

The Growth and Diversity of Older Undocumented Immigrants in the United States

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ABSTRACT The undocumented immigrant population in the United States is aging and diversifying by origin group. However, research on aging among undocumented immigrants focuses on Mexicans and Central Americans, even as this population declines, and less is known about other groups. We analyze residual estimates of the undocumented population and the 2018–2022 panels of the Survey of Income and Program Participation to document trends in age at arrival, duration in undocumented status, and socioeconomic and health correlates for undocumented immigrants across 27 countries or regions. We find dramatic increases in the older undocumented population across all origin groups, especially among those from Asia, the Caribbean, Europe, Canada, and Oceania. Aging in place drives population aging among the largest groups—those from Mexico, Central America, Venezuela, and India—while both aging in place and increases in arrivals at older ages are responsible for population aging among those from other origins. Additionally, undocumented status for older immigrants from most origins is associated with significant socioeconomic disadvantage regardless of age at arrival, but especially for those who age in place. This finding foreshadows rising inequality by legal status among America’s seniors as the most disadvantaged immigrant groups age in place in coming decades.

KEYWORDS Undocumented immigrants in United States • Aging in place • Older immigrants • Immigrant legal status and inequality • Survey of Income and Program Participation

Introduction

The older undocumented population in the United States has grown in the past two decades. In 2005, just over 10% of the undocumented population was older than 40, with almost none over the age of 65 (Passel 2005). Although consistent age comparisons are unavailable in published work, growth is evident: by 2018, 25% of the undocumented population was aged 45 or older, and 9% were 55 or older (Migration Policy Institute 2019). We show here that the undocumented population is likely to continue to age into the future while diversifying across origin groups with respect to age at arrival and expected duration spent in undocumented status. These patterns in timing and duration are important because they determine the stages of life that

undocumented immigrants live in the United States and have implications for the well-being of immigrants themselves and their family members. Research on the population dynamics of the older undocumented immigrant population in the United States has focused on the Latino population (Ro et al. 2022). Yet, over the last decade, the undocumented population has expanded to include a broader range of origins (Van Hook et al. 2023), and it is critical to understand the aging profiles of this newly diversifying population.

Until 2015, the majority of undocumented immigrants in the United States originated from Mexico (Passel and Krogstad 2023). This migration stream was initially characterized by a high degree of circularity, meaning that undocumented individuals were less likely to remain in the United States into older ages. Because of policy changes in the 1990s and 2000s, the costs and risks associated with undocumented migration increased, and this, in turn, curtailed return migration, leading to longer durations of stay (Massey et al. 2015). The Great Recession in the mid-2000s both reduced in-migration of younger Mexican undocumented immigrants to the United States and further reduced return migration among the population already here (Rendall et al. 2011). Altogether, a large portion of the Mexican undocumented population in the United States have “aged in place” and are less likely to be replenished by an influx of younger immigrants.

The changing age composition of the undocumented immigrant population in the United States is also driven by a shift in region or country of origin composition. Over the last decade and a half, the share of the undocumented population from Mexico has declined and a wider range of origins is represented among the undocumented (Van Hook et al. 2023). Each origin group has unique factors impacting migratory patterns, including age distribution at migration, duration of time spent in undocumented status, pathways to legalization, and propensity for return migration. For example, there has been an increase in undocumented immigrants from Central America and Venezuela fleeing adverse humanitarian and economic conditions (Massey 2020). These undocumented individuals are less likely to return voluntarily and, therefore, are likely to contribute to a growing population “aging in place.” On the other hand, some origin groups are characterized by a high rate of undocumented migration at older ages. We speculate that many individuals who migrate in older adulthood do so to reunify with family members, either seeking the support of adult children who migrated before them or to provide caregiving for their grandchildren.

Migration patterns such as age at arrival and duration in undocumented status have implications for the well-being of immigrants themselves and their family members. Research has focused on the general immigrant population, and it is unclear how outcomes may differ for undocumented immigrants. In terms of social mobility, longer duration or earlier age at arrival is usually thought to be related to better socioeconomic outcomes, with immigrants’ income increasing with time in the U.S. labor market (Duleep et al. 2022). On one hand, there is evidence that this wage growth may not occur for undocumented immigrants who do not have legal work permits and therefore do not have access to the same wage structure and legal protections as immigrants with legal status (Hall et al. 2010). On the other hand, there is evidence that immigrants with low educational attainment, which is overrepresented among the undocumented, may experience wage growth with time in the country as a result of selective return migration: individuals who are unable to secure jobs may return

to their country of origin (Kaushal et al. 2016). Among the overall immigrant population, previous research has found that disparities in lifetime earnings and job benefits contribute to reverse economic assimilation in older adulthood (Ye 2024). This situation may be extenuated for older undocumented immigrants owing to exclusion from universal social welfare programs like Social Security and Medicare, which historically increased older adult socioeconomic well-being and health status (Morales 2021).

The relationship between health and duration in undocumented status or age at arrival is less certain than that of social mobility, even among the general immigrant population (Markides and Rote 2019). For undocumented immigrants, health may deteriorate more quickly over time because of exposure to heightened stress, limited health insurance coverage and preventative health care, and vulnerability to hazardous work conditions due to employment in an unregulated labor market (Cheong and Massey 2019). It is also unclear how return migration plays a role in the health status of the general population of older immigrants: among Mexican immigrants, having fewer activities of daily living limitations is associated with return migration (Sheftel 2024), but having more health limitations and greater stress is associated with a greater likelihood of return, and there is limited evidence of health-selective return for chronic conditions or self-reported health (Diaz et al. 2016). With such mixed evidence of the direction of potential health-selective return, it is difficult to predict how return migration may differ by legal status.

Research on the population dynamics of the older undocumented immigrant population in the United States has focused on the Latino population (Ro et al. 2022). Since the share of the undocumented population from Mexico and Central America has decreased in the last 15 years and the share from most other regions around the globe has increased (Van Hook et al. 2023), it is critical to understand the underlying population dynamics and migration patterns of a more diverse set of countries and regions of origin. This article fills this gap by documenting age at arrival, duration in undocumented status, and socioeconomic and health correlates of these migratory patterns across 27 countries or regions.

Methods

Data on Undocumented Immigrants

To assess the aging of the undocumented immigrant population, we first created estimates using the long-standing residual method.¹ Briefly, this method generates estimates of the aggregate number of undocumented immigrants by age, sex, year of birth, year of entry, and country or region of birth for 27 different countries or regions. The estimates are made by subtracting the number of immigrants with a legal status from the total number of immigrants in 2000–2023 using U.S. Census Bureau American Community Survey (ACS) data (Ruggles et al. 2022).

¹ This method was described in *Demography* in 2021 (Van Hook et al. 2021), and we provide a slightly updated description in online Appendix 1.

We classified foreign-born individuals as having legal status if they (1) were admitted with Lawful Permanent Residence (LPR) from 1982 on (including naturalized citizens), (2) were approved to enter with a humanitarian status but have not yet attained LPR, (3) are nonimmigrants on work or student visas (e.g., international students, H-1B high-skilled workers, and H-2A agricultural workers), or (4) they entered the country before 1982.² Nonimmigrants (group 3) can be identified indirectly by their characteristics in the ACS, and pre-1982 arrivals (group 4) can be identified directly. The numbers of individuals with an LPR status (group 1) or with a humanitarian status (group 2) are estimated by totaling all legal admissions in every year since 1982—using U.S. Department of Homeland Security and State Department administrative records—and then reducing these numbers to account for deaths and emigration (Leach 2015; Schwabish 2011) of those individuals.

We estimated the number of undocumented immigrants by subtracting the number of immigrants with a legal status from the total number of immigrants in the ACS (Ruggles et al. 2022), and then adjusted the estimates upward to account for undercount of undocumented immigrants in the ACS. We also smoothed the estimates across years within entry cohorts to account for heaping in year-of-arrival reporting. The resulting estimates include individuals who entered the country without inspection and those who arrived with a temporary visa (e.g., student visa) but overstayed or otherwise violated the terms of their visa. Estimates also include a rapidly growing group of individuals with “liminal” status who received an official, temporary reprieve from deportation but whose status could easily be revoked: individuals with Temporary Protected Status, those covered under Deferred Action for Childhood Arrivals, those on parole,³ and those with pending asylum applications. Additional details on the methodology used to estimate the number of undocumented immigrants are included in online Appendix 1.

Aging Among Undocumented Immigrants

The residual estimates just described are counts of the undocumented immigrant population for each birth and entry cohort for 27 different countries or regions, for each year from 2000 to 2023.⁴ These data permit us to directly estimate the age composition of undocumented immigrants. For example, the share aged 50 or older is simply the number of individuals aged 50 or older divided by the total undocumented population.

² We assume that all pre-1982 arrivals have legal status because they were eligible for amnesty under the Immigration Reform and Control Act of 1986.

³ These immigrants have temporary permission to enter and stay for urgent humanitarian reasons or significant public benefit, at the discretion of the Secretary of Homeland Security. A recent example were the Cubans, Haitians, Nicaraguans, and Venezuelans admitted temporarily by the Biden administration's CHNV program.

⁴ The ACS was not implemented at full scale until 2005, and the 2020 ACS was found to be of low quality owing to difficulties in data collection during the first year of the COVID-19 pandemic, leading the U.S. Census Bureau to issue warnings about its use (Villa Ross et al. 2021). We therefore dropped all ACS estimates based on 2001–2004 and 2020 ACS data and linearly interpolated the size of each cohort between 2000 and 2005 and between 2019 and 2021.

We also used the data, together with life table methods, to model age at arrival and the expected share that will age in place. We originally developed these methods to examine the dynamics and demographic impact of the unauthorized foreign-born population (Van Hook 2024), but we apply them here to examine population aging. The methodology involves (1) estimating the annual components of change (inflow, death, and outflows) by country/region of birth, age, sex, and duration; (2) using the components of change to produce life tables by country/region, age at arrival, and sex; and (3) using the life tables to produce estimates of older age at arrival and aging in place.

Components of Change

To estimate the components of change for the undocumented foreign-born population, we reshaped the residual estimates data into birth and entry cohorts for each country/region of birth, whereby each cohort is followed over time from 2000 (or the year of entry of the cohort if it arrived after 2000) to 2023. For groups with few visa overstayers, entry cohorts typically grow quickly in their first year in the country, signifying the entry of new arrivals, as shown in panel a of Figure 1 for Mexicans who arrived in 2005. The cohort declined starting around the second year of residence. The pattern differs for groups with large numbers of visa overstayers. Visa overstayers originally enter the country legally on nonimmigrant visas but fall out of status later, typically after six to eight years; this is depicted for Indians who arrived in 2005 (panel b). From the first to the ninth year, the cohort grew slowly as visa overstayers joined the undocumented immigrant population. After the ninth year, the cohort declined as members died, were legalized, or moved away.

We analyzed changes in the size of each birth and year-of-entry cohort to infer the components of change, that is, entries and exits. Entries into the undocumented population include new arrivals and likely visa overstays. We estimated the number of new arrivals as the growth in the size of the cohort during its first full year in the country, and the number of likely visa overstays as the additional positive growth in the cohort (after accounting for deaths) between its second and tenth year in the country. If there was no additional growth in the cohort (i.e., the cohort declined), the number of visa overstays was assumed to be zero. Conversely, if the additional growth was greater than our ACS-based estimate of visa overstayers for the group,⁵ we reduced the estimate to match the ACS-based estimate.⁶ Exits from the population included deaths, legalizations, and return migration. We estimated the number of deaths by multiplying the number of person-years lived in each cohort by age- and sex-specific foreign-born death rates (see online Appendix 1). Note that deaths make up only a small share (6%) of the total outflows from 2000 to 2023. We did not have enough information to separate legalization from return migration, so we combined

⁵ See online Appendix 1 for more information about how we identify nonimmigrants in the ACS.

⁶ In spite of these calibrations, the number of likely visa overstayers is probably underestimated because some undocumented immigrants arrive on tourist visas. These visas expire after six months, so they would have become undocumented within their first year of residence and would therefore be classified as new arrivals in our estimates.

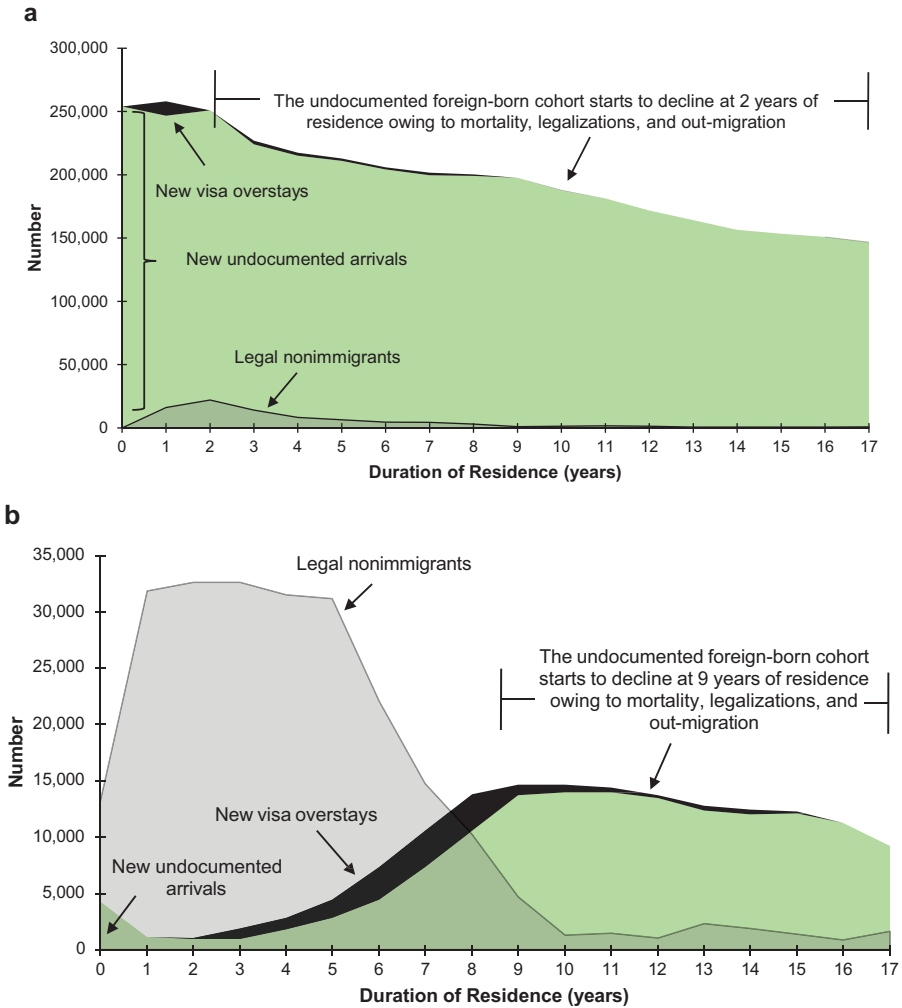


Fig. 1 (a) Cohort change among an undocumented group with few visa overstayers: Mexican 2005 arrivals aged 15–29. (b) Cohort change among an undocumented group with many visa overstayers: Indian 2005 arrivals aged 15–29.

them into a single indicator, net outflows, which were estimated as total net growth + deaths – new arrivals – visa overstays. Each component of change was expressed as a rate by dividing by the midyear population size.

Life Tables

We used the components of change estimates to create life tables. The life tables model the decline in the size of a synthetic cohort from entry into undocumented status until death, legalization, or return migration if the cohort experienced all current age- and duration-specific death and outflow rates. As an illustration, Table 1 shows

Table 1 Example life table of time lived in undocumented status among male Mexican immigrants who arrived at age 20, 2015–2022

Entries Into Undocumented Status (1,000s)					Outflows			PYs Lived in Interval, L_x (9)	PYs Lived Age x^+ , T_x (10)	Ave. PYs in Undocumented Status, e_u (11)
Age x (1)	Duration (2)	New Arrivals, $a_{u,x}$ (3)	Overstay temporary visa, $a_{o,x}$ (4)	All entries, a_x (5)	Number in Unauthorized Status, l_x (6)	Deaths, d_x (7)	Other outflows, f_x (8)			
20	0	55.8		55.8	55.8	0.1	6.2	58	1,584	23.1
21	1		10.8	10.8	60.4	0.3	1.1	241	1,526	
25	5		1.3	1.3	60.2	0.4	13.8	268	1,285	
30	10		0.7	0.7	46.8	0.4	6.3	217	1,017	
35	15				40.1	0.4	6.2	184	800	
40	20				33.5	0.5	7.7	147	616	
45	25				25.3	0.6	3.1	118	468	
50	30				21.7	0.6	6.5	91	351	
55	35				14.6	0.7	0.9	69	260	
60	40				13.0	0.9	1.0	60	191	
65	45				11.1	1.0	1.6	49	131	
70	50				8.4	1.2	1.2	36	82	
75	55				6.1	1.3	0.8	25	46	
80	60				3.9	1.6	0.5	15	21	
85	65				1.9	1.9	0.0	6	6	
Total Entries		55.8	12.7		68.5					

Note: PYs = person-years.

the life table for male Mexican immigrants who arrived at age 20–24, constructed from death and outflow rates averaged over the five-year period between 2015 and 2022. As shown in the first and second columns, each cohort enters the life table at their age at arrival. For simplicity, all are assumed to enter the country at the beginning of the age-at-entry category, and the cohorts are then followed over time as they age (column 1) and spend more time in the United States (column 2). New arrivals are added to the cohort in the first year of U.S. residence (column 3), while visa overstayers are added in subsequent years (column 4). Each cohort (column 6) initially grows as new arrivals and visa overstayers are added but then declines as some members die (column 7) or leave the undocumented population owing to legalization or out-migration (column 8). Finally, columns 9–12 present the expected duration lived by the cohort in undocumented status:

L_x = person-years in undocumented status within each age interval

$$(L_x = \frac{n}{2}(l_x + l_{x+n}); \text{column 9});$$

T_x = person-years in undocumented status from age x to the last age interval

$$(T_x = \sum_x^{85} L_x; \text{column 10}); \text{ and}$$

e_u = expected duration spent in undocumented status, averaged across all entries

$$(e_u = \frac{T_0}{\sum a_x}; \text{column 11}).$$

Older Age at Arrival and Aging in Place

Finally, we used the elements of the life tables to estimate measures of population aging. The share of undocumented entries who arrived at age 50 or older is obtained by dividing the number of entrants whose age at arrival is 50 or older by the total number of entrants:

$$\text{Share of older arrivals} = \frac{\sum a_x^{\text{arrived } 50+}}{\sum a_x}.$$

The share of entrants who are likely to age in place is obtained by dividing the number of entrants who aged into the 50+ age category by the total number of entrants:

$$\text{Share likely to age in place} = \frac{l_{50}^{\text{arrived } 0-49}}{\sum a_x}.$$

We produced the life table aging measures separately by gender and five-year age-at-arrival groupings and then averaged them, while weighting on cohort size, to create summary statistics for each country/region grouping. Many of our measures require estimates of population change from one year to the next, so our results pertain to the 2000–2001 to the 2022–2023 periods (i.e., 2000–2022).

To account for ACS sampling error, we estimated bootstrapped standard errors for all estimates across 500 iterations. The standard error of the estimates is the standard deviation across all iterations.

Characteristics of Older Undocumented Immigrants

We relied on the 2018–2022 panels of the Survey of Income and Program Participation (SIPP) to estimate the average years of schooling, poverty rate, and percentage with at least one functional limitation of the likely undocumented and likely documented foreign-born persons aged 50 or older. Likely undocumented immigrants were identified as noncitizens who reported that they did not arrive as a legal immigrant. We labeled this group as “likely” undocumented to acknowledge response and coverage error. Undocumented immigrants who participate in surveys are likely to be more integrated into U.S. society and have higher levels of education, lower poverty rates, and better health than nonparticipants. Therefore, our estimates provide conservative estimates of older undocumented immigrants’ disadvantages.

Because of SIPP’s sparse sample sizes, we used combined-sample-multiple-imputation (CMSI) to increase statistical power (Capps et al. 2018), whereby we pooled the five-year 2022 ACS (i.e., 2018–2022) with the SIPP data and multiply imputed documentation status for noncitizens aged 50+ in the ACS ($N=876,620$). Under conditions met here,⁷ CMSI has been shown to yield unbiased estimates of the characteristics of undocumented immigrants.

Results

Recent Trends in Population Aging

Over the past two decades, the undocumented immigrant population in the United States has become older across all regions of origin. Panel a of Figure 2 depicts the share of all undocumented immigrants who are aged 50 or older by region of origin. For comparison, we plot Mexico separately. The bold black line shows that the percentage of *all* undocumented immigrants who are aged 50 or older increased from about 3% in 2000 to 23% in 2022. The change over the past 20 years varies widely across regions. For example, in 2000 the percentage of undocumented immigrants 50 or older among those from Africa and Central America was close to zero and by 2022 it was about 12% and 9%, respectively. Those 50 or older made up a greater portion of the undocumented from South America (6%), Asia (6%), and the Caribbean (9%) already in 2000, and by 2022 the share had increased to about a quarter among those from South America (23%) and close to a half for those from Asia (46%) and the Caribbean (42%). A considerable portion (18%) of undocumented immigrants from

⁷ CMSI depends on meeting the same-universe assumption, whereby both the ACS and SIPP datasets are drawn from the same universe. This condition is met because both SIPP and ACS are representative of the U.S. population in 2018–2022. CMSI also depends on “joint observation,” meaning that all factors used in the analysis, apart from immigration status, must be observed in both the ACS and SIPP. The imputation model was informed by age, age squared, sex, educational attainment, poverty, income, receipt of public benefits (Social Security income, Supplemental Security Income, and public health insurance), and the interaction of age with the receipt of public benefits, and all these factors are observed in the SIPP and ACS.

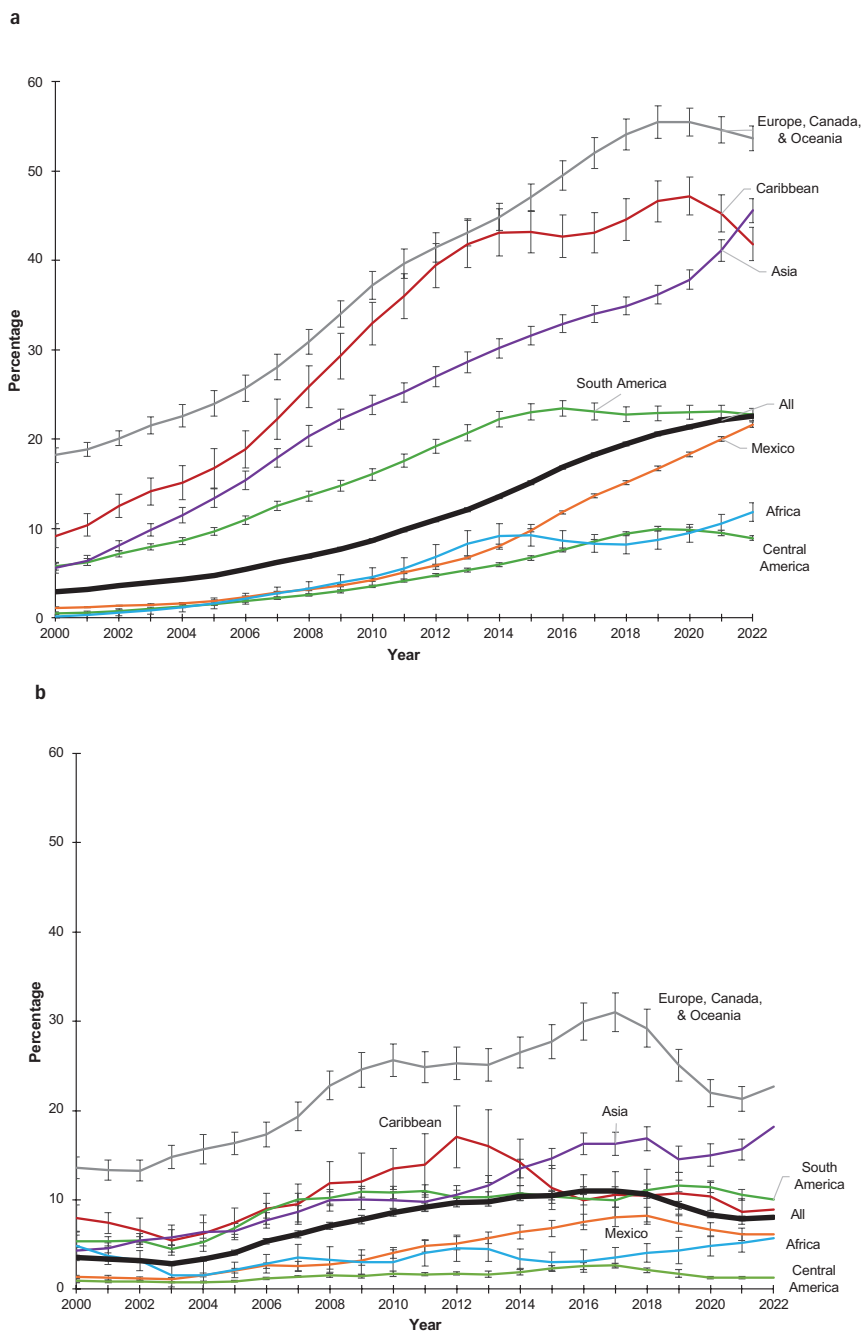


Fig. 2 (a) Percentage of total undocumented immigrants aged 50+, by region of origin, 2000–2022 (three-year moving averages). (b) Percentage of total undocumented immigrants aged 50+ when they migrate, by region, 2000–2022 (three-year moving averages).

Europe, Canada, and Oceania were aged 50 or older in 2000, and this group grew to more than 50% by 2022.

Increases in the age at arrival may help explain population aging for some groups. Panel b of [Figure 2](#) shows the percentage of all undocumented immigrants who arrived at age 50 or older by region, with comparisons for the entire undocumented population and for Mexico specifically. The portion of older (50+) arrivals among undocumented immigrants from Europe, Canada, and Oceania increased from 14% to 23% in the period. Likewise, among Asians, the share of older arrivals increased from 4% in 2000 to 18% in 2022. Older arrivals from South America and the Caribbean increased as well over the period, albeit more modestly. Nevertheless, the share of older arrivals remained low for the largest national origin groups: those from Mexico and Central America. Across the time frame, between 1% and 3% of those from Central America arrived at 50 or older, and by 2022 only 6% of undocumented immigrants from Mexico arrived at age 50 or older.

Because of the large numbers of undocumented immigrants from Mexico and Central America, they drive the aging patterns of the overall undocumented population. For all origins combined (bold line in panel b of [Figure 2](#)), the share of undocumented immigrants arriving at age 50 or older has increased relatively slowly over the past 20 years, from about 4% to 8%, which is insufficient to explain the 23-percentage-point increase in the share of the undocumented population that is aged 50 or older. Instead, the aging in place of undocumented immigrants, who arrived at younger ages, explains the growth in the undocumented older population as a whole.

Potential for Aging in Place: Age at Arrival and Duration in Undocumented Status

Age at arrival and expected duration in undocumented status together determine whether immigrants enter older adulthood with an undocumented status. For example, among individuals who arrive in childhood or early adulthood, groups with short durations spent in undocumented status are less likely to reach older adulthood as undocumented immigrants than those with long durations. [Figure 3](#) illustrates specific countries by age at arrival *and* expected durations, averaged from 2015 to 2022 (see online Appendix 2). To the extent possible, we plotted individual countries (with smaller countries grouped together into regions) instead of the region groupings plotted in [Figure 2](#) because combining countries would mask heterogeneity in terms of the size of the undocumented flow and age at arrival by duration. The area of each circle indicates the size of the undocumented population from that country/region ([Table 2](#), column A). To assess age at arrival and duration patterns simultaneously, we divided the figure into quadrants: duration is split at the overall mean of 12.4 and age at arrival is split at age 35. Only about one third of international migrants arrive in the United States at this age or older.⁸ We then categorized countries by quadrant: (1) young arrivals with long durations (blue), (2) middle-aged arrivals with short durations (orange), or (3) older arrivals (with shorter durations owing to their shorter remaining life expectancy) (green). Summary statistics for these groups are shown in

⁸ Analysis of ACS 2005–2022 data.

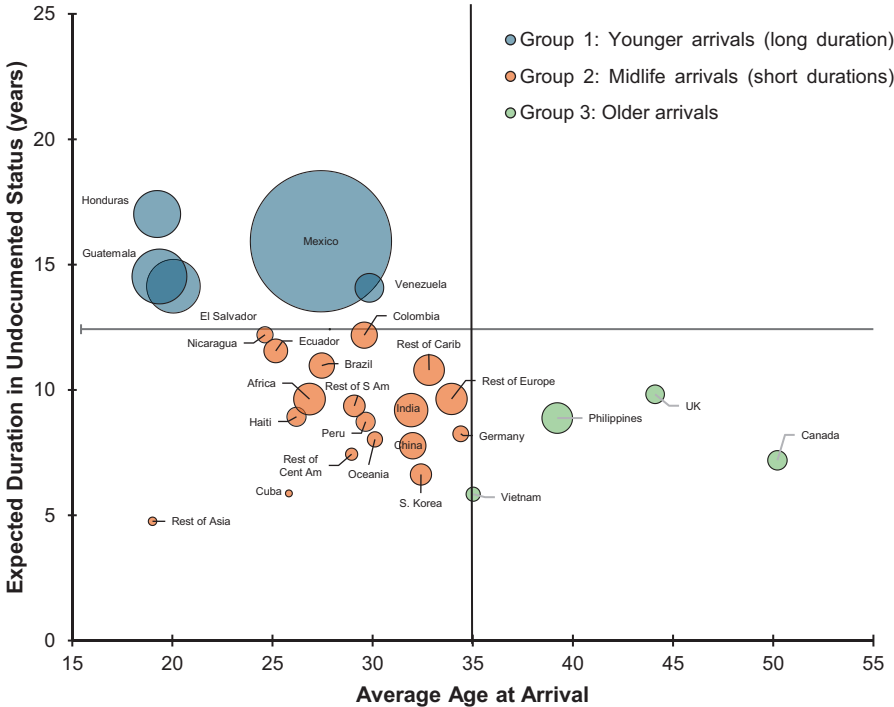


Fig. 3 Average age at arrival and expected duration in undocumented status, 2015–2022. The y-axis is split by mean expected duration of undocumented status (12.4 years) for all countries. The x-axis is split at arrival age 35; two thirds of immigrants arrive by this age. The area of the circles is proportional to the population size of the group.

Table 2, with columns E and F presenting estimates by group for age at arrival and duration in undocumented status.

The first group (blue), *young migrants with long expected durations in undocumented status*, is clustered in the upper left-hand quadrant of Figure 3 and comprises three Central American countries (Guatemala, El Salvador, and Honduras), Mexico, and Venezuela. Currently, while only 14.3% (Table 2, column C) are aged 50 or older, we expect this group to age in place in coming decades. On average, they arrive at age 24.5 and remain undocumented for 15.5 years (Table 2, columns E and F), with a total of 32.2% of new annual entrants being expected to reach age 50+ while in undocumented status (Table 2, columns G + H). Most of the expected aging of this group will be due to aging in place—that is, only 5.6% arrived at ages 50+, and the remaining 26.5% expected to reach 50+ while undocumented will age in place. This large group makes up 71% of the undocumented immigrants living in the United States.

The second group (orange), *midlife arrivals with short expected durations in undocumented status*, is clustered in the lower left-hand quadrant and lower center of Figure 3. Already, 29.7% are aged 50 or older and will remain at this level in coming decades because 26.9% of new entrants are expected to arrive at age 50 or older (10.2%) or reach age 50 in undocumented status (16.7%). This group includes individuals from a diverse set of origins—Caribbean countries, most South American

Table 2 Current undocumented immigrant age structure and annual entrants' likelihood of aging in place, 2015–2022

	Current Undocumented Immigrant Age Structure			Annual Undocumented Entrants' Likelihood of Aging in Place				
	Ave. Pop. Size (1,000s) (A)	Age 50+ Pop. (1,000s) (B)	% Age 50+ (C)	Annual Entrants (1,000s) (D)	Average Age at Arrival (E)	Duration in Undocumented Status (years) (F)	% Arrived Age 50+ (G)	% Expected to Age in Place (arrived before age 50) (H)
All Countries and Regions	12,865 (24)	2,592 (11)	20.1% (0.1%)	510 (2.80)	27.9 (0.055)	12.4 (0.16)	9.5% (0.08%)	21.4% (2.85%)
Group 1: Younger Arrivals, Long Duration	9,197 (16)	1,311 (7)	14.3% (0.1%)	279 (2.24)	24.5 (0.07)	15.5 (0.31)	5.6% (0.09%)	26.5% (3.16%)
Group 2: Midlife Arrivals, Short Duration	3,053 (17)	907 (8)	29.7% (0.2%)	207 (1.69)	29.5 (0.09)	9.7 (0.11)	10.2% (0.13%)	16.7% (3.58%)
Group 3: Older Arrivals	615 (8)	374 (4)	60.9% (0.6%)	24 (0.47)	42.4 (0.28)	8.4 (0.17)	34.7% (0.51%)	14.7% (7.19%)

Notes: Standard errors are shown in parentheses. Estimates are provided for the three groups in Figure 3. Group 1 includes Mexico, El Salvador, Honduras, Guatemala, and Venezuela. Group 2 includes countries and regions not in Groups 1 and 3. Group 3 includes Canada, the United Kingdom, Vietnam, and the Philippines. The left panel uses residual estimates to gauge the annual average undocumented population total size (A), the number age 50+ (B), and the percentage age 50+ (C) from 2015 to 2023. Column C = column B divided by column A. The right panel uses life tables to estimate average age at arrival for annual undocumented entrants from 2015 to 2022 shown in column D. Columns E–H refer to annual entrants in column D.

countries, Africa, Oceania, some Central American countries, and some Asian and European countries—who are likely to be a mixture of asylum seekers (e.g. Haiti) awaiting decisions on their cases, visa overstayers who have not yet regularized their status, and labor migrants engaged in circular migration. This moderately sized group makes up 24% of undocumented immigrants.

The third group (green) is those who *arrive at older ages and have relatively short expected durations in undocumented status*. They are located in the lower right-hand quadrant of Figure 3. On the far end with the oldest ages at arrival are immigrants from Canada, followed by immigrants from the United Kingdom, the Philippines, and Vietnam. Currently, 60.9% are aged 50 or older. This group will continue to contribute to the aging of the undocumented population owing to their older age at arrival. Among new entrants, 34.7% arrive at age 50+, while only 14.7% arrive at young ages and age in place. This is a relatively small group, currently making up only 5% of all undocumented immigrants.

Health and Socioeconomic Correlates

To understand how the socioeconomic and health correlates of age at arrival differ by documentation status, Table 3 presents age- and sex-adjusted average years of schooling, poverty rate, and percentage with at least one functional limitation of likely undocumented (hereafter referred to as undocumented) and likely documented (hereafter referred to as documented) foreign-born persons aged 50 or older. For comparison, estimates for the U.S.-born population are at the top of each panel of Table 3.

Comparing all documented and undocumented immigrants (Table 3, columns A and B), the undocumented have significantly fewer years of schooling and higher poverty rates (where indicated by a superscript a); this is evident for nearly all regions of origin (there is no significant difference in education among South Americans). Documentation status is not associated with the share of individuals with functional limitations.

A comparison by age at arrival within documentation status provides insight into the differential impact of the U.S. experience. Pairwise significant differences ($p < .05$) are indicated by a superscript corresponding with the column letter. Among documented immigrants (comparing columns C and D), aging in place is consistently associated with advantages: more years of schooling and a lower likelihood of poverty and functional limitations. Schooling and poverty advantages for those aging in place are seen for almost all regions of origin, but their advantages in functional limitations are significant only for Asians, Europeans/Canadians/Oceanians, and Africans. Overall, this suggests that among documented immigrants, aging in place confers socioeconomic benefits and (for some origin groups) health benefits, while arrival in older adulthood may be negatively selected on these same factors.

For undocumented immigrants (comparing columns E and F), we find no consistent evidence of an aging-in-place benefit. More often we observe nonsignificant differences by age at arrival. When a significant difference is evident, we largely observe disadvantages among those who aged in place. For undocumented immigrants from all regions combined, those who aged in place have fewer years of schooling (9.4) than those who arrived at ages 50 or older (10.4), although we see the opposite pattern

Table 3 Years of schooling, percentage living in poverty, and percentage with a functional limitation, by region of birth, likely immigration status, and age at arrival, among foreign-born individuals aged 50+, 2018–2022 (adjusted for age and sex)

	Documented				Undocumented	
	Documented (A)	Undocumented (B)	Documented		Undocumented	
			Arrived 50+ (C)	Aged in Place (D)	Arrived 50+ (E)	Aged in Place (F)
Average Years of Schooling (U.S.-born = 13.5 years)						
All	11.8	10.0 ^a	11.3 ^{def}	11.9 ^{ef}	10.4 ^{cd}	9.4 ^{cde}
Mexico	8.2	7.0 ^a	7.6 ^{def}	8.3 ^{def}	6.8 ^{cd}	7.2 ^{cd}
Central America	9.4	7.1 ^a	8.7 ^{def}	9.5 ^{def}	7.5 ^{cd}	6.8 ^{cd}
Caribbean	11.9	10.3 ^a	10.9 ^d	12.0 ^{ef}	10.3 ^d	10.4 ^d
South America	12.6	12.3	12.5 ^d	12.7 ^{ef}	12.4	12.1 ^d
Asia	13.1	11.2 ^a	11.7 ^{def}	13.3 ^{ef}	11.2 ^{cd}	11.1 ^{cd}
Europe/Oceania/Canada	13.9	13.3 ^a	14.2 ^{def}	13.8 ^{ef}	13.3 ^{cd}	13.3 ^{cd}
Africa	13.4	10.3 ^a	11.8 ^{de}	13.7 ^{ef}	10.0 ^{cd}	11.2 ^{de}
Percentage in Poverty (U.S.-born = 10.9%)						
All	12%	25% ^a	17% ^{def}	11% ^{ef}	23% ^{cd}	27% ^{cd}
Mexico	15%	26% ^a	17% ^{def}	15% ^{ef}	21% ^{cd}	29% ^{cde}
Central America	13%	29% ^a	13% ^{ef}	13% ^{ef}	26% ^{cd}	31% ^{cd}
Caribbean	16%	27% ^a	19% ^{def}	15% ^{ef}	25% ^{cd}	33% ^{cd}
South America	11%	22% ^a	15% ^{def}	10% ^{ef}	22% ^{cd}	22% ^{cd}
Asia	11%	20% ^a	15% ^{def}	10% ^{ef}	18% ^{cd}	27% ^{cde}
Europe/Oceania/Canada	9%	28% ^a	17% ^{de}	8% ^{ef}	31% ^{cd}	21% ^{de}
Africa	13%	29% ^a	17% ^{def}	12% ^{ef}	24% ^{cd}	45% ^{cde}
Percentage With at Least One Functional Limitation (U.S.-born = 26.2%)						
All	19%	23%	21% ^d	19% ^{ef}	21%	25% ^d
Mexico	23%	25%	22%	23%	23%	27%
Central America	22%	28%	21%	22%	25%	31%
Caribbean	21%	26%	21% ^f	21% ^f	24%	31% ^{c,d}
South America	17%	16%	17%	17%	15%	19%
Asia	18%	20%	22% ^d	17% ^e	20%	22%
Europe/Oceania/Canada	17%	19%	19% ^d	16% ^e	18%	20%
Africa	19%	23%	21% ^d	18% ^{e,e}	22% ^d	25%

Notes: Likely immigration status was measured in the SIPP and imputed in the ACS using cross-sample multiple imputation. All estimates are adjusted for age and sex. Superscripts indicate the significance of group differences based on two-tailed *t* tests (*p* < .05) with letters associated with the corresponding column letters.

Sources: SIPP and ACS, 2018–2022 (*N* = 876,620).

for undocumented Africans. Additionally, undocumented immigrants from Mexico, Asia, and Africa who aged in place tend to have higher poverty rates than those who arrived in the United States at 50 or older, although we see the opposite pattern for undocumented immigrants from Europe, Oceania, and Canada. There are no significant differences in functional limitations by age at arrival for undocumented immigrants.

Finally, undocumented immigrants who aged in place tend to be the most socioeconomically disadvantaged of the four documentation status and age-at-arrival groups (comparing across columns C to F). In comparison to the other three age-at-arrival and documentation status groups, undocumented immigrants who aged in place have lower educational attainment among all origin groups combined and higher poverty rates among Mexicans, Asians, and Africans.

Discussion

We conducted research on population aging among U.S. undocumented immigrants from 27 countries or regions of origin and presented novel estimates of duration in undocumented status and the share expected to age in place. The results reveal dramatic increases in the older undocumented population across all origin groups, with particularly striking increases in the older population among undocumented immigrants from Asia, the Caribbean, Europe, Canada, and Oceania (Figure 2, panel a).

We also show that population aging among undocumented immigrants is being driven by different demographic processes for different groups. Undocumented immigrants from Mexico, Central America, and Venezuela (group 1 in Figure 3) are likely to age in place. Most in this group arrive in early adulthood and are likely to remain in undocumented status for many years. Although this group currently has a youthful age structure, low return migration rates and limited opportunities for legalization mean that 32.2% are either living as older undocumented adults now or will be within a few decades. In contrast, undocumented immigrants from Asia, Europe, Africa, and other regions (group 2 in Figure 3) tend to arrive in midlife and remain in undocumented status for relatively short durations; about a fifth are likely to age in place. Those from Canada, the United Kingdom, the Philippines, and Vietnam (group 3 in Figure 3) are much more likely to arrive in older adulthood and very few age in place. Overall, as the undocumented immigrant population has diversified beyond Mexico and Central America, those from newer origins have tended to arrive at older ages.

Despite these developments, undocumented immigrants from Mexico and Central America (group 1 in Figure 3) will likely dominate the older undocumented population in coming decades. This group is very large (roughly 9.2 million⁹) and comprises nearly three quarters of the undocumented population. A back-of-the-envelope calculation suggests that, even in the absence of new undocumented migration, group 1 will contribute roughly 2.9 million individuals (column A $\times$ (columns G + H) in Table 2) to the older undocumented population as it ages in place. The other two

⁹ This is the average annual size of the undocumented population from Mexico and Central America between 2015 and 2023. The current size of this population as of 2023 is even larger.

groups are much smaller. Our back-of-the-envelope estimates suggest that group 2 will contribute 821,000 individuals and group 3 will contribute 303,000 to the older undocumented population.

Our analysis of the correlates of these migratory patterns (Table 3) highlights the socioeconomic disadvantages faced by older undocumented immigrants, especially for those who age in place. Aging in place is associated with clear socioeconomic advantages for documented immigrants. But for undocumented immigrants, in cases where an age at arrival difference is found, aging in place is associated with fewer years of schooling and higher poverty rates. In fact, undocumented immigrants who age in place—the largest group of undocumented immigrants in the United States—are more socioeconomically disadvantaged than any other documentation status and age-at-arrival group. It is important to note that we identify legal status from SIPP by status at entry. This means that individuals who arrived without a green card but later adjusted to LPR are included among the “undocumented.” Therefore, the results show a conservative estimate of the undocumented population, and there is likely a greater difference between the documented and undocumented than evident here, with even worse outcomes for the undocumented.

These results have far-reaching implications. First, the observed growth in the share and number of older undocumented immigrants means that this socioeconomically vulnerable population will comprise a growing share of the older adult population in the United States. With this population being excluded from universal social welfare programs and with no path to legalization,¹⁰ the growth of this group may erode the historic advances seen in older adult well-being made by the implementation of Social Security and Medicare in the last century. Additional research projecting the size of the older undocumented population and its characteristics into the future is necessary to understand the magnitude of the potential impact. Second, the fact that the increase in the older undocumented population is driven by aging in place means that this group, who has lived a considerable portion of its life in the United States, likely has children and grandchildren who are U.S. citizens. Without access to retirement benefits or health insurance, undocumented older individuals will need financial and caregiving support from family members, which may hinder the socioeconomic mobility of the younger generation of American citizens.

It is important to consider the limitations of this analysis. First, estimates of age at arrival and duration undocumented are based on synthetic cohorts derived from cross-sectional data. This methodology enables us to extend research to include diverse immigrant origin groups not represented in longitudinal data but means that the results are sensitive to policy and economic changes that impact migratory behavior. For example, the estimated expected durations are based on past trends in out-migration and may not hold in the current enforcement context that aims to deport millions of undocumented immigrants. Second, results may be sensitive to assumptions underlying our residual estimates of the undocumented population, chiefly assumptions about foreign-born coverage error and emigration rates. We assessed the sensitivity of the results to these assumptions in online Appendix 3 and found the

¹⁰ Older undocumented individuals with children who are U.S. citizens are not eligible for legalization via family reunification because family reunification applies to beneficiaries who are outside the country and cannot have crossed irregularly into the country.

percentages aged 50+, arrived at age 50+, and expected to age in place to be fairly stable across both high (+50%) and low (−50%) coverage and emigration assumptions (see Appendix 3). Third, our estimates end in 2022 and do not include the most recent increase of entries at the United States–Mexico border. Accounting for more recent entries may change the age structure and estimated duration of the undocumented population, as well as the distribution of older immigrants by country and region of origin.

Notwithstanding these limitations, results point to legal status as a critical stratifying force in the well-being of older adults. With continued exclusion from social safety net programs and no pathway to legal status, individuals who have lived a large portion of their lives in the United States will be unable to age with dignity. On a societal level, the growth of the undocumented population aging in place will depress the socioeconomic well-being of older adults overall, as well as the well-being of the younger generation of individuals supporting them. ■

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References

- Capps, R., Bachmeier, J. D., & Van Hook, J. (2018). Estimating the characteristics of unauthorized immigrants using U.S. census data: Combined sample multiple imputation. *Annals of the American Academy of Political and Social Science*, 677, 165–179.
- Cheong, A. R., & Massey, D. S. (2019). Undocumented and unwell: Legal status and health among Mexican migrants. *International Migration Review*, 53, 571–601.
- Diaz, C. J., Koning, S. M., & Martinez-Donate, A. P. (2016). Moving beyond salmon bias: Mexican return migration and health selection. *Demography*, 53, 2005–2030.
- Duleep, H., Liu, X., & Regets, M. (2022). How the earnings growth of U.S. immigrants was underestimated. *Journal of Population Economics*, 35, 381–407.
- Hall, M., Greenman, E., & Farkas, G. (2010). Legal status and wage disparities for Mexican immigrants. *Social Forces*, 89, 491–513.
- Kaushal, N., Lu, Y., Denier, N., Wang, J. S.-H., & Trejo, S. J. (2016). Immigrant employment and earnings growth in Canada and the USA: Evidence from longitudinal data. *Journal of Population Economics*, 29, 1249–1277.
- Leach, M. (2015, April–May). *Recent innovations in the U.S. Census Bureau's method of estimating foreign-born emigration*. Paper presented at the annual meeting of the Population Association of America, San Diego, CA.
- Markides, K. S., & Rote, S. (2019). The healthy immigrant effect and aging in the United States and other Western countries. *Gerontologist*, 59, 205–214.
- Massey, D. S. (2020). The real crisis at the Mexico-U.S. border: A humanitarian and not an immigration emergency. *Sociological Forum*, 35, 787–805.
- Massey, D. S., Durand, J., & Pren, K. A. (2015). Border enforcement and return migration by documented and undocumented Mexicans. *Journal of Ethnic and Migration Studies*, 41, 1015–1040.
- Migration Policy Institute. (2019). Profile of the unauthorized population: United States. Retrieved from <https://migrationpolicy.org/data/unauthorized-immigrant-population/state/US>
- Morales, J. F. (2021). Aging and undocumented: The sociology of aging meets immigration status. *Sociology Compass*, 15, e12859. <https://doi.org/10.1111/soc4.12859>

- Passel, J. S. (2005). *Estimates of the size and characteristics of the undocumented population* (Report). Pew Hispanic Center. Retrieved from <https://www.pewresearch.org/wp-content/uploads/sites/5/reports/44.pdf>
- Passel, J. S., & Krogstad, J. M. (2023, November 16). *What we know about unauthorized immigrants living in the United States*. Pew Research Center. Retrieved from <https://tinyurl.com/2023-pew>
- Rendall, M. S., Brownell, P., & Kups, S. (2011). Declining return migration from the United States to Mexico in the late-2000s recession: A research note. *Demography*, 48, 1049–1058.
- Ro, A., Van Hook, J., & Walsemann, K. M. (2022). Undocumented older Latino immigrants in the United States: Population projections and share of older undocumented Latinos by health insurance coverage and chronic health conditions, 2018–2038. *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*, 77, 389–395.
- Ruggles, S., Flood, S., Goeken, R., Schouweiler, M., & Sobek, M. (2022). *IPUMS USA: Version 12.0* [Dataset]. Minneapolis, MN: IPUMS. <https://doi.org/10.18128/D010.V11.0>
- Schwabish, J. A. (2011). Identifying rates of emigration in the United States using administrative earnings records. *International Journal of Population Research*, 2011, 546201. <https://doi.org/10.1155/2011/546201>
- Sheftel, M. G. (2024). Return migration and disability by life course stage of return: Evidence against the salmon bias. *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*, 79, gbad171. <https://doi.org/10.1093/geronb/gbad171>
- Van Hook, J. (2024). Beyond stocks and surges: The demographic impact of the unauthorized immigrant population in the United States. *Population Development Review*, 50, 1369–1400.
- Van Hook, J., Gelatt, J., & Ruiz Soto, A. G. (2023, September). *A turning point for the unauthorized immigrant population in the United States*. Migration Policy Institute. Retrieved from <https://www.migrationpolicy.org/news/turning-point-us-unauthorized-immigrant-population>
- Van Hook, J., Morse, A., Capps, R., & Gelatt, J. (2021). Uncertainty about the size of the unauthorized foreign-born population in the United States. *Demography*, 58, 2315–2336. <https://doi.org/10.1215/00703370-9491801>
- Villa Ross, C. A., Shin, H. B., & Marlay, M. C. (2021, October 27). *Pandemic impact on 2020 American Community Survey 1-year data*. U.S. Census Bureau. Retrieved from <https://www.census.gov/newsroom/blogs/random-samplings/2021/10/pandemic-impact-on-2020-acs-1-year-data.html>
- Ye, L. Z. (2024). Latent cumulative disadvantage: U.S. immigrants' reversed economic assimilation in later life. *Social Forces*, 102, 1111–1133.

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