1) immigrants in the ACS living in the U.S. as au pairs ages 19 to 30 who arrived within the previous three years; (2) secondary school students ages 16 to 18 who arrived within the previous two years; and (3) physicians, professors, and other academics who arrived within the previous three years. The resulting population estimate is considerably smaller than DHS estimates; it is assumed that the majority of J visa recipients are not captured in the ACS since they remain in the U.S. for a year or less.

*Since the J visa is temporary and holders are meant to return to their country of origin after a certain number of years, no adjustments were made in projecting the population to 2023.*

**L intracompany transferees.** Immigrants in the ACS older than 21 who entered the U.S. in 2016 or later, have a high school diploma or higher education, and work in managerial/chief executive occupations according to Department of Labor data, are considered L visa holders. Resulting L visa population estimates are in line with Department of State visa approvals for nonimmigrant L visas.

*Since the L visa is temporary and holders are meant to return to their country of origin after a certain number of years, no adjustments were made in projecting the population to 2023.*

**O extraordinary ability workers and P athletes.** Immigrants in the ACS who work in entertainment or professional sports industries who entered the U.S. in 2016 or later are considered O or P visa holders.[9]

*Since the O and P visas are temporary and holders are meant to return to their country of origin after a certain number of years, no adjustments were made in projecting the population to 2024.*

**R religious workers.** Immigrants in the ACS working in religious professions with some college or higher education who entered the U.S. in 2016 or later are considered R visa holders.

*Since the R visa is temporary and holders are meant to return to their country of origin after a certain number of years, no adjustments were made in projecting the population to 2024.*

**TN professionals.** Immigrants in the ACS who work in professional occupations, hold a bachelor's degree or higher, were born in Canada or Mexico, and entered the U.S. in 2016 or later, are considered TN visa holders.

*Since the TN visa is temporary and holders are meant to return to their country of origin after a certain number of years, no adjustments were made in projecting the population to 2024.*

**Nonimmigrant dependents.** Spouses and dependent children (less than 21 years old) of nonimmigrant visa holders identified in the preceding list, according to similar conditions (for example, places of birth, year of entry), are considered nonimmigrant dependents, with the exception of H-2A and H-2B visa holders, who are not permitted to have dependents accompany them.

*Population projection weights projecting the population to 2024 were included only for dependents of international students, OPT participants, and H-1B visa holders, reweighting the population to represent a doubling of the number entering the U.S. in 2024.*

The resulting total nonimmigrant population estimate in the ACS, according to broad categories, is similar to that provided by DHS.

# Undocumented Immigrants

The number of undocumented immigrants is the residual of *lawful* immigrants—U.S. citizens, LPRs, and nonimmigrants assigned above—from the *total* number of immigrants living in the U.S., per the 2023 ACS, after initial population reweighting for potential undercounting.

The residual method of estimating the number of undocumented immigrants is similar to other research and policy organizations, including the Pew Research Center and the Migration Policy Institute.

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9    The resulting estimates of O and P visa holders is likely underestimated slightly as this visa option is being increasingly used by STEM professionals.

Conventionally, immigrant respondents not assigned a lawful immigration status are considered undocumented individuals.[10]

According to our methods, the total number of undocumented immigrants estimated to live in the United States *in 2023* that do not take into account most recent arrivals since 2021, not reflected in the 2023 ACS, is comparable to the 11-plus million undocumented immigrants living in the U.S. estimated by other research organizations.[11]

In projecting the size of the total undocumented population forward to September 30, 2024, new arrivals entering the U.S. across the U.S. southern border or paroled into the U.S. are considered. Not every immigrant encounter recorded by CBP results in the individual remaining in the U.S. Accordingly, estimates of new border arrivals in 2024 that would be part of the undocumented population are adjusted by the rates of parole, releases, or Notices to Appear (NTA) by nationality and demographic group per Syracuse University's Transactional Records Access Clearinghouse (TRAC) data. These figures showing recent "inadmissibles" at ports of entry and encounters by border patrol allow researchers to have a reliable estimate of the number of people entering through these pathways and are likely living in the United States.[12] Additionally, DHS reports on the size and demographic composition of those paroled into the U.S. are also used, including those from Afghanistan and Ukraine, as well as individuals paroled into the U.S. using the CBP One App and the Cuba-Haiti-Nicaragua-Venezuela (CHNV) parole policy.

*This combined population of new arrivals through these immigration pathways in 2024 was added to the 2023 ACS data as upward population weighting adjustments to those who entered the U.S. in 2022 or later according to nationality and age (adult vs. minor child) among those classified as undocumented in the 2023 ACS assignment phase. Doing so increases the total immigrant population, and more specifically the number of undocumented individuals, to be more representative of the actual 2024 undocumented population.*

Several groups within the traditionally understood undocumented population are actually protected from deportation. These groups are listed in the next section. The remaining individuals are considered undocumented immigrants without protections, or the "unprotected" population.

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10  Other research organizations estimate the size of the undocumented immigrant population by first calculating the total LPR and nonimmigrant populations. The estimates for the lawful immigrant population are computed using DHS data and employ demographic projection models, including varying emigration rates. A recent study indicates that the resulting size of the undocumented immigrant population can vary considerably based on different emigration rate assumptions for the lawful immigrant population. Consequently, an assignment strategy, as opposed to an LPR population target, can be just as reliable. Nonetheless, the resulting LPR population using an assignment strategy is within the bounds of previous research group estimates for the current LPR population living in the U.S., including those estimated by other research groups.

11  In addition to the overall adjustment for undercounted immigrants in the ACS mentioned earlier, undocumented immigrants within the farm workforce are also upwardly adjusted because these workers are largely out of reach of surveys like the ACS. This adjustment is based on U.S. Department of Labor studies showing that up to half of farmworkers are undocumented immigrants.

12  Release rates and resulting total estimates of individuals entering the U.S. via the southwest border, both for encounters at ports of entry and by U.S. Border Patrol, are very similar to those provided by DHS in their tables, yet not differentiated by demographic group and nationality. Using TRAC data enables a breakdown by age (adult vs. minor), release rate into the U.S., and nationality.

# Protected Statuses

Several conventionally understood undocumented groups whose long-term status is precarious have lawful protections, such as Temporary Protection Status (TPS) holders, Deferred Action for Childhood Arrivals (DACA) recipients, those in the process of adjusting to LPR status, and people seeking asylum. Other quasi-protected groups include those with parole, or those in the process of adjusting to a nonimmigrant status (for example, U or T visas) or an adjustment to permanent residency based on strict criteria in their undocumented status (for example, Special Immigrant Juvenile Status — SIJS).

An undocumented individual can have multiple protected statuses, such as TPS and parole, or parole and seeking asylum. For analysis that requires a mutually exclusive assignment of protected immigration status, assignment was performed by the order of protected statuses listed below. Protections listed were effective as of September 3, 2024, the same date for population targets used to calculate the estimates.

**TPS.** Respondents likely to have TPS status include several hundred thousand immigrants from certain countries like El Salvador and Honduras that have had TPS for many years as well as several hundred thousand from countries like Venezuela and Haiti with more recent TPS designations, all based on TPS holder population figures from the Congressional Research Service as of September 30, 2024. Undocumented immigrants eligible for this protected status by their country of birth and their entry date into the U.S. are assigned TPS status. Sometimes a larger number of immigrants in the ACS data meets this group criteria than administrative figures indicate. In these cases, immigrant respondents meeting TPS criteria by year of arrival and nationality are randomly assigned. Spouses and children of adult TPS holders without status who also qualify for TPS are assumed to also have TPS.

**DACA.** Based on an executive order published by President Obama in 2012 and a Final Rule submitted by the Biden administration in 2022, DACA allows those with certain criteria who entered the U.S. as children, but have no current lawful status, to apply for protection from deportation. The DACA population estimate is based on the annual number of valid DACA recipients reported by USCIS as of 2024. Undocumented immigrants in the ACS eligible for DACA status by their entry date (before 2008), age (42 years old or younger as of 2023), education level (high school diploma or equivalent), or who are studying full time are assigned this status in the ACS data. Since a larger number of immigrants in the ACS data meet this group criteria than is indicated by the population target, immigrants are randomly assigned, with sex-specific population group targets for Mexican and non-Mexican DACA recipients in top recipient states of California, Texas, and another state combined group. People eligible for DACA and married to a DACA recipient are also assigned this status.[13]

**Special immigrant juvenile status (SIJS).** Undocumented juveniles who are subject to juvenile court proceedings for parental abuse, neglect, or abandonment can apply for permanent residency. This process can take many years for final approval and eventual granting of a green card; however, applicants are protected while waiting for application processing. Relying on data from USCIS for the number of

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13   A greater number of individuals would be eligible for DACA if the processing of new applications were permitted by the courts; however, like TPS, this potential eligibility is not included in the estimates.

recent approvals and pending applications for SIJS, as well as the number of approved applicants who have received an LPR visa in recent years, the current number of pending applications at USCIS and those in the LPR backlog is estimated, dating back to 2010. The resulting population target for those with an SIJS is randomly drawn from the undocumented population with no other protections among those who are 25 years old or younger, not living with their parents, entered the U.S. in 2017 or later, and entered the U.S. before they turned 21 years old. SIJS random assignments are targeted according to state and nationality distributions from this recent SIJS backlog report.

**Asylum seekers.** Undocumented immigrants in the 2023 ACS with a pending asylum claim were selected from the undocumented population by nationality, based on the nationality breakdown of pending defensive asylum application figures from TRAC. This nationality breakdown of asylum seekers is upwardly adjusted to the population totals for the combined number of affirmative and defensive asylum seekers with a pending decision.[14] When necessary, a random selection of undocumented immigrants in the 2023 ACS from these countries and entry date into the U.S. were assigned asylum-seeking status and extended to other family members in the household with the same entry year and nationality.

**Adjustment to nonimmigrant status.** Several undocumented immigrants who are witnesses to or victims of criminal activity (U visa) or victims of trafficking (T visa) and their immediate family members are protected from deportation and eligible for work authorization after applying for these visas. If approved, these nonimmigrant visa holders can apply for permanent residency after three years of continual residence in the U.S. The total population target for this group is based on the number of pending principal and derivative applications for these statuses, plus the cumulative approved applications in the past four years (the length of time these visas are granted and can later adjust to LPR under certain conditions).[15] ACS respondents potentially with a nonimmigrant U or T adjustment or pending application were randomly selected from the remaining pool of unprotected, undocumented individuals ages 15 years or older, along with immediate family members. Nationality and gender population targets for principals were set according to breakdowns of U visas in this USCIS report.

**Parole.** Between 2021 and 2024, hundreds of thousands of individuals were granted parole to enter the U.S. through administrative initiatives, including Operation Allies (Afghans), Uniting for Ukraine, Cuba-Haiti-Nicaragua-Venezuela (CHNV) policy, and the CBP One app process at the U.S. southern border's ports of entry. Estimates for these newly arrived, protected immigrants living in the U.S. are based on DHS reports, of which some demographic and nationality breakdowns are available. Population targets for paroled individuals living in the U.S. by nationality and age are based on the cumulative number of paroled individuals since 2021.

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14    As affirmative asylum cases at USCIS are not individuals, a multiplier of 1.34 extra derivative individuals for each principal was added to obtain the overall total of affirmative asylum individuals. This multiplier is based on research from TRAC that estimated the total pending asylum caseload across EOIR and USCIS.

15    Pending and approved derivative applications are multiplied by 1.5 to adjust the figures from cases to individuals. The multiplier is based on this USCIS report of U visa applicants.