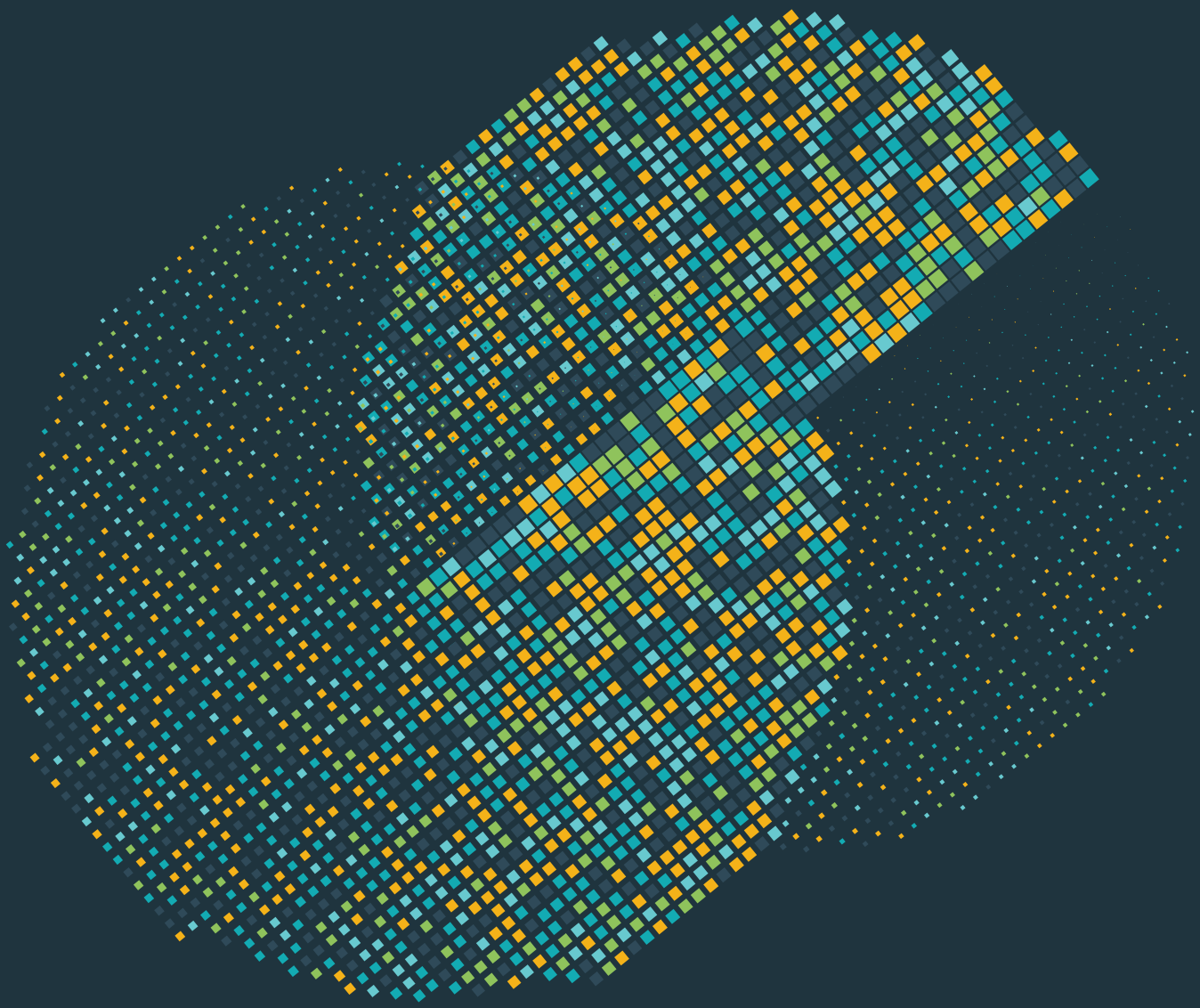
The Economic Impact of Immigration on the United States



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Foreword

In June 2017, several of the authors of this report, in partnership with the Massachusetts Technology Leadership Council (MassTLC) and the law firm Foley Hoag LLP, prepared a report compiling data and research on the impact of immigrants on the U.S. economy. Seeking to provide an evidence-based contribution to the national dialogue about immigration, the report presented a compendium of empirical evidence on the significant impact that immigrants have on economic growth, innovation, and entrepreneurship in the United States.

That 2017 report was included in amicus briefs submitted by MassTLC to the U.S. District Court for the District of Hawaii, the U.S. Court of Appeals for the Ninth Circuit, and the U.S. Supreme Court in *Trump v. Hawaii*, in support of the challengers seeking to overturn then-President Trump's executive order restricting travel and immigration to the United States from several Muslim-majority countries.

In 2024, the topic of immigration continues to be at the center of public debate in the United States. Motivated again by a desire to foster productive dialogue about immigration that is grounded in empirical evidence, we have updated the 2017 report with more recent data and research on immigrants in the United States and their contributions to our nation's economy.

This report reflects the contributions of many of our colleagues at Analysis Group who volunteered a significant number of hours to collect and analyze data, review empirical research, and summarize their findings in a way accessible to everyone. We are grateful for their partnership.

It is our hope that this report can be a resource for voters, policymakers, journalists, business leaders, and the general public for evidence-based discourse that transcends rhetoric and partisanship on this important topic.

Executive Summary

Immigrants are an integral part of the U.S. economy. According to 2022 data from the U.S. Census Bureau, there are approximately 46 million immigrants in the United States, representing close to 14 percent of the total U.S. population. Immigrants participate in the civilian labor force at higher rates than native-born U.S. workers, and they are an important source for U.S. labor force growth that will help offset the large-scale retirement of baby boomers. A significant part of the growth in the foreign-born labor force in the United States over the past decade is associated with the arrival of immigrants who hold a bachelor's degree or higher.

Immigrants in the United States participate in a wide variety of occupations, ranging from high-skilled, high-wage jobs such as physicians and engineers to low-wage jobs such as agriculture work and food manufacturing. During the COVID-19 pandemic and associated lockdowns in the United States, immigrants played critical roles in key sectors of the economy, including healthcare, scientific research and development, agriculture, and food supply. Analysis by the Immigration Research Initiative, a nonpartisan think tank, estimates that in 2021, immigrants contributed $3.3 trillion to the U.S. gross domestic product (GDP), which represents 17 percent of total U.S. GDP.

In addition to the civilian workforce, immigrants also serve in the U.S. military. As of 2022, nearly 731,000 veterans of the U.S. armed forces were born outside the United States, representing approximately 4.5 percent of the U.S. veteran population, with Mexican and Filipino immigrants comprising the largest groups of foreign-born veterans.

Impact of Immigration on Entrepreneurial Activity, Innovation, and Productivity in the U.S. Economy

Immigrants are entrepreneurs, innovators, and job creators. Immigrants in the United States are more likely to start new businesses compared to native-born Americans, particularly in technology- and engineering-related sectors. According to New American Economy, a bipartisan research and advocacy organization, Approximately 3.2 million immigrant entrepreneurs in the United States generated $1.3 trillion in sales in 2017. In 2017, immigrant-owned businesses employed 8 million workers in the United States. Economic studies also suggest that immigrants create more jobs than they take in the U.S. economy.

Companies founded by immigrants or their children or those with foreign-born CEOs make substantial contributions to the U.S. economy. As of 2023, almost half of Fortune 500 firms were founded by either an immigrant or a child of immigrants. As of 2022, more than half of America's startup companies valued at $1 billion had immigrant founders, and key members of management or product development teams in more than 70 percent of these startups were immigrants. In 2023, 22 percent of Fortune 100 CEOs were born outside the

United States, including four of the most valuable public companies in the United States (Nvidia, Google, Microsoft, Tesla).

Immigrants also drive innovation in the U.S. economy. In 2011, 76 percent of patents awarded to the top 10 patent-producing U.S. universities had a foreign-born inventor, and more than three-quarters of patents in the fields of information technology, pharmaceuticals, and molecular biology had a foreign-born inventor. A more recent analysis shows that between 2000 and 2018, immigrants authored or co-authored 30 percent of patents in strategic industries: 44 percent in information; 38 percent in professional, scientific, and technical services; 37 percent in healthcare and social assistance; 29 percent in manufacturing; 26 percent in utilities; and 24 percent in mining, quarrying, and oil and gas extraction. These patents by immigrant inventors generate substantial economic value. One academic study found that immigrant inventors generated 25 percent of the aggregate economic value created by patents in publicly traded and private U.S. companies between 1990 and 2016.

International students are an important source of innovation in the U.S. economy. According to a 2022 study, one-quarter of startup U.S. companies valued at $1 billion or more have a founder who first came to the United States as an international student. These companies created an average of 860 jobs in the United States.

Immigrant inventors and college graduates have positive spillover effects on native-born U.S. inventors. One empirical study found that immigrants in the United States are responsible for 36 percent of aggregate innovation in the United States, two-thirds of which can be attributed to the positive effects that immigrants have on their native-born U.S. collaborators. Another study found that a 1.3 percentage point increase in the share of the overall U.S. population composed of immigrant college graduates, and a 0.7 percentage point increase in that same share composed of immigrants with a post-baccalaureate degree, each led to an increase in patenting per capita in the United States by 12 to 21 percent. That same study found that an increase as small as 0.45 percentage points in immigrant scientists and engineers in the overall U.S. population increased patenting per capita by approximately 13 to 32 percent.

Contributions of High-Skilled Immigrants to the U.S. Economy

International students are significantly more likely to get their degrees in a STEM field—an area of critical domestic talent shortages—compared to domestic U.S. students. International students make up over 30 percent of the post-baccalaureate degrees in STEM fields and approximately half of the post-baccalaureate and doctorate degrees in mathematics and statistics. International students bring substantial economic benefit to the U.S. economy. One study found that during the 2022-2023 academic year, international students contributed over $40 billion to the U.S. economy through tuition and living expenses and created or supported close to 370,000 jobs. These benefits accrue to

a variety of sectors in the economy, including accommodation, dining, retail, healthcare, telecommunications, and transportation.

Immigrants make substantial contributions to the practice of medicine and medical research in the United States. Close to 30 percent of physicians aged 25 to 54 years old practicing in the United States are foreign-born. Importantly, foreign-born physicians are disproportionately represented in the middle of the country and rural areas. For example, 28 percent of Ohio's physicians are foreign-born despite immigrants comprising only 7 percent of Ohio's population. Similarly, 17 percent of Kentucky's physicians are foreign-born, but immigrants only account for 6 percent of the state's total population. Researchers at the top 7 cancer centers in the United States come from more than 55 countries, and 42 percent of researchers at these top cancer research centers were immigrants.

Foreign-born scientists, mathematicians, and engineers in the United States also represent some of the best in the field. 40 percent of the Nobel Prizes won by Americans in Chemistry, Medicine, and Physics since 2000 were awarded to immigrants. In 2016, all 6 American winners of the Nobel Prize in economics and scientific fields were foreign-born. From 2010-2023, 8 out of 18 American recipients of the Turing Award (for computing) were first- or second-generation immigrants. Since 1936, 62 percent of Fields Medal (for mathematics) recipients affiliated with a U.S. research institution have been foreign-born (and all but one of these recipients have been foreign-born since 2002). 41 percent of National Medal of Science recipients in mathematics or computer science are foreign-born. 43 percent of Breakthrough Prize winners (in life sciences, fundamental physics, and mathematics) who were affiliated with a U.S. institution at the time of the award were immigrants; in mathematics, specifically, 73 percent of winners affiliated with a U.S. institution were immigrants.

Immigration, Crime, and Terrorism

Research indicates that immigrants, including undocumented immigrants, are less likely to be incarcerated than the native-born U.S. population. These observed differences in incarceration rates are unlikely to be explained by the deportation of immigrants who commit crimes. Instead, academic studies suggest that the differences can be explained by the selection of individuals who immigrate to the United States, who have a lower propensity to commit crime and/or are more responsive to deterrents compared to an average native-born American in the United States.

Academic studies do not find evidence to support the claim that higher rates of immigration increase crime rates. To the contrary, findings from these studies suggest that immigration can reduce crime, especially violent crime, over time.

Data indicate that immigrants are no more likely to be radicalized in the United States than the native-born U.S. population. Analysis of the Profiles of Individual Radicalization in

the United States database indicates that immigrants accounted for less than 9 percent of the 1,827 individuals who were reported to have been radicalized to violent and non-violent extremism in the United States from 2010 to 2021, despite making up over 12 percent of the U.S. population.

Research also shows that higher rates of immigration are not associated with higher rates of terrorism. To the contrary, some studies find that increases in immigration to a given country could lead to lower levels of terrorist attacks. An analysis of terrorism-related-activity data across all 50 states in the United States indicates that increases in undocumented immigration in the United States from 1990 to 2014 had no effect on terrorist incidents.

Immigrants' Use of Public Services and Government Benefits and Its Fiscal Impact

Non-citizen immigrants are restricted from making use of many public services and government benefits that are available to U.S. citizens. Lawfully present immigrants frequently face waiting periods and other requirements to access certain public services and government benefits, while undocumented immigrants are largely barred from accessing these social programs altogether.

Immigrants, as individuals, are less likely to benefit from social services than native-born Americans, and when immigrants do, they tend to use lower levels of benefits than native-born Americans. For example, one academic study found that in 2020, immigrants consumed 27 percent less welfare and entitlement benefits than native-born Americans on a per capita basis.

Immigrants, including undocumented immigrants, make significant tax contributions to federal, state, and local governments in the United States. A recent study analyzing data from the American Community Survey estimated that in 2022, immigrant households contributed over $579 billion in federal, state, and local taxes, of which $383 billion were paid in federal taxes, accounting for approximately 15 percent of total federal income tax contributions that year. Undocumented immigrant-headed households, specifically, paid $21.5 billion in federal taxes and $13.6 billion in state and local taxes, despite not qualifying for many government benefits.

Empirical research finds that immigrants in the United States have a net positive fiscal impact over their lifetime. For example, a 2017 study by the National Academies of Sciences, Engineering, and Medicine concluded that a new immigrant, with the average age and educational attainment of recent immigrants, creates a positive fiscal balance at all levels of government with a net present value of $259,000. Notably, these studies likely underestimate the total fiscal impact of immigrants because they do not fully capture immigrants' indirect contributions to the U.S. economy, such as job creation.

Impact of Visa Restrictions on the U.S. Economy

Student and temporary work visas are important pipelines for bringing international talent to the United States. H-1B visas represent the primary legal pathway for a high-skilled foreign national to work in the United States and have an opportunity to become a lawful permanent resident or a U.S. citizen. In fiscal year 2023, approximately half of all approved new H-1B petitions were in professional, scientific, and technical services, 14.3 percent in educational services, 7.4 percent in manufacturing, 6.9 percent in healthcare and social assistance, and 6 percent in information technology.

The number of U.S. temporary employment-based visas that can be issued annually is subject to caps, and these caps have not changed since the early 2000s. However, the number of H-1B visa petitions continues to grow each year, reflecting the increasing demand for skilled labor in the U.S. workforce. For fiscal year 2024, U.S. Citizenship and Immigration Services received 780,884 H-1B registrations, the highest number of H-1B registrations in the history of the program.

These static caps on temporary employment-based visas have the effect of restricting high-skilled labor flows into the United States despite the growing demand for these skills by U.S. firms, especially in the technology sector. Findings from economic research show that such restrictions on high-skilled labor flows can lower native workers' productivity and wages, reduce innovation, and decrease U.S. competitiveness in the global economy.

Flows of low-wage workers into the United States also benefit the U.S. economy. Studies suggest that restrictions on low-wage labor flows can negatively affect firms' revenues and investments, discourage job creation, and depress U.S. labor force growth (a key driver of economic growth). In addition, economic research shows that low-wage labor flows have little to no impact on wages or employment levels of the native-born U.S. population.

Despite the perception that refugees are threats to or burdens on the U.S. economy, data indicate that refugees make positive contributions to the U.S. economy and complement the roles of native-born Americans and other immigrants in the labor market. Compared to non-refugee immigrants, refugees are more likely to be employed and to start their own businesses and less likely to crowd out jobs that are likely to be filled by new immigrants, such as construction, food industry, and private household jobs.

Immigration is critically important for mitigating challenges to the U.S. economy posed by an aging population. The U.S. Census Bureau estimates that immigration is expected to drive most of the labor force growth in the United States through 2050. A 2017 report from the National Academies of Sciences, Engineering, and Medicine reviewing studies on the economic and fiscal consequences of immigration concluded that immigration has helped the United States avoid problems facing stagnant economies created by an aging population and declining fertility rates and boosted the nation's capacity for innovation, entrepreneurship, and technological change.

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List of Abbreviations

AAMC	Association of American Medical Colleges
ABS	Annual Business Survey
ACA	Affordable Care Act
ACS	American Community Survey
ASE	Annual Survey of Entrepreneurs
BLS	Bureau of Labor Statistics
CASPER	Certification and Survey Provider Enhanced Reports
CBO	Congressional Budget Office
CHIP	Children's Health Insurance Program
CNA	certified nursing assistant
COFA	Compact of Free Association
CPS	Current Population Survey
DACA	Deferred Action for Childhood Arrivals program
DHS	Department of Homeland Security
EIG	Economic Innovation Group
EMTALA	Emergency Medical Treatment and Labor Act
FBI	Federal Bureau of Investigation
FCEP	From-Conception-to-End-of-Pregnancy
FPL	federal poverty level
FY	fiscal year
GAO	Government Accountability Office
GDP	gross domestic product
ICE	Immigration and Customs Enforcement
ICHIA	Immigrant Children's Health Improvement Act
IIE	Institute of International Education
ILRC	Immigrant Legal Resource Center
INA	Immigration and Nationality Act
IPEDS	Integrated Postsecondary Education Data System
IPUMS	Integrated Public Use Microdata Samples
ITIF	Information Technology and Innovation Foundation
ITIN	individual taxpayer identification number
LBD	Longitudinal Business Database
LCA	Labor Conditions Application
LEHD	Longitudinal Employer-Household Dynamics
LPR	lawful permanent resident
MAVNI	Military Accessions Vital to National Interest
MBSF	Master Beneficiary Summary File
MDS	Minimum Data Set
MPI	Migration Policy Institute

NAFSA	National Association of Foreign Student Advisers
NAICS	North American Industry Classification System
NAS	National Academy of Sciences
NASEM	National Academies of Sciences, Engineering, and Medicine
NBER	National Bureau of Economic Research
NFAP	National Foundation for American Policy
NILC	National Immigration Law Center
NPR	National Public Radio
OECD	Organisation for Economic Co-operation and Development
OHSS	Office of Homeland Security Statistics
OPT	Optional Practical Training
PIRUS	Profiles of Individual Radicalization in the United States
PRWORA	Personal Responsibility and Work Opportunity Reconciliation Act of 1996
PUMS	Public Use Microdata Sample
SBO	Survey of Business Owners
SIPP	Survey of Income and Program Participation
SNAP	Supplemental Nutrition Assistance Program
SSA	Social Security Administration
SSI	Supplemental Security Income
SSN	Social Security number
STEM	Science, Technology, Engineering, and Mathematics
TANF	Temporary Assistance for Needy Families
UNCDF	United Nations Capital Development Fund
USCIS	U.S. Citizenship and Immigration Services
USDA	U.S. Department of Agriculture
USPTO	U.S. Patent and Trademark Office
USRAP	United States Refugee Admissions Program
WIC	Women, Infants, and Children
WRAPS	Worldwide Refugee Admissions Processing System

I. Overview of Immigrants in the Current U.S. Economy

KEY TAKEAWAYS

- In 2022, there were approximately 46.2 million immigrants in the United States, representing 13.9 percent of the total U.S. population. Immigrants in the United States come from diverse places of origin: historically, primarily from Europe; since 1965, primarily from Latin America and Asia.
- Immigrants participate in the civilian labor force at higher rates than native-born U.S. workers. Over the past 5 decades, immigrants have represented a growing share of the U.S. civilian labor force. In 1970, immigrants accounted for approximately 5 percent of the U.S. civilian labor force; as of 2024, their share has risen to nearly 20 percent. A significant part of the growth in the foreign-born labor force in the United States over the past decade is associated with the arrival of immigrants who hold a bachelor's degree or higher.
- Immigrants participate in a wide variety of occupations, ranging from high-skilled, high-wage jobs such as physicians and engineers to low-wage jobs such as agriculture work and food manufacturing. During the COVID-19 pandemic and associated lockdowns in the United States, immigrants played critical roles in key sectors of the economy, including healthcare, scientific research and development, agriculture, and food supply.
- In addition to participating in the U.S. civilian labor force, immigrants also serve in the U.S. military. As of 2022, immigrants represented approximately 4.5 percent of the veteran population, with Mexican and Filipino immigrants comprising the largest groups of foreign-born veterans.
- Recent economic research also highlights the importance of immigrants as employers and entrepreneurs in the U.S. economy, indicating that they "create jobs" more than they "take jobs."

According to the U.S. Census Bureau's 2022 American Community Survey (ACS), there are approximately 46.2 million immigrants in the United States, representing 13.9 percent of

the total U.S. population.[1, 2] Based on estimates from the Pew Research Center, as of 2022, approximately 49 percent of immigrants in the United States were naturalized citizens, 24 percent were lawful permanent residents (LPRs, or Green Card holders), 4 percent were legal temporary residents, and the remaining 23 percent were undocumented immigrants.[3]

- According to historical decennial census data, the U.S. immigrant population grew from approximately 2.2 million in 1850 to 31.1 million in 2000, while the immigrant share of the U.S. population fluctuated between approximately 5 and 15 percent over that period (*see* **Figure 1.1**).[4] The immigrant share of the U.S.

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1 Unless otherwise noted, the term "immigrants" refers to people residing in the United States who were not U.S. citizens at birth, which includes naturalized citizens, lawful permanent residents (LPRs), certain legal nonimmigrants (e.g., individuals on student or work visas), those admitted under refugee or asylee status, and undocumented persons residing in the United States.

2 Batalova, Jeanne, "Frequently Requested Statistics on Immigrants and Immigration in the United States," Migration Policy Institute, March 13, 2024, pp. 1-2. The Migration Policy Institute (MPI) article uses statistics from the ACS, available at U.S. Census Bureau, Selected Population Profile in the United States, *available at* https://data.census.gov/table/ACSSPP1Y2022.S0201?q=ACS%202022%20total%20population. *See also*, Azari, Shabnam Shenasi, Virginia Jenkins, Joyce Hahn, and Lauren Medina, "The Foreign-Born Population in the United States: 2022," U.S. Census Bureau, April 2024, *available at* https://www2.census.gov/library/publications/2024/demo/acsbr-019.pdf, p. 1.

3 Moslimani, Mohamad and Jeffrey S. Passel, "What the Data Says About Immigrants in the U.S.," Pew Research Center, July 22, 2024, *available at* https://www.pewresearch.org/short-reads/2024/7/22/key-findings-about-us-immigrants/, *accessed* August 19, 2024. Pew Research Center estimates are based on "augmented US Census Bureau Data."

According to the U.S. Citizenship and Immigration Services (USCIS), naturalization "is the process by which U.S. citizenship is granted to a lawful permanent resident after meeting the requirements established by Congress in the Immigration and Nationality Act (INA)." "Citizenship and Naturalization," U.S. Citizenship and Immigration Services, *available at* https://www.uscis.gov/citizenship/learn-about-citizenship/citizenship-and-naturalization, *accessed* August 9, 2024. A lawful permanent resident is an individual who is "not a citizen of the United States who is living in the U.S. under legally recognized and lawfully recorded permanent residence as an immigrant." A legal temporary resident is a "noncitizen who seeks temporary entry to the United States for a specific purpose. They must have a permanent residence abroad (for most classes of admission) and qualify for the nonimmigrant classification they are seeking." *See also*, "Glossary," U.S. Citizenship and Immigration Services, *available at* https://www.uscis.gov/tools/glossary, *accessed* August 9, 2024.

An undocumented immigrant is a foreign-born non-citizen who is not a legal resident. *See, e.g.*, "Estimates of the Unauthorized Immigrant Population Residing in the United States," Office of Homeland Security Statistics, *available at* https://ohss.dhs.gov/topics/immigration/unauthorized-immigrants/estimates-unauthorized-immigrant-population-residing, *accessed* September 6, 2024. According to Pew Research Center, "[i]n 2022, about 3 million unauthorized immigrants had [] temporary legal protections." These immigrants include, for example, those who have Temporary Protected Status (TPS), which is "offered to individuals who cannot safely return to their home country because of civil unrest, violence, natural disaster or other extraordinary and temporary conditions"; those who are beneficiaries of the Deferred Action for Childhood Arrivals program (DACA), which "allows individuals brought to the U.S. as children before 2007 to remain in the U.S."; and asylum applicants, who "can stay in the U.S. legally while they wait for a decision on their case." *See also*, Budiman, Abby, "Key Findings About U.S. Immigrants," Pew Research Center, *available at* https://www.pewresearch.org/short-reads/2024/07/22/key-findings-about-us-immigrants/, *accessed* June 5, 2024.

4 The 2000 census was the last decennial census where a sample of households received a long-form questionnaire that included questions about where individuals were born. Census publications about the U.S. immigrant population after 2000 use data from the ACS. "Questionnaires - History," U.S. Census Bureau, *available at* https://www.census.gov/history/www/through_the_decades/questionnaires/, *accessed* September 9, 2024; "United States Census 2000 Questionnaire," U.S. Census Bureau, *available at* https://www.census.gov/history/pdf/2000_long_form.pdf, *accessed* September 9, 2024; "United States Census 2010 Questionnaire," U.S. Census Bureau, 2010, *available at* https://www.census.gov/history/pdf/2010questionnaire.pdf, *accessed* September 9, 2021; "America's Foreign Born in the Last 50 Years," U.S. Census Bureau, *available at* https://www.census.gov/programs-surveys/sis/resources/visualizations/foreign-born.html, *accessed* September 9, 2024.

population (as well as the total number of immigrants) declined steadily from 1930 to 1970. Since then, the immigrant U.S. population share has risen and has only recently returned to the levels observed in the 1930s.

- According to annual ACS data, which allow for more granular analysis, the U.S. immigrant population has grown from approximately 40.0 million in 2010 (representing 12.9 percent of the U.S. population) to 46.2 million in 2022 (representing 13.9 percent of the U.S. population) (see **Figure 1.2**).

Figure 1.1: Historical Trends in the U.S. Immigrant Population 1850-2000 Based on Decennial Census Data

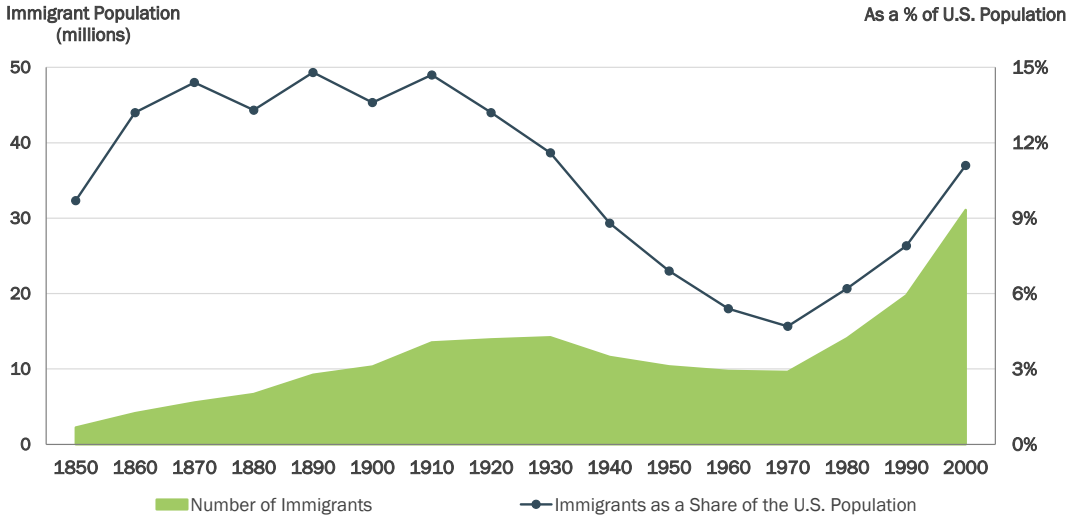
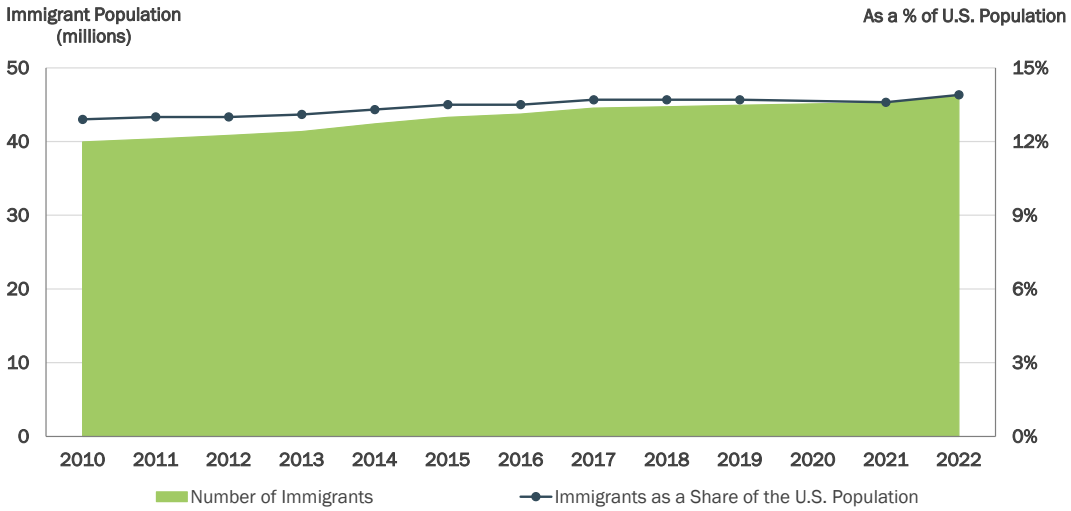


Figure 1.2: Recent Trends in the U.S. Immigrant Population 2010-2022 Based on American Community Survey Data



Sources:
[1] Migration Policy Institute (MPI) tabulation of the U.S. Census Bureau's 2010-2022 American Community Surveys (excluding 2020) and 1970, 1990, and 2000 Census data. The MPI Data Hub excludes 2020 ACS population estimates because the U.S. Census Bureau only released "experimental" ACS data for that year, due to data collection restrictions during the COVID-19 pandemic.
[2] All other data are from Gibson, Campbell and Emily Lennon, U.S. Census Bureau, Working Paper No. 29, Historical Census Statistics on the Foreign-Born Population of the United States: 1850 to 1990, U.S. Government Printing Office, Washington, DC, 1999.

- According to the U.S. Census Bureau, between 2021 and 2022, more than 80 percent of the total population growth in the United States was due to an increase in the number of immigrants. [5]
- According to the Congressional Budget Office (CBO), the U.S. immigrant population has continued to grow since 2022 and is expected to experience high rates of population growth through 2026. [6] In its budget and economic outlook report for 2024–2034, the CBO notes that the expected increase in immigration will expand the U.S. labor force and increase economic output, adding about 0.2 percentage points to the annual growth rate of real gross domestic product (GDP) (estimated to be 2.0 percent overall) during the 2024–2034 period. [7]
- As the immigrant population in the United States has grown, its composition has also changed.
  - According to Pew Research Center, "[b]efore 1965, U.S. immigration law favored immigrants from Northern and Western Europe […]. The 1965 Immigration and Nationality Act opened up immigration from Asia and Latin America." [8] Since 1965, the top 3 regions of origin for immigrants have been Latin America (accounting for approximately 49 percent of immigrants who arrived in the United States between 1965 and 2024), South/East Asia (27 percent), and Europe (12 percent). [9]
  - In recent years, according to the Office of Homeland Security Statistics (OHSS): [10]
    - Nearly 1 million LPRs became naturalized citizens in fiscal year 2022. [11] This was an increase of 19 percent relative to

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5 Total population growth was 1.2 million between 2021 and 2022, while net international migration was 999,267. U.S. Census Bureau, Annual Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for the United States, States, District of Columbia, and Puerto Rico: April 1, 2020 to July 1, 2023.

6 "The Budget and Economic Outlook: 2024 to 2034," Congressional Budget Office, February 2024, pp. 5, 7.

7 "The Budget and Economic Outlook: 2024 to 2034," Congressional Budget Office, February 2024, pp. 5, 7, 48, 55.

8 Moslimani, Mohamad and Jeffrey S. Passel, "What the Data Says About Immigrants in the U.S.," Pew Research Center, July 22, 2024, *available at* https://www.pewresearch.org/short-reads/2024/7/22/key-findings-about-us-immigrants/, *accessed* August 19, 2024.

9 Moslimani, Mohamad and Jeffrey S. Passel, "What the Data Says About Immigrants in the U.S.," Pew Research Center, July 22, 2024, *available at* https://www.pewresearch.org/short-reads/2024/7/22/key-findings-about-us-immigrants/, *accessed* August 19, 2024; Budiman, Abby, "Key Findings About U.S. Immigrants," Pew Research Center, *available at* https://www.pewresearch.org/short-reads/2024/07/22/key-findings-about-us-immigrants/, *accessed* June 5, 2024. Pew Research Center estimates are based on "1980, 1990, and 2000 decennial censuses; 2005-2022 American Community Surveys (IPUMS); and 2023-24 monthly Current Population Survey through April 2024."

10 In the Office of Homeland Security Statistics (OHSS) Annual Flow Reports, "year" refers to fiscal year; the 2022 fiscal year ran from October 1, 2021 to September 30, 2022. Caterina, Camille, "Annual Flow Report U.S. Naturalizations: 2022," Office of Homeland Security Statistics, November 2023, fn. 3; Baugh, Ryan, "Annual Flow Report U.S. Lawful Permanent Residents: 2022," Office of Homeland Security Statistics, November 2023, fn. 4; Gibson, Irene, "Annual Flow Report Refugees and Asylees: 2022," Office of Homeland Security Statistics, November 2023, fn. 5.

11 Caterina, Camille, "Annual Flow Report U.S. Naturalizations: 2022," Office of Homeland Security Statistics, November 2023, p. 1.

naturalization rates in the prior fiscal year, and a 34 percent increase relative to average annual naturalization rates during fiscal years 2010 to 2020. [12]

- More than 1 million immigrants were granted LPR status in fiscal year 2022, with 58 percent of those new LPRs being immediate relatives of a U.S. citizen or a current LPR. [13] The number of new LPRs in fiscal year 2022 reflected a shift from the decline observed during the years of the Trump administration and the COVID-19 pandemic but was similar to the annual average during fiscal years 2000 through 2021. [14]
- Temporary admissions to the United States in fiscal year 2022 included, among others, nearly 3.2 million temporary workers and their families, 1.3 million students, and 0.4 million exchange visitors. [15]
- "A total of 25,519 persons were admitted to the United States as refugees during 2022, including 9,012 as principal refugees and 16,507 as derivative accompanying refugees. The leading countries of nationality for refugees admitted during this period were the Democratic Republic of the Congo, Syria, and Burma." [16] According to the OHSS, "the Trump administration reduced the refugee ceiling during each of its four years and implemented new refugee vetting and screening procedures, contributing to a decrease in admissions from 2017-2021, with the final two years of this period making up the lowest levels of refugee admissions in U.S. history. Recent 2022 admissions levels indicate a slight

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12 Caterina, Camille, "Annual Flow Report U.S. Naturalizations: 2022," Office of Homeland Security Statistics, November 2023, p. 1.

13 Baugh, Ryan, "Annual Flow Report U.S. Lawful Permanent Residents: 2022," Office of Homeland Security Statistics, November 2023, pp. 1-2.

14 Baugh, Ryan, "Annual Flow Report U.S. Lawful Permanent Residents: 2022," Office of Homeland Security Statistics, November 2023, pp. 1, 4 ("With the exception of 1992-1996, when the LPR flow was returning to normal levels after the historic 1991 peak, 2016 to 2020 exhibited the longest continuous decrease of new LPRs since 1940-1944. These LPR admissions fell for three consecutive years even before the global pandemic contributed to the 17-year low in 2020.").

15 Ward, Alicia, "Annual Flow Report U.S. Nonimmigrant Admissions: 2022," Office of Homeland Security Statistics, November 2023, Table 1, p. 5. In total, there were 44.9 million I-94 admissions in fiscal year 2022, which included temporary workers and families, students, exchange visitors, as well as other categories such as diplomats and other representatives, temporary visitors for pleasure, and temporary visitors for business. Among temporary workers and their families, the leading visa categories were for agricultural workers (H2A visa), workers in specialty occupations (H1B visa), intracompany transferees (L1 visa), and their spouses and children (H4 and L2 visas). Among students and exchange visitors, the leading visa categories were for academic students (F1 visa), vocational students (M1 visa), exchange visitors (J1 visa), and their spouses and children (F2, M2, and J2 visas).

16 Gibson, Irene, "Annual Flow Report Refugees and Asylees: 2022," Office of Homeland Security Statistics, November 2023, p. 1. According to the OHSS, "Derivative refugees are eligible dependents (spouses and unmarried children under 21 years of age) of the principal refugee who either accompany the principal refugee or are petitioned for by the principal as follow-to-join derivatives."

rebound but remain the next-lowest admissions (outside the 2017-2021 period) since the program started." [17]

- In addition, 36,615 persons were granted asylum in the United States in fiscal year 2022, an increase relative to prior fiscal years 2021 (16,628 individuals) and 2020 (30,736 individuals). [18]

A. Characteristics of the U.S. Immigrant Population

- Immigrants to the United States come from diverse places of origin.
  - Among the 46.2 million immigrants who resided in the United States as of 2022, 52.1 percent were born in the Americas, 31.1 percent in Asia, 10.2 percent in Europe, 6.0 percent in Africa, and 0.6 percent in Oceania. [19]
  - Ten countries of origin collectively accounted for approximately 55 percent of the 46.2 million immigrants in the United States: Mexico, India, China, the Philippines, El Salvador, Vietnam, Cuba, the Dominican Republic, Guatemala, and Korea. [20]
- Immigrants to the United States reside throughout the country, with larger immigrant population shares on both coasts and in Texas.
  - According to 2022 1-year ACS estimates, the 10 states with the highest immigrant population shares are California (26.7 percent), New Jersey (23.5 percent), New York (22.7 percent), Florida (21.7 percent), Nevada (18.9 percent), Hawaii (17.1 percent), Massachusetts (18.0 percent), Texas (17.2 percent), Maryland (16.7 percent), and Connecticut (15.7 percent). [21] The 10 states with the lowest immigrant population shares are Louisiana (4.2 percent), Missouri (4.1 percent), Maine (4.1 percent), Kentucky (4.0 percent), Alabama (3.8 percent), South Dakota (3.5 percent), Wyoming (3.1

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17 Gibson, Irene, "Annual Flow Report Refugees and Asylees: 2022," Office of Homeland Security Statistics, November 2023, p. 3.

18 Gibson, Irene, "Annual Flow Report Refugees and Asylees: 2022," Office of Homeland Security Statistics, November 2023, pp. 1, 10, 13. According to the OHSS, "These asylum grants were based upon a principal asylum applicant's application, which may also include an accompanying spouse and unmarried children under 21 years of age. They do not include individuals who were approved for follow-to-join asylum status while residing in the United States or abroad." A main difference between refugees and asylees is that "[a]pplicants for refugee status are outside the United States, whereas applicants seeking asylum are either within the United States or arriving at a U.S. port of entry (POE)."

19 MPI Data Hub, Immigrant Population by Region and Country of Birth, 2000 to 2022, *accessed* July 31, 2024. Statistics calculated from an MPI tabulation of data from the 2022 ACS.

20 Batalova, Jeanne, "Frequently Requested Statistics on Immigrants and Immigration in the United States," Migration Policy Institute, March 13, 2024, pp. 2, 4.

21 Azari, Shabnam Shenasi, Virginia Jenkins, Joyce Hahn, and Lauren Medina, "The Foreign-Born Population in the United States: 2022," U.S. Census Bureau, April 2024, *available at* https://www2.census.gov/library/publications/2024/demo/acsbr-019.pdf, p. 3.

percent), Montana (2.3 percent), Mississippi (2.2 percent), and West Virginia (1.8 percent).[22]

  - According to the Migration Policy Institute (MPI), based on data from the 2010 and 2022 ACS, the 10 states with the highest growth in immigrant population from 2010 to 2022 are North Dakota (131 percent), West Virginia (44 percent), South Dakota (42 percent), Delaware (41 percent), Indiana (38 percent), Iowa (37 percent), Tennessee (36 percent), Washington (34 percent), Idaho (33 percent), and Pennsylvania (32 percent).[23]

- More than half of immigrants ages 5 years and older are proficient English speakers.
  - According to the 2022 ACS, among immigrants ages 5 years and older, 17 percent only speak English at home, and an additional 37 percent speak a language other than English at home but speak English "very well."[24]
  - The remaining 46 percent of immigrants ages 5 years and older speak English less than "very well," accounting for 80 percent of the country's 26.5 million individuals with limited proficiency in English.[25]
  - Among the 83 percent of immigrants ages 5 years and older who speak another language at home, 50 percent speak Spanish.[26]
- The United States Refugee Admissions Program (USRAP) was first instituted in 1980 and has led to the admission of more than 3 million refugees since then.[27]

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22 Azari, Shabnam Shenasi, Virginia Jenkins, Joyce Hahn, and Lauren Medina, "The Foreign-Born Population in the United States: 2022," U.S. Census Bureau, April 2024, *available at* https://www2.census.gov/library/publications/2024/demo/acsbr-019.pdf, p. 3.

23 Batalova, Jeanne, "Frequently Requested Statistics on Immigrants and Immigration in the United States," Migration Policy Institute, March 13, 2024, p. 12. Statistics are based on "MPI tabulation of data from the U.S. Census Bureau 2010 and 2022 ACS."

24 U.S. Census Bureau, American Community Survey, 2018-2022 Public Use Microdata Sample (PUMS) 5-Year Estimates, *available at* https://www2.census.gov/programs-surveys/acs/data/pums/2022/5-Year/, *accessed* June 20, 2024.

25 Batalova, Jeanne, "Frequently Requested Statistics on Immigrants and Immigration in the United States," Migration Policy Institute, March 13, 2024, p. 9; U.S. Census Bureau, American Community Survey, 2018-2022 Public Use Microdata Sample (PUMS) 5-Year Estimates, *available at* https://www2.census.gov/programs-surveys/acs/data/pums/2022/5-Year/, *accessed* June 20, 2024.

26 U.S. Census Bureau, American Community Survey, 2018-2022 Public Use Microdata Sample (PUMS) 5-Year Estimates, *available at* https://www2.census.gov/programs-surveys/acs/data/pums/2022/5-Year/, *accessed* June 20, 2024.

27 Gibson, Irene, "Annual Flow Report Refugees and Asylees: 2022," Office of Homeland Security Statistics, November 2023, pp. 2-3.

- According to the OHSS, the highest number of annual refugee admissions since the inception of USRAP was in fiscal year 1990, when 122,066 refugees were admitted.[28]
- More recently, according to the OHSS:
  - For fiscal year 2020, then-President Trump set the refugee admissions ceiling at 18,000.[29]
  - For fiscal year 2021, then-President Trump set the refugee admissions ceiling at 15,000, the lowest level since the USRAP was instituted in 1980.[30] This ceiling was subsequently modified by President Biden, who set the fiscal year 2021 ceiling at 62,500.[31]
  - For fiscal year 2022, President Biden set the refugee admissions ceiling at 125,000.[32] However, according to the OHSS, "refugee admissions were slow to recover in 2022 and 2021 despite these years having much higher ceilings than 2020. This slow rebuild was due to a variety of factors, including longstanding impacts from funding cuts, program pauses, and increased vetting during the Trump administration."[33]
- Refugees are required to apply for LPR status 1 year after being admitted to the United States, and if granted LPR status are eligible to apply for naturalization 5 years after their date of admission as a refugee.[34] According to the OHSS, "approximately 730,000 adults […] obtained LPR status from 2000 to 2016 based on prior admission as a refugee," and 58 percent of them naturalized within 6 years.[35]

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28 Gibson, Irene, "Annual Flow Report Refugees and Asylees: 2022," Office of Homeland Security Statistics, November 2023, p. 3. In the OHSS Annual Flow Reports, a "year" refers to fiscal year. For example, the 2022 fiscal year ran from October 1, 2021 to September 30, 2022. Gibson, Irene, "Annual Flow Report Refugees and Asylees: 2022," Office of Homeland Security Statistics, November 2023, p. 1.

29 Gibson, Irene, "Annual Flow Report Refugees and Asylees: 2022," Office of Homeland Security Statistics, November 2023, p. 2.

30 Gibson, Irene, "Annual Flow Report Refugees and Asylees: 2022," Office of Homeland Security Statistics, November 2023, p. 2.

31 Gibson, Irene, "Annual Flow Report Refugees and Asylees: 2022," Office of Homeland Security Statistics, November 2023, p. 2.

32 Gibson, Irene, "Annual Flow Report Refugees and Asylees: 2022," Office of Homeland Security Statistics, November 2023, p. 2.

33 Gibson, Irene, "Annual Flow Report Refugees and Asylees: 2022," Office of Homeland Security Statistics, November 2023, p. 2.

34 Gibson, Irene, "Annual Flow Report Refugees and Asylees: 2022," Office of Homeland Security Statistics, November 2023, p. 7.

35 Gibson, Irene, "Annual Flow Report Refugees and Asylees: 2022," Office of Homeland Security Statistics, November 2023, p. 7. According to the OHSS, "Here 2016 is used as the end year to account for five years of waiting to be eligible for naturalization plus one additional year to file paperwork and undergo processing before the current 2022 data; in other words, allowing a full six years for refugees to naturalize. The data were restricted to individuals who

- According to the MPI, "[t]he geographic origins of admitted refugees have changed considerably over time[.]"[36] Based on MPI's analysis of State Department Worldwide Refugee Admissions Processing System (WRAPS) data, for the first 8 months of fiscal year 2023 (October 1, 2022 to May 31, 2023), "43 percent of admitted refugees were from Africa, 28 percent from the Middle East and South Asia, 13 percent from East Asia, 11 percent from Latin America and the Caribbean, and 4 percent from Europe and Central Asia. In comparison, the leading origins of resettled refugees in FY [fiscal year] 2012 was the Middle East and South Asia (52 percent), followed by East Asia (25 percent), Africa (18 percent), Latin America and the Caribbean (4 percent), and Europe and Central Asia (2 percent)."[37]
- Also based on MPI's analysis of WRAPS data, in the first 8 months of fiscal year 2023 (October 1, 2022 to May 31, 2023), 10 percent of the total admitted refugee population resettled in Texas.[38] Other top resettlement destinations were New York (6 percent), California (6 percent), Kentucky (5 percent), and Pennsylvania (5 percent).[39]

B. Immigrants as Members of the U.S. Labor Force

i. Overview

- Analysis by Goldman Sachs Research documents that "[s]ince 1990, the US labor force has grown by almost 30% and immigrants have accounted for about half of this net increase."[40]
- Analysis by the MPI shows that the immigrant share of the U.S. civilian labor force has more than tripled since 1970, from immigrants accounting for roughly 5 percent of the U.S. civilian labor force in 1970 to 17 percent in 2022.[41]

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were at least 18 years old when LPR status was obtained, indicating a choice to adjust status was made." Gibson, Irene, "Annual Flow Report Refugees and Asylees: 2022," Office of Homeland Security Statistics, November 2023, p. 7, fn. 26.

36 Ward, Nicole and Jeanne Batalova, "Refugees and Asylees in the United States," Migration Policy Institute, June 15, 2023, p. 5.

37 Ward, Nicole and Jeanne Batalova, "Refugees and Asylees in the United States," Migration Policy Institute, June 15, 2023, pp. 4-5.

38 Ward, Nicole and Jeanne Batalova, "Refugees and Asylees in the United States," Migration Policy Institute, June 15, 2023, p. 8.

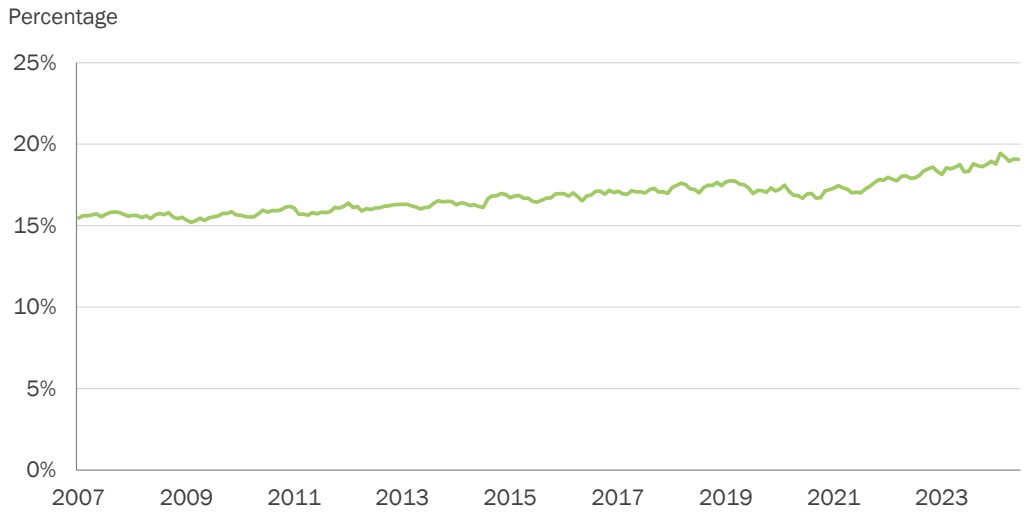
39 Ward, Nicole and Jeanne Batalova, "Refugees and Asylees in the United States," Migration Policy Institute, June 15, 2023, p. 8.

40 These statistics from Goldman Sachs Research are based on their analysis of data from the World Bank, Goldman Sachs Global Investment Research, the U.S. Census Bureau, and the U.S. Bureau of Labor Statistics. Cohen, Abby Joseph and Michael Hao Wu, "A Closer Look: Immigration and the U.S. Workforce," Goldman Sachs Research, August 13, 2019, pp. 1, 3-4.

41 Batalova, Jeanne, "Frequently Requested Statistics on Immigrants and Immigration in the United States," Migration Policy Institute, March 13, 2024, p. 12. The civilian labor force includes both employed individuals and unemployed individuals looking for work.

- Similarly, according to the U.S. Bureau of Labor Statistics (BLS), data from the Current Population Survey (CPS) show that the immigrant share of the U.S. civilian labor force steadily increased from 15.5 percent (23.5 million foreign-born workers) in January 2007 to 19.1 percent (32.2 million foreign-born workers) in June 2024 (*see* **Figure 1.3**).

Figure 1.3: Immigrant Share of U.S. Civilian Labor Force, January 2007-June 2024

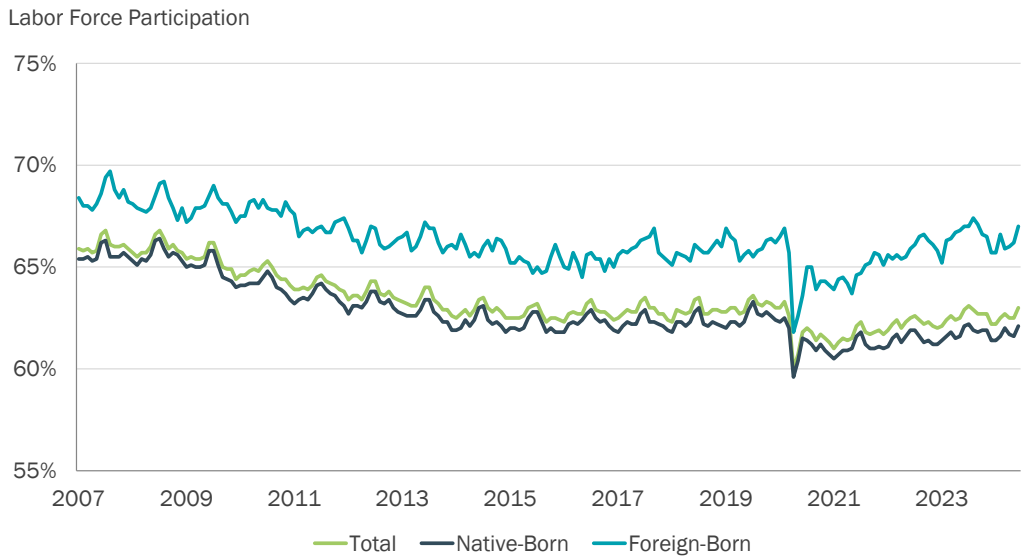


Note: Percentage calculated as foreign-born labor force divided by the total labor force.

Source: U.S. Bureau of Labor Statistics, Labor Force Statistics from the Current Population Survey, Series ID: LNU01000000 and LNU01073395, *available at* https://data.bls.gov/dataViewer/view/timeseries/LNU01000000 and https://data.bls.gov/dataViewer/view/timeseries/LNU01073395.

- In addition, according to the BLS CPS data, the foreign-born labor force participation rate has been consistently higher than the native-born U.S. labor force participation rate since 2007 (*see* **Figure 1.4**).

Figure 1.4: Foreign-Born and Native-Born U.S. Labor Force Participation, January 2007-June 2024

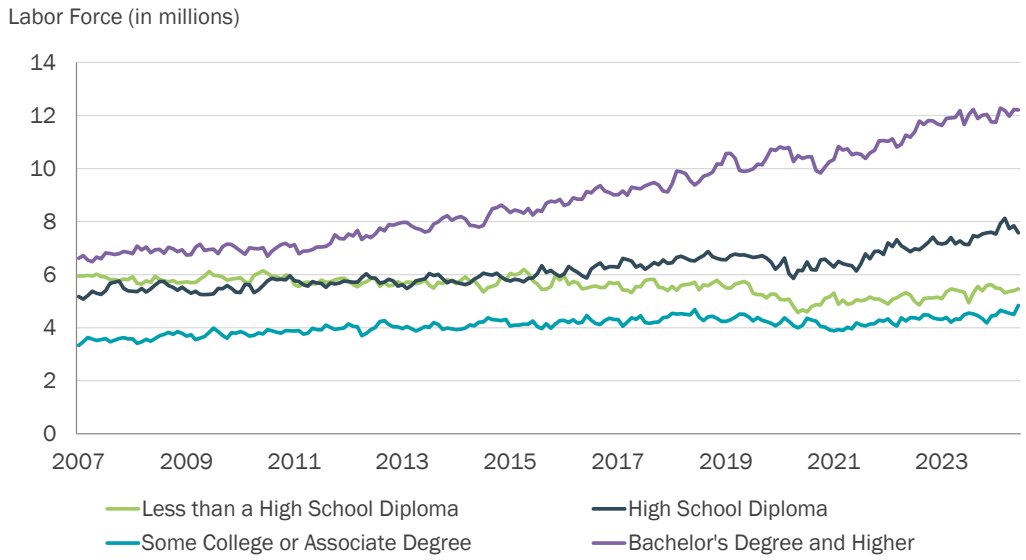


Note: BLS defines "foreign born" as "people residing in the United States who were not U.S. citizens at birth," and "native born" as "people born in the United States or one of its outlying areas such as Puerto Rico or Guam or, if born abroad, had at least one parent who was a U.S. citizen."

Source: U.S. Bureau of Labor Statistics, Labor Force Statistics from the Current Population Survey, Series ID: LNU01300000, LNU01373413, and LNU01373395, *available at* https://data.bls.gov/dataViewer/view/timeseries/LNU01300000, https://data.bls.gov/dataViewer/view/timeseries/LNU01373413, and https://data.bls.gov/dataViewer/view/timeseries/LNU01373395.

- Further, according to the BLS CPS data, among immigrants ages 25 years or over participating in the labor force, the largest growth has been among those with at least a bachelor's degree (*see* **Figure 1.5**). This number almost doubled between January 2007 (6.6 million) and June 2024 (12.2 million), while the number of immigrants in this age group participating in the labor force with lower educational attainment remained relatively stable throughout this period.

Figure 1.5: Foreign-Born Labor Force (25 Years or Over) by Education Background, January 2007-June 2024



Source: U.S. Bureau of Labor Statistics, Labor Force Statistics from the Current Population Survey, Series ID: LNU01073409, LNU01073410, LNU01073411, and LNU01073412, *available at* https://data.bls.gov/dataViewer/view/timeseries/LNU01073409, https://data.bls.gov/dataViewer/view/timeseries/LNU01073410, https://data.bls.gov/dataViewer/view/timeseries/LNU01073411, and https://data.bls.gov/dataViewer/view/timeseries/LNU01073412.

- Similarly, based on tabulation of data from the 2022 ACS by the MPI, more recent immigrants have higher educational attainment. 48 percent of immigrants ages 25 and older who entered the United States between 2020 and 2022 have a bachelor's degree or higher.[42]
- Immigrant workers participate in a wide range of occupations, from high-skilled, high-wage jobs to low-wage jobs. Based on analysis of CPS data by Goldman Sachs Research, between 2016 and 2018:
  - Immigrants represented more than 25 percent of the workforce in jobs related to Computer and Mathematical Science; Farming, Fishing,

[42] Batalova, Jeanne, "Frequently Requested Statistics on Immigrants and Immigration in the United States," Migration Policy Institute, March 13, 2024, p. 10.

and Forestry; Cleaning and Maintenance; and Construction and Extraction.[43]

  - Immigrants also participated disproportionately in the following sectors: Production; Life, Physical, and Social Science; Personal Care and Service; Food Preparation and Serving; Transportation and Material Moving; Healthcare Support; and Architecture and Engineering.[44]

  - Among other sectors, more than 1 in 10 workers were immigrants in jobs related to Installation, Maintenance, and Repair; Healthcare Practitioner and Technician; Sales and Related; Business and Financial Operations; Management; Arts, Design, Entertainment, Sports, and Media; Office and Administrative Support; and Education, Training, and Library.[45]

- Immigrant workers participated in many occupations that were important during the COVID-19 pandemic and resulting lockdowns.

  - Tabulation of data from the 2018 ACS by the MPI shows that immigrants comprised a relatively large share of workers in industries "vital to the coronavirus response," such as Manufacturing: Food, medicine, soap/cleaning agents (where foreign-born workers comprised 26 percent of all workers in that industry); Agriculture, Forestry, Fishing, and Hunting (27 percent); Transportation: Bus, metro, and taxi drivers (34 percent); and Scientific Research and Development (22 percent).[46]

  - Similarly, the MPI estimates that in 2018, "[i]mmigrants made up 17 percent of the overall workforce, but higher shares of workers in the healthcare field, including 29 percent of physicians and 22 percent of nursing assistants. In manufacturing industries, immigrants comprised 39 percent of food processing workers and 50 percent of all packers and packagers."[47]

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43 Cohen, Abby Joseph and Michael Hao Wu, "A Closer Look: Immigration and the U.S. Workforce," Goldman Sachs Research, August 13, 2019, Exhibit 6.

44 Cohen, Abby Joseph and Michael Hao Wu, "A Closer Look: Immigration and the U.S. Workforce," Goldman Sachs Research, August 13, 2019, Exhibit 6. Specifically, immigrant participation rates in these sectors exceeded the overall immigrant labor force participation rate of 17.1 percent for the 2016-2018 period.

45 Cohen, Abby Joseph and Michael Hao Wu, "A Closer Look: Immigration and the U.S. Workforce," Goldman Sachs Research, August 13, 2019, Exhibit 6.

46 Gelatt, Julia, "Immigrant Workers: Vital to the U.S. COVID-19 Response, Disproportionately Vulnerable," Migration Policy Institute, April 2020, p. 2.

47 Gelatt, Julia and Muzaffar Chishti, "COVID-19's Effects on U.S. Immigration and Immigrant Communicties, Two Years On," Migration Policy Institute, June 2022, p. 2.

ii. Immigrants in Science, Technology, Engineering, and Mathematics (STEM)

- Workers in STEM fields make important contributions to the U.S. economy.[48] According to BLS projections, employment in STEM occupations is expected to grow by 10.8 percent between 2022 and 2032, while non-STEM occupations are only expected to grow by 2.3 percent over the same time period.[49]
- Immigrants make up a substantial portion of the STEM workforce in the United States. According to an analysis of 2000, 2010, and 2019 ACS data by the American Immigration Council:
  - As of 2019, nearly one-quarter (23.1 percent) of all STEM workers in the United States were immigrants.[50]
  - "Foreign-born workers make up a growing share of the STEM workforce in different occupational groups."[51]
  - The largest increase in the foreign-born share of the workforce over the 2000 to 2019 period was in computer- and mathematics-related occupations. The share of foreign-born workers in these occupations increased from 17.7 percent in 2000 to 26.1 percent in 2019.[52]

iii. Immigrants in the Health Sector

- Healthcare professionals are, and are projected to be, in high demand.[53]
  - According to a 2023 report published by the BLS, the "health care and social assistance sector is projected to not only grow most rapidly of any sector, but it is also projected to create about 45 percent of all

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48 According to a 2020 study conducted by a consortium of scientific professional institutions, "STEM support[ed] two-thirds of U.S. jobs (67 percent), 69 percent of U.S. GDP and $2.3 trillion in annual federal tax revenue" in 2017. The analysis "consider[ed] all jobs that rely heavily on science, technology, engineering and math, regardless of the level of educational attainment required of the employee." According to the authors, the study "assess[ed] the economic impact of science on the U.S. economy and for ten states" by using data on employment, sales output, gross domestic product, and labor income in an IMPLAN model, which is "an input-output [] model of national or regional economics that shows the transactions between households, different industries and the government." "STEM and the American Workforce: An Inclusive Analysis of the Jobs, GDP and Output Powered by Science and Engineering," American Association for the Advancement of Science, 2020, pp. 2-3, 8.

49 "Employment Projections: Employment in STEM Occupations," U.S. Bureau of Labor Statistics, April 17, 2024.

50 "Fact Sheet: Foreign-Born STEM Workers in the United States," American Immigration Council, June 2022, p. 5. Statistic is based on the American Immigration Council's analysis of microdata from the 2019 ACS.

51 "Fact Sheet: Foreign-Born STEM Workers in the United States," American Immigration Council, June 2022, p. 7. Statistics are based on the American Immigration Council's analysis of microdata from the 2000, 2010, and 2019 ACS.

52 "Fact Sheet: Foreign-Born STEM Workers in the United States," American Immigration Council, June 2022, p. 7. Statistics are based on the American Immigration Council's analysis of microdata from the 2000, 2010, and 2019 ACS.

53 "Employment Projections -- 2022-2032," U.S. Bureau of Labor Statistics, September 6, 2023, p. 2; Shakya, Shishir, "Understanding the Role of Immigrants in the U.S. Health Sector: Employment Trends from 2007-21," Baker Institute for Public Policy, January 3, 2024.

the projected job gains from 2022 to 2032."[54] Given the need to replace retiring workers and the need for increased care of the aging population, the BLS projects that on average, there will be approximately 1.8 million job openings in healthcare occupations each year from 2022 to 2023.[55]

- According to a report published by GlobalData Plc. for the Association of American Medical Colleges (AAMC) in 2024, a shortfall of at least 20,200 primary care physicians is projected through 2036.[56]

- Foreign-born physicians and other healthcare workers make up a substantial portion of healthcare workers.
  - An analysis of the 2021 ACS by the MPI shows that immigrants make up 18.2 percent of all health-care workers (versus 17.2 percent of all employed workers).[57] Within healthcare occupations, immigrants make up 26.5 percent of physicians and surgeons, 39.8 percent of home health aides, 28.1 percent of personal care aides, and 21.4 percent of nursing assistants.[58]
  - Grabowski et al. (2023) find that increased immigration has a "strong positive effect on the supply of both lower-skilled [certified nursing assistant] and higher-skilled [registered nurse] hours provided to nursing home residents."[59] The authors also find that increased immigration led to improved patient care, measured by a "normalized composite quality score of nursing home-reported health outcomes[.]"[60]
  - Similarly, Jun and Grabowski (2024) find that "much of the certified nursing assistant (CNA) workforce in US nursing homes is filled by

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54 "Employment Projections -- 2022-2032," U.S. Bureau of Labor Statistics, September 6, 2023, p. 2.

55 "Occupational Outlook Handbook - Healthcare Occupation," U.S. Bureau of Labor Statistics, April 17, 2024, *available at* https://www.bls.gov/ooh/healthcare/home.htm, *accessed* August 12, 2024; "Employment Projections -- 2022-2032," U.S. Bureau of Labor Statistics, September 6, 2023, p. 2.

56 The report uses a variety of data sources, such as the AAMC 2022 National Sample Survey of Physicians, to "project[] future physician supply by considering trends in key physician supply determinants and the sensitivity of supply projections to changes in these determinants. The demand projections reflect changing demographics as the population grows and ages, the rapidly growing supply of advanced practice registered nurses (APRNs) and physician associates (PAs), and other important trends in health care, such as a growing emphasis on achieving population health goals." Dall, Tim et al., "The Complexities of Physician Supply and Demand: Projections from 2021 to 2036," Association of American Medical Colleges, March 2024, pp. v, 9.

57 Batalova, Jeanne, "Immigrant Health-Care Workers in the United States," Migration Policy Institute, April 7, 2023.

58 Batalova, Jeanne, "Immigrant Health-Care Workers in the United States," Migration Policy Institute, April 7, 2023.

59 The authors used 2000–2018 ACS data to measure annual immigration flows, 2006–2018 data from the Certification and Survey Provider Enhanced Reports (CASPER) to measure nursing home census and staffing levels, and the Minimum Data Set (MDS) and Medicare enrollment data from the Master Beneficiary Summary File (MBSF) to assess health outcomes for nursing home residents. Grabowski, David C., Jonathan Gruber, and Brian McGarry, "Immigration, the Long-Term Care Workforce, and Elder Outcomes in the U.S.," NBER Working Paper Series, February 2023, No. 30960, pp. 4, 11-12.

60 Grabowski, David C., Jonathan Gruber, and Brian McGarry, "Immigration, the Long-Term Care Workforce, and Elder Outcomes in the U.S.," NBER Working Paper Series, February 2023, No. 30960, p. 5.

immigrant labor" and, "[d]uring the first two years of the COVID-19 pandemic, the share of immigrant CNAs employed by nursing homes surged […]. Staffing shortages observed during the pandemic would have been worse if not for foreign-born CNAs remaining in the workforce."[61] Furthermore, the authors find that "nursing homes in regions with a higher share of immigrant CNAs were associated with more direct care staff hours per resident day and better nursing home quality performance."[62]

- Foreign-born workers also make up a substantial portion of workers in other health sector jobs. In the field of pharmaceutical manufacturing, an analysis of the 2018 ACS by the New American Economy Research Fund shows that:
  - "The more than 132,000 immigrants working in the [pharmaceutical manufacturing] industry made up a quarter of the total workforce in 2018."[63]
  - "In California and New Jersey, more than two in five workers in [the pharmaceutical manufacturing] industry were immigrants."[64]
  - In 2018, over half of immigrants working in the pharmaceutical manufacturing industry held an advanced degree, compared to less than one-quarter of native-born U.S. employees, and about one-fifth of these immigrants were scientists.[65]
  - More than 2 in 5 life scientists (43.2 percent) and 1 in 3 physical scientists (36.1 percent) in hospitals were immigrants in 2018.[66]
  - Nearly 149,000 immigrants made up about 24 percent of the workforce in the medical equipment and supplies manufacturing industry in 2018.[67]

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61 Jun, Hankyung and David C. Grabowski, "Nursing Home Staffing: Share of Immigrant Certified Nursing Assistants Grew as U.S.-Born Staff Numbers Fell, 2010-21," Health Affairs, 2014, Vol. 43, No. 1, pp. 108-117, p. 108.

62 Jun, Hankyung and David C. Grabowski, "Nursing Home Staffing: Share of Immigrant Certified Nursing Assistants Grew as U.S.-Born Staff Numbers Fell, 2010-21," Health Affairs, 2014, Vol. 43, No. 1, pp. 108-117, pp. 108-109. The authors analyzed the 2000-2021 ACS ("information on foreign-born status and occupation"), the Minimum Data Set 3.0 from the Centers for Medicare and Medicaid Services ("information on resident demographics and variables representing nursing home quality for the period 2010-18"), and LTCFocus ("information on nursing home characteristics […] for the period 2010-18").

63 "COVID-19: The Role of Immigrants in America's Biomedical Industry," New American Economy, April 23, 2020, *accessed* August 9, 2024.

64 "COVID-19: The Role of Immigrants in America's Biomedical Industry," New American Economy, April 23, 2020, *accessed* August 9, 2024.

65 "COVID-19: The Role of Immigrants in America's Biomedical Industry," New American Economy, April 23, 2020, *accessed* August 9, 2024.

66 "COVID-19: The Role of Immigrants in America's Biomedical Industry," New American Economy, April 23, 2020, *accessed* August 9, 2024.

67 "COVID-19: The Role of Immigrants in America's Biomedical Industry," New American Economy, April 23, 2020, *accessed* August 9, 2024.

iv. Immigrants in Agriculture and Food Supply

- According to the United States Department of Agriculture (USDA), the "[a]griculture, food, and related industries" represented approximately 5.6 percent of U.S. GDP in 2023.[68]
- According to an analysis of ACS data by the MPI, between 2017 and 2021:
  - Immigrants represented 21 percent of all workers in the U.S. food supply chain, defined as "jobs growing, harvesting, processing, and selling food in the United States[.]"[69]
  - In certain parts of the food supply chain, immigrants comprised an even larger share of workers: "28% of agriculture workers[;] 25% of workers in food production"; "22% of grocery & farm product wholesalers"; "31% of crop production workers"; "35% of meat processing industry workers[;] 34% of workers in commercial bakeries[;] 30% of fruit and vegetable preserving industry workers[;] [and] 25% of workers in the seafood & other miscellaneous foods processing industry[.]"[70]
- The same analysis of ACS data by the MPI finds substantial variation in the immigrant share of the workforce depending on geography and the part of the food supply chain being analyzed. For example, immigrants comprised "65% of California's agriculture workers[,] 69% of Alaska's seafood & other miscellaneous foods processing workers[,] [and] 64% of Nebraska's meat processing workers."[71]
- In the United States, the H-2A visa program is the primary agricultural visa available to American farms.[72]
  - According to the U.S. Citizenship and Immigration Services (USCIS), a U.S. employer (or a group of U.S. agricultural producers) must petition on a prospective worker's behalf and show, for example, that the job "is of a temporary or seasonal nature"; "there are not enough U.S. workers who are able, willing, qualified, and available to do the

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68 "Chart Detail," U.S. Department of Agriculture Economic Research Service, *available at* https://www.ers.usda.gov/data-products/chart-gallery/gallery/chart-detail/?chartId=58270, *accessed* August 5, 2024. Statistics from United States Department of Agriculture (USDA), Economic Research Service, which used data from the U.S. Department of Commerce, Bureau of Economic Analysis, Value Added by Industry, March 28, 2024 release. According to the USDA, "sectors related to agriculture rely on agricultural inputs to contribute added value to the economy [and] include food and beverage manufacturing; food and beverage stores; food services and eating/drinking places; textiles, apparel, and leather products; and forestry and fishing."

69 "The Essential Role of Immigrants in the U.S. Food Supply Chain (Updated)," Migration Policy Institute, April 2020, *available at* https://www.migrationpolicy.org/print/16740, *accessed* July 22, 2024. According to MPI, these statistics are calculated from a tabulation of 2017-2021 ACS data.

70 "The Essential Role of Immigrants in the U.S. Food Supply Chain (Updated)," Migration Policy Institute, April 2020, *available at* https://www.migrationpolicy.org/print/16740, *accessed* July 22, 2024.

71 "The Essential Role of Immigrants in the U.S. Food Supply Chain (Updated)," Migration Policy Institute, April 2020, *available at* https://www.migrationpolicy.org/print/16740, *accessed* July 22, 2024.

72 "Immigration and Agriculture," New American Economy, August 16, 2021, *accessed* August 5, 2024.

temporary work"; and "employing H-2A workers will not adversely affect the wages and working conditions of similarly employed U.S. workers."[73]

- According to the USDA, "the number of jobs certified to be filled by H-2A workers increased from 75,000 in 2010 to 275,000 in 2020."[74] In 2020, "H-2A workers accounted for an estimated 10 percent of the average employment on U.S. crop farms."[75]
- According to an analysis of Department of Labor data by researchers at the Rice University Baker Institute for Public Policy, since 2020, "[t]he steady decline in the supply of native-born and undocumented farmworkers" has led to increased demand for legal foreign agricultural workers, and the number of visas issued through the H-2A program has "experienced rapid growth since its inception."[76] From 2021-2023, the top 5 states employing H-2A workers were Florida, California, Georgia, Washington, and North Carolina.[77]

C. Immigrants in the Military

- Immigrants have long served in the U.S. military.[78]
  - Naturalized citizens and LPRs can join the military.[79]
  - According to data from the Department of Defense, in fiscal year 2016, 3.5 percent of non-prior-service enlisted accessions were non-citizens.[80]

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73 "H-2A Temporary Agricultural Workers," U.S. Citizenship and Immigration Services, *available at* https://www.uscis.gov/working-in-the-united-states/temporary-workers/h-2a-temporary-agricultural-workers, *accessed* July 22, 2024.

74 Castillo, Narcelo, Phillip Martin, and Zachariah Rutledge, "The H-2A Temporary Agricultural Worker Program in 2020," U.S. Department of Agriculture, August 2022, p. iii. Statistics calculated using Department of Labor data from case disclosure files.

75 Castillo, Narcelo, Phillip Martin, and Zachariah Rutledge, "The H-2A Temporary Agricultural Worker Program in 2020," U.S. Department of Agriculture, August 2022, p. i.

76 Gutiérrez-Li, Alejandro, "Feeding America: How Immigrants Sustain Us Agriculture," Baker Institute for Public Policy, July 19, 2024, *available at* https://www.bakerinstitute.org/research/feeding-america-how-immigrants-sustain-us-agriculture, *accessed* August 5, 2024. Statistics calculated using Department of Labor data. According to the analysis, the annual number of H-2A visas issued has increased every year from 2011 onward.

77 Gutiérrez-Li, Alejandro, "Feeding America: How Immigrants Sustain Us Agriculture," Baker Institute for Public Policy, July 19, 2024, *available at* https://www.bakerinstitute.org/research/feeding-america-how-immigrants-sustain-us-agriculture, *accessed* August 5, 2024. Statistics calculated using Department of Labor data.

78 Batalova, Jeanne, "Immigrant Veterans in the United States," Migration Policy Institute, May 9, 2024.

79 "Requirements to Join the U.S. Military," USA.gov, *available at* https://www.usa.gov/military-requirements, *accessed* August 12, 2024.

80 "Population Representation in the Military Services: Fiscal Year 2016 Summary Report," U.S. Department of Defense, 2016, p. 41.

- According to USCIS:
  - Since 2002, more than 170,000 U.S. military members have been naturalized.[81]
  - Between fiscal years 2019 and 2023, nearly two-thirds of military naturalizations were associated with the Army (including National Guard and Reserves), and nearly one-fifth were associated with the Navy.[82]
  - Between fiscal years 2019 and 2023, the top 5 countries of birth for service members who received military naturalizations were the Philippines, Jamaica, Mexico, Nigeria, and China.[83]
- From 2008 to 2017, the Department of Defense also authorized the Military Accessions Vital to National Interest (MAVNI) program, which "allowed certain individuals who were not U.S. citizens, nationals, or lawful permanent residents to enlist if they had skills considered vital to the national interest," such as specific language and culture capabilities or healthcare qualifications.[84] The annual program cap ranged from 1,000 to 5,000 recruits.[85]

- Non-citizens who serve or have served in the military tend to have similar educational attainment to that of citizens.
  - According to the Department of Defense, in fiscal year 2016, 66.1 percent of non-citizen recruits were "high-quality" (defined as having a Tier 1 education credential and a score in the 50th percentile or above on the Armed Forces Qualification Test) versus 54.3 percent of citizen recruits.[86]

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81 "Military Naturalization Statistics," U.S. Citizenship and Immigration Services, *available at* https://www.uscis.gov/military/military-naturalization-statistics, *accessed* August 12, 2024.

82 "Military Naturalization Statistics," U.S. Citizenship and Immigration Services, *available at* https://www.uscis.gov/military/military-naturalization-statistics, *accessed* August 12, 2024.

83 "Military Naturalization Statistics," U.S. Citizenship and Immigration Services, *available at* https://www.uscis.gov/military/military-naturalization-statistics, *accessed* August 12, 2024.

84 "Military Naturalization Statistics," U.S. Citizenship and Immigration Services, *available at* https://www.uscis.gov/military/military-naturalization-statistics, *accessed* August 12, 2024; "Military Accessions Vital to National Interest (Mavni) Recruitment Pilot Program," U.S. Department of Defense.

85 "Military Accessions Vital to National Interest (Mavni) Recruitment Pilot Program," U.S. Department of Defense; "Military Accessions Vital to National Interest (Mavni) Program Eligibility," U.S. Department of Defense, November 2014.

86 "Population Representation in the Military Services: Fiscal Year 2016 Summary Report," U.S. Department of Defense, 2016, pp. 16, 26, 42. According to the Department of Defense, "Tier 1 recruits are primarily high school *diploma* graduates, but they also include people with educational backgrounds beyond high school, as well as those who have earned adult education diplomas, those with one semester of college, home schoolers, and those who have attended virtual or distance learning and adult or alternative schools."

- An analysis of the 2022 ACS by the MPI finds that "approximately 36 percent of immigrant veterans had at least a bachelor's degree, compared to 31 percent of native-born veterans."[87]

- Non-citizens enlisted in the military tend to have longer enlistments than U.S. citizens. McIntosh et al. (2011) find that for "FY99–08 enlisted accessions into the Air Force, Army, Navy, and Marine Corps," "non-citizen recruits attrite at substantially lower rates than citizen recruits," with 18.2 percent of non-citizen recruits versus 31.9 percent of citizen recruits leaving the military within 4 years.[88]

- Immigrants have made up a larger share of the veteran population in recent years. According to the MPI:

  - "[I]mmigrants comprise a much larger share of the overall veteran population than in the past. In 1990, about 2 percent of U.S. veterans were foreign born; [as of 2022] that figure is 4.5 percent, with significant gains happening since 2010."[89]

  - "Mexican and Filipino immigrants comprised the largest groups of foreign-born veterans in 2022, representing 15 percent and 11 percent (or 111,000 and 84,000 individuals), respectively."[90]

D. Immigrants as Employers and Entrepreneurs

- Economic research finds that immigrants play an important role as employers and entrepreneurs.

  - Azoulay et al. (2022) study the role of immigrants in entrepreneurship, and "the[ir] findings suggest that immigrants appear to 'create jobs' (expand labor demand) more than they 'take jobs' (expand labor supply) in the US economy."[91] Furthermore, "immigrants play[] relatively large roles as employers rather than employees, compared to US-born individuals."[92]

  - Brown et al. (2020) analyze the role of immigrant entrepreneurs in the high-tech sector based on the U.S. Census Bureau's Annual Survey of

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87 Batalova, Jeanne, "Immigrant Veterans in the United States," Migration Policy Institute, May 9, 2024.

88 McIntosh, Molly F., Seema Sayala, and David Gregory, "Non-Citizens in the Enlisted U.S. Military," CNA Analysis & Solutions, November 2011, pp. 23, 26.

89 Batalova, Jeanne, "Immigrant Veterans in the United States," Migration Policy Institute, May 9, 2024. Statistics based on the MPI's tabulation of the 1990 and 2000 decennial census, as well as the 2010 and 2022 ACS.

90 Batalova, Jeanne, "Immigrant Veterans in the United States," Migration Policy Institute, May 9, 2024, Figure 2.

91 Azoulay, Pierre, Benjamin F. Jones, J. Daniel Kim, and Javier Miranda, "Immigration and Entrepreneurship in the United States," American Economic Review: Insights, September 2, 2020, Vol. 4, No. 1, pp. 71-88, pp. 71-72.

92 Azoulay, Pierre, Benjamin F. Jones, J. Daniel Kim, and Javier Miranda, "Immigration and Entrepreneurship in the United States," American Economic Review: Insights, September 2, 2020, Vol. 4, No. 1, pp. 71-88, p. 72.

Entrepreneurs and find "consistently stronger innovation performance of immigrant-owned compared to native-owned firms."[93]

[93] Brown, J. David, John S. Earle, Mee Jung Kim, and Kyung Min Lee, "Immigrant Entrepreneurs and Innovation in the U.S. High-Tech Sector," *The Foles of Immigrants and Foreign Students in U.S. Science, Innovation, and Entrepreneurship*, edited by Ganguli, Ina, Shulamit Kahn, and Megan MacGarvie, University of Chicago Press, p. 158.

II. Impact of Immigrants on Entrepreneurial Activity, Innovation, and Productivity

KEY TAKEAWAYS

- Many of the most valuable U.S. companies are led by foreign-born CEOs. As of 2023, 22 percent of Fortune 100 CEOs were born outside the United States.
- More than half of America's startup companies valued at $1 billion have immigrant founders, and many key members of management or product development teams in these startups are immigrants.
- Immigrants are more likely to start new businesses compared to native-born Americans.
- Many prominent American innovators, past and present, have close immigrant roots. As of 2023, almost half of Fortune 500 firms were founded by either an immigrant or a child of immigrants.
- The immigrant share of entrepreneurial activity in the United States is particularly high in sectors related to technology and engineering.
- Immigrant-owned firms have a substantial impact on the U.S. economy, generating $110 billion in business income in 2022.
- Academic research shows that there is a positive spillover effect of immigrant inventors and college graduates. Innovation from the native-born U.S. population increases with expansions of the H-1B program and the associated inflow of new high-skilled workers.
- The Congressional Budget Office (CBO) estimates in its Economic Outlook for 2024 to 2034 that, in comparison to its 2023 estimations, the U.S. labor force will have an additional 5.2 million people in 2033 as a result of higher net immigration. The CBO estimates that this change in the labor force will translate into about a $7 trillion increase in U.S. gross domestic product (GDP) and about a $1 trillion increase in revenues between 2024 and 2034.

A. Contribution of Immigrants to Entrepreneurial Activity in the United States

Immigrants are a vital part of new business growth and entrepreneurship in the United States.[94] This section highlights immigrants and statistics on immigrants in prominent leadership positions, provides an overview of empirical studies on the prevalence of entrepreneurship and ownership in immigrant populations, and presents data on business ownership of immigrants. Overall, studies and analyses show that immigrant entrepreneur activity and business ownership have been increasing over the past decade and have had substantial positive impact on the U.S. economy.

i. Immigrants in Leadership Positions

- Many of the most valuable U.S. companies are led by foreign-born CEOs. For example, a 2022 Crunchbase article reports that:
  - Nvidia, Google, Microsoft, and Tesla—among the most valuable public U.S. companies—are led by foreign-born CEOs.[95]
  - The 4 most valuable private, venture-backed U.S. companies in 2022—SpaceX, Stripe, Instacart, and Databricks—were founded and led by CEOs who were born outside the United States.[96]
- Foreign-born CEOs also make up a notable share of Fortune 500 and Fortune 100 companies:
  - As of 2016, "10.8 percent of Fortune 500 CEOs were born outside of the U.S."[97]
  - As of 2023, 22 percent of Fortune 100 CEOs were born outside of the United States.[98]
- A 2022 policy brief from the National Foundation for American Policy (NFAP) finds that as of 2022, "[i]mmigrants have started more than half (319 of 582, or 55%)

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94 *See, e.g.*, "Entrepreneurship and Immigrants in America," New American Economy, *available at* https://www.newamericaneconomy.org/issues/entrepreneurship/page/60/, *accessed* July 23, 2024. *See also*, "The Economic Case for Welcoming Immigrant Entrepreneurs," Ewing Marion Kauffman Foundation, September 8, 2015.

95 Glasner, Joanna, "The 4 Most Valuable U.S. Unicorns Have Immigrant CEOs. So Do 4 of the 7 Top Public Companies," Crunchbase, February 15, 2022, *available at* https://news.crunchbase.com/startups/immigrant-ceos-founders-unicorns-spacex-stripe-instacart/, *accessed* July 23, 2024.

96 Glasner, Joanna, "The 4 Most Valuable U.S. Unicorns Have Immigrant CEOs. So Do 4 of the 7 Top Public Companies," Crunchbase, February 15, 2022, *available at* https://news.crunchbase.com/startups/immigrant-ceos-founders-unicorns-spacex-stripe-instacart/, *accessed* July 23, 2024.

97 "Immigrant CEOs of the Fortune 500," Boardroom Insiders, 2016.

98 The identification of companies headed by immigrant CEOs is based on research conducted by Analysis Group using publicly available sources and the list of CEO names available from 50Pros. All Fortune 100 CEOs whose country of birth could not be verified through publicly available sources are conservatively categorized as nonimmigrants. 50Pros, Fortune 500 Data, *accessed* July 26, 2024, *available* at https://web.archive.org/web/20240610132501/https://www.50pros.com/fortune500.

of America's startup companies valued at $1 billion dollars or more." The policy brief refers to these billion-dollar companies as "unicorns."[99]

  - Research summarized in the policy brief notes that almost 80 percent of the unicorn companies have an immigrant founder or an immigrant in a key leadership role, such as CEO or vice president of engineering.[100]

- The American Immigration Council, a nonprofit, nonpartisan organization and advocacy group for immigration, reported that in 2023, 44.8 percent of Fortune 500 firms were founded by either an immigrant or the child of immigrants.[101]

ii. Immigrant Entrepreneurship

Empirical studies indicate that immigrants are more likely to start new businesses than the native-born U.S. population,[102] particularly in technology-related sectors of the economy.

2 measures are commonly used in the economic literature to study immigrant entrepreneurship in the United States: immigrant share of business owners and new entrepreneurship rate of immigrants.[103]

a) Immigrant Share of Business Owners

Empirical studies show that immigrants are overrepresented among business owners in the United States compared to their share in the overall U.S. labor force. For example, according to the New American Economy, a bipartisan research and advocacy organization, in 2019, 21.7 percent of entrepreneurs in the United States were immigrants, despite making up only 17.1 percent of the U.S. labor force.[104] Studies also

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99 Anderson, Stuart, "Immigrant Entrepreneurs and U.S. Billion-Dollar Companies," National Foundation for American Policy, July 2022, p. 1 and Appendix Table 10. The policy brief examines a list of 582 U.S. startup companies valued at over $1 billion (as of May 2022) that have yet to become publicly traded on the U.S. stock market and are tracked by the firm CB Insights. The policy brief also uses a mixture of company-provided information, company websites, CrunchBase, LinkedIn, and Craft to identify companies founded or co-founded by immigrants. For more information, *see* Appendix Table 10 of the cited article.

100 Anderson, Stuart, "Immigrant Entrepreneurs and U.S. Billion-Dollar Companies," National Foundation for American Policy, July 2022, p. 1 and Appendix Table 10. The policy brief uses a mixture of company-provided information, company websites, CrunchBase, LinkedIn, and Craft to identify companies founded or co-founded by immigrants. For more information, *see* Appendix Table 10 of the cited article.

101 "New American Fortune 500 in 2023," American Immigration Council, August 29, 2023, *available at* https://www.americanimmigrationcouncil.org/research/new-american-fortune-500-2023, *accessed* July 24, 2024.

102 Fairlie, Robert W., "National Report on Early-Stage Entrepreneurship in the United States: 2021," Kauffman Indicators of Entrepreneurship, March 2022, p. 10. This study finds that the rate of new entrepreneurs was 0.58 percent for immigrants compared to 0.32 percent for native-born Americans using the 2021 Current Population Survey.

103 *See, e.g.*, Fairlie, Robert W. and Magnus Lofstrom, "Immigration and Entrepreneurship," *Handbook of the Economics of International Migration*, Vol. 1B, edited by Chiswick, Barry R. and Paul W. Miller, p. 880. *See also,* Fairlie, Robert W., "Estimating the Contribution of Immigrant Business Owners to the U.S. Economy," Small Business Administration, Office of Advocacy, November 2008, pp. 1-2, 10, 19.

104 "Entrepreneurship and Immigrants in America," New American Economy, *available at* https://www.newamericaneconomy.org/issues/entrepreneurship/page/60/, *accessed* July 23, 2024.

indicate that the immigrant share among U.S. entrepreneurs has been growing. For example:

- Chodavadia et al. (2024), in a National Bureau of Economic Research (NBER) working paper analyzing data from the Survey of Business Owners (SBO), the Annual Survey of Entrepreneurs (ASE), and the Annual Business Survey (ABS) over the period 2007-2019, and the Longitudinal Employer-Household Dynamics (LEHD) database over the period 2003-2020, "provide updated statistics on the share of US entrepreneurs who are immigrants."[105] The study finds that although there are differences in the share of immigrant entrepreneurship across these data sources, there has been "an upward trend over time in [the] share of immigrant entrepreneurship" over the past 2 decades.[106]
- Data reported by the Ewing Marion Kauffman Foundation, "a private, nonpartisan foundation that aims to foster economic independence by advancing educational achievement and entrepreneurial success," on "trends in the share of new entrepreneurs in the United States between 1996 and 2021 by demographic groups" show that "[i]n the last 25 years, the share of new entrepreneurs who are foreign-born has more than doubled."[107] In 2021, 28.2 percent of new entrepreneurs were immigrants compared to 13.3 percent in 1996.[108, 109]

An analysis of the leadership of Fortune 100 companies shows significant presence of immigrants. In the 2023 list of Fortune 100 companies, 22 percent were headed by foreign-born CEOs and 42 percent of them were founded by immigrants or children of immigrants (*see* **Table 2.1**).[110]

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105 Chodavadia, Saheel A., Sari Pekkala Kerr, William R. Kerr, and Louis J. Maiden, "Immigrant Entrepreneurship: New Estimates and a Research Agenda," NBER Working Paper Series, May 2024, No. 32400, pp. 2, 14-15, 28-29. Chodavadia et al. "define immigrants as persons born outside the United States and entrepreneurs as owners of young firms (in business for five years or fewer)."

106 Chodavadia, Saheel A., Sari Pekkala Kerr, William R. Kerr, and Louis J. Maiden, "Immigrant Entrepreneurship: New Estimates and a Research Agenda," NBER Working Paper Series, May 2024, No. 32400, p. 14. This is based on micro-data from the SBO, ASE, and ABS over the period 2007-2019, and LEHD over the period 2003-2020. Chodavadia et al. "define immigrants as persons born outside the United States and entrepreneurs as owners of young firms (in business for five years or fewer)."

107 "Kauffman Foundation," Forbes, *available at* https://www.forbes.com/sites/kauffman/, *accessed* August 24, 2024; "Who Is the Entrepreneur? New Entrepreneurs in the United States, 1996-2021," Ewing Marion Kauffman Foundation, October 2022, pp. 1, 4-5. This is based on data compiled by Robert Fairlie using a special panel of the Current Population Survey (CPS).

108 "Foreign-Born Workers: Labor Force Characteristics -- 2021," U.S. Bureau of Labor Statistics, May 28, 2022, p. 1.

109 "Who Is the Entrepreneur? New Entrepreneurs in the United States, 1996-2021," Ewing Marion Kauffman Foundation, October 2022, pp. 4-5. This is based on data compiled by Robert Fairlie using a special panel of the CPS.

110 The 2023 list of Fortune 100 companies is from Fortune. "Fortune 500," Fortune, 2023, *available at* https://fortune.com/ranking/fortune500/2023/search/, *accessed* August 27, 2024. The companies headed by immigrant CEOs are based on the research conducted by Analysis Group using publicly available sources and the list of CEO names available from 50Pros. 50Pros, Fortune 500 Data, 2023, *accessed* July 26, 2024. The companies founded by immigrants or children of immigrants are based on the 2023 data from American Immigration Council. "New American Fortune 500 in 2023," American Immigration Council, August 29, 2023, *available at* https://www.americanimmigrationcouncil.org/research/new-american-fortune-500-2023, *accessed* July 24, 2024.

Table 2.1: 2023 U.S. Fortune 100 Companies Headed by Immigrant CEOs or Founded by Immigrants or Children of Immigrants

	Companies Headed by Immigrant CEOs	Companies Founded by Immigrants or Children of Immigrants
Share of Fortune 100 Companies	22%	42%
Fortune 100 Revenues	$2.5 trillion	$5.1 trillion
Fortune 100 Employees	3.5 million	7.9 million

Notes:
[1] The 2023 list of Fortune 100 companies and their revenues for the fiscal year ended on or before December 31, 2022, are from Fortune.
[2] The companies headed by immigrant CEOs are based on the research conducted by Analysis Group using publicly available sources and the list of CEO names available from 50Pros.
[3] All Fortune 100 CEOs whose country of birth could not be verified through publicly available sources are conservatively categorized as nonimmigrants.
[4] The companies founded by immigrants or children of immigrants are based on the 2023 data from American Immigration Council.

Sources:
[1] "Fortune 500," Fortune, 2023, *available at* https://fortune.com/ranking/fortune500/2023/search/, *accessed* August 27, 2024.; "Methodology for Fortune 500," Fortune, 2023, *available at* https://fortune.com/franchise-list-page/fortune-500-methodology-2023/, *accessed* August 27, 2024.
[2] 50Pros, Fortune 500 Data, 2023, *available at* https://web.archive.org/web/20240714160844/https://www.50pros.com/fortune500, *accessed* July 26, 2024.
[3] "New American Fortune 500 in 2023," American Immigration Council, August 29, 2023, *available at* https://www.americanimmigrationcouncil.org/research/new-american-fortune-500-2023, *accessed* July 24, 2024.

Fortune 100 companies with foreign-born CEOs or founded by immigrants or their children make substantial contributions to the U.S. economy. For example, as shown in **Table 2.1**, in the 2022 fiscal year:

- Fortune 100 companies with foreign-born CEOs generated around $2.5 trillion in revenue, and those founded by immigrants or children of immigrants generated around $5.1 trillion in revenue. For reference, these values are greater than the 2022 gross domestic product (GDP) of many developed countries, including Canada, Italy, and Australia.[111]
- Fortune 100 companies with foreign-born CEOs employed around 3.5 million people worldwide and Fortune 100 companies founded by immigrants or children of immigrants employed around 7.9 million people worldwide. Both of these

[111] World Bank, Gross Domestic Product, available at https://databankfiles.worldbank.org/public/ddpext_download/GDP.pdf.

numbers are larger than the entire population of many U.S. states, including Arkansas, Iowa, Nevada, and Utah in 2022.[112]

Research shows that the immigrant share of entrepreneur activity in the United States is particularly high in sectors related to technology and engineering. For example:

- Chodavadia et al. (2024) show that immigrants accounted for 40.8 percent of founders of unicorn startups (i.e., startups valued at $1 billion or more) and 44.5 percent of founders of leading artificial intelligence startups in 2022, and 18.9 percent of founders of new VC-backed startups in 2015-2019.[113]
- Kerr and Kerr (2020), in a published paper in the journal *Research Policy*, use the 2007 and 2012 SBO to study immigrant entrepreneurship in America.[114] The authors find that immigrant-owned startups comprised 29 percent of new high-tech firms in 2012. They also show that the share of immigrant entrepreneurship among high-tech firms is more than 60 percent in San Jose/Silicon Valley and about 50 percent in Los Angeles, Miami, and New York City.[115]
- Wadhwa et al. (2007), in a report published by the University of California Berkeley and Duke University, "quantify the economic contributions of immigrant entrepreneurs to the U.S. economy."[116] The authors use a database on U.S. companies with more than $1 million dollar in sales to identify engineering and technology companies founded in the U.S. between 1995-2005.[117, 118] To evaluate whether the founders of these companies were immigrants, 15 research

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112 U.S. Census Bureau, Annual Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for the United States, States, District of Columbia, and Puerto Rico: April 1, 2020 to July 1, 2023.

113 Chodavadia, Saheel A., Sari Pekkala Kerr, William R. Kerr, and Louis J. Maiden, "Immigrant Entrepreneurship: New Estimates and a Research Agenda," NBER Working Paper Series, May 2024, No. 32400, p. 28. The immigrant share among founders of new startups receiving venture capital investment during 2015-2019 is based on modified calculations using data from Amornsiripanitch et al. (2023). Amornsiripanitch, Natee, Paul A. Gompers, George Hu, and Kaushik Vasudevan, "Getting Schooled: The Role of Universities in Attracting Immigrant Entrepreneurs," NBER Working Paper Series, May 2021, No. 28773. Immigrant founder shares for unicorn and leading AI startup shares are based on modified calculations using data from Anderson and NFAP (2022, 2023). Anderson, Stuart, "Immigrant Entrepreneurs and U.S. Billion-Dollar Companies," National Foundation for American Policy, July 2022; Anderson, Stuart, "AI and Immigrants," National Foundation for American Policy, June 2023.

114 Kerr, Sari Pekkala and William R. Kerr, "Immigrant Entrepreneurship in America: Evidence from the Survey of Business Owners 2007 & 2012," Research Policy, 2020, Vol. 49, No. 103918, pp. 1-18, p. 1.

115 Kerr, Sari Pekkala and William R. Kerr, "Immigrant Entrepreneurship in America: Evidence from the Survey of Business Owners 2007 & 2012," Research Policy, 2020, Vol. 49, No. 103918, pp. 1-18, pp. 5-8, 12, 15. This is based on the analysis of the 2007 and 2012 Survey of Business Owners.

116 Wadhwa, Vivek, AnnaLee Saxenian, Ben Rissing, and Gary Gereffi, "America's New Immigrant Entrepreneurs," Master of Engineering Management Program, Duke University and School of Information, U.C. Berkeley, January 4, 2007, p. 8.

117 Specifically, the authors rely on "Dun & Bradstreet's (D&B) Million Dollar Database" which "contains U.S. companies with more than $1 million in sales, and 20 or more employees, and company branches with 50 or more employees." Wadhwa, Vivek, AnnaLee Saxenian, Ben Rissing, and Gary Gereffi, "America's New Immigrant Entrepreneurs," Master of Engineering Management Program, Duke University and School of Information, U.C. Berkeley, January 4, 2007, p. 8.

118 Wadhwa, Vivek, AnnaLee Saxenian, Ben Rissing, and Gary Gereffi, "America's New Immigrant Entrepreneurs," Master of Engineering Management Program, Duke University and School of Information, U.C. Berkeley, January 4, 2007, pp. 8, 11.

assistants collected data by contacting the companies to validate publicly available information.[119] The analysis found that of the 2,054 engineering and technology companies founded in the United States from 1995 to 2005 from which they received a response, at least 1 of their key founders was an immigrant in 25.3 percent of them.[120]

These findings from literature on the high share of immigrant business owners are confirmed by our own analysis of data from the SBO from 2007 and 2012 and the ABS from 2018-2021.[121, 122] The SBO data indicate that in 2007 and 2012, about 14 to 15 percent of all businesses were owned by immigrants (*see* **Table 2.2**). Similarly, the ABS data show that between 2018 and 2021, more than 18 percent of all businesses were

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119 Wadhwa, Vivek, AnnaLee Saxenian, Ben Rissing, and Gary Gereffi, "America's New Immigrant Entrepreneurs," Master of Engineering Management Program, Duke University and School of Information, U.C. Berkeley, January 4, 2007, p. 9.

120 Wadhwa, Vivek, AnnaLee Saxenian, Ben Rissing, and Gary Gereffi, "America's New Immigrant Entrepreneurs," Master of Engineering Management Program, Duke University and School of Information, U.C. Berkeley, January 4, 2007, p. 11.

121 The SBO, conducted by the U.S. Census Bureau, and the ABS, conducted jointly by the U.S. Census Bureau and the National Center for Science and Engineering Statistics within the National Science Foundation, collect information on the characteristics of businesses and their owners. The SBO and ABS define business ownership as possessing at least 51 percent of a business's stock or equity. Their sample consists of nonfarm businesses with receipts of at least $1,000 that filed taxes. Firms in sectors 111, 112, 482, 491, 521, 525, 813, 814, and 92 according to the North American Industry Classification System (NAICS) are excluded. "Survey of Business Owners and Self-Employed Persons (SBO)," U.S. Census Bureau; "Methodology - 2007 Survey of Business Owners," U.S. Census Bureau, *available at* https://www.census.gov/programs-surveys/sbo/technical-documentation/methodology/2007-sbo-methodology.html, *accessed* August 24, 2024; "Methodology - 2012 Survey of Business Owners," U.S. Census Bureau, *available at* https://www.census.gov/programs-surveys/sbo/technical-documentation/methodology/2012-sbo-methodology.html, *accessed* August 24, 2024; "Annual Business Survey Methodology," U.S. Census Bureau, 2022, *available at* https://www.census.gov/programs-surveys/abs/technical-documentation/methodology.html, *accessed* August 23, 2024.

122 Analyses based on the SBO and ABS are not directly comparable to analyses based on datasets such as the CPS, which is employed in multiple studies on the immigrant share of business founders (*see* **Table 2.3**). Major differences include: (i) business owners who are primarily wage and salary workers are included in the SBO, but excluded from the CPS (publicly available documentation regarding the ABS does not specify whether business owners who are primarily wage and salary workers are included in the ABS); (ii) the CPS data are collected at the individual level, whereas the SBO and ABS data are collected at the business level (thus multiple businesses owned by 1 individual are counted multiple times in the SBO and ABS but only once in the CPS); and (iii) multiple "minority owners" with less than a 50 percent share of a business are included in the CPS, while only the "majority owner" with at least 51 percent of a business is included in the SBO, and the ABS reports ownership when over 51 percent of a business is owned or if businesses are owned equally (50-50 percent) by men and women, by Hispanics and non-Hispanics, by minorities and non-minorities, and by veterans and non-veterans. "Survey of Business Owners and Self-Employed Persons (SBO)," U.S. Census Bureau; "Methodology - 2007 Survey of Business Owners," U.S. Census Bureau, *available at* https://www.census.gov/programs-surveys/sbo/technical-documentation/methodology/2007-sbo-methodology.html, *accessed* August 24, 2024; "Methodology - 2012 Survey of Business Owners," U.S. Census Bureau, *available at* https://www.census.gov/programs-surveys/sbo/technical-documentation/methodology/2012-sbo-methodology.html, *accessed* August 24, 2024; U.S. Census Bureau, Annual Business Survey: 2022 Tables, *available at* https://www.census.gov/data/tables/2022/econ/abs/2022-abs-company-summary.html; "Annual Business Survey Methodology," U.S. Census Bureau, 2022, *available at* https://www.census.gov/programs-surveys/abs/technical-documentation/methodology.html, *accessed* August 23, 2024; "Current Population Survey Methodology," U.S. Census Bureau, June 4, 2024; Fairlie, Robert W. and Alicia M. Robb, "Entrepreneurship, Self-Employment and Business Data: An Introduction to Several Large, Nationally-Representative Datasets," IZA Institute of Labor Economics Discussion Paper Series, March 2009, No. 4052, pp. 8-10.

owned by immigrants.[123] Across all sectors, the immigrant share of business ownership is higher than the share of foreign-born individuals in the general U.S. population.[124]

Table 2.2: Percentage of Businesses with Foreign-Born Owners, by NAICS Sector in the Survey of Business Owners (2007 and 2012) and the Annual Business Survey (2018-2021)

NAICS Code	NAICS Sector	Percentage of Owners Not Born in the United States					
		2007	2012	2018	2019	2020	2021
Total	**Total for all sectors**	**15.0**	**14.4**	**18.0**	**18.4**	**19.0**	**18.5**
11	Agriculture, forestry, fishing and hunting	8.8	4.9	5.1	3.9	6.1	9.0
21	Mining, quarrying, and oil and gas extraction	5.0	2.3	2.7	3.0	4.2	4.0
22	Utilities	9.9	10.8	6.1	6.9	4.8	10.5
23	Construction	11.1	12.3	9.9	10.3	11.7	10.8
31-33	Manufacturing	13.4	11.0	11.8	11.5	11.8	12.6
42	Wholesale trade	16.4	18.0	20.8	21.3	23.0	21.7
44-45	Retail trade	18.0	15.1	24.4	24.0	24.0	22.5

[123] The increase from 2012 to 2018 identified in the data may be due to changes in how the SBO and ABS identify immigrants in their questionnaires. For example, even within the SBO, the 2007 survey identified foreign-born business owners as individuals born to Americans overseas—and who were therefore U.S. citizens by birth—while the 2012 survey identified foreign-born business owners as only business owners who were not U.S. citizens by birth. The ABS, similar to the 2007 SBO, identifies business owners as foreign-born individuals regardless of citizenship. Therefore, for the ABS, individuals born to Americans overseas are counted as foreign-born business owners, and therefore those individuals could include children born to American parents abroad. "Methodology - 2007 Survey of Business Owners," U.S. Census Bureau, *available at* https://www.census.gov/programs-surveys/sbo/technical-documentation/methodology/2007-sbo-methodology.html, *accessed* August 24, 2024; "Methodology - 2012 Survey of Business Owners," U.S. Census Bureau, *available at* https://www.census.gov/programs-surveys/sbo/technical-documentation/methodology/2012-sbo-methodology.html, *accessed* August 24, 2024; "2021 Annual Business Survey Questionnaire," U.S. Census Bureau.

[124] The percentage of foreign-born individuals in the general U.S. population was 12.6 percent in 2007, 12.9 percent in 2012, 14.1 percent in 2018, 14.1 percent in 2019, 13.8 percent in 2020, and 13.7 percent in 2021. U.S. Census Bureau, Current Population Survey – March 2007 Detailed Tables, Characteristics of the Foreign-Born Population by Nativity and U.S. Citizenship Status Table 1.1, *available at* https://www.census.gov/data/tables/2007/demo/foreign-born/cps-2007.html, *accessed* August 19, 2024; U.S. Census Bureau, Current Population Survey – March 2012 Detailed Tables, Characteristics of the Foreign-Born Population by Nativity and U.S. Citizenship Status Table 1.1, *available at* https://www.census.gov/data/tables/2012/demo/foreign-born/cps-2012.html, *accessed* August 19, 2024; U.S. Census Bureau, Current Population Survey – March 2018 Detailed Tables, Characteristics of the Foreign-Born Population by Nativity and U.S. Citizenship Status Table 1.1, *available at* https://www.census.gov/data/tables/2018/demo/foreign-born/cps-2018.html, *accessed* August 19, 2024; U.S. Census Bureau, Current Population Survey – March 2019 Detailed Tables, Characteristics of the Foreign-Born Population by Nativity and U.S. Citizenship Status Table 1.1, *available at* https://www.census.gov/data/tables/2019/demo/foreign-born/cps-2019.html, *accessed* August 19, 2024; U.S. Census Bureau, Current Population Survey – March 2020 Detailed Tables, Characteristics of the Foreign-Born Population by Nativity and U.S. Citizenship Status Table 1.1, *available at* https://www.census.gov/data/tables/2020/demo/foreign-born/cps-2020.html, *accessed* August 19, 2024; U.S. Census Bureau, Current Population Survey – March 2021 Detailed Tables, Characteristics of the Foreign-Born Population by Nativity and U.S. Citizenship Status Table 1.1, *available at* https://www.census.gov/data/tables/2021/demo/foreign-born/cps-2021.html, *accessed* August 19, 2024. The percentage of foreign-born individuals is calculated as (Total population – Native-born population) / Total population using data tables based on the Annual Social and Economic Supplement of the Current Population Surveys in 2007, 2012, and 2018-2021.

48-49	Transportation and warehousing	21.6	27.5	19.0	21.3	22.4	21.4
51	Information	14.1	11.9	14.9	15.9	16.2	17.0
52	Finance and insurance	10.5	8.1	8.3	8.1	9.3	8.9
53	Real estate and rental and leasing	12.6	10.8	12.5	12.7	14.2	13.4
54	Professional, scientific, and technical services	13.5	12.8	14.2	15.6	15.3	15.5
55	Management of companies and enterprises	6.5	7.3	5.9	6.2	6.3	9.6
56	Administrative and support and waste management	14.4	16.4	13.8	13.8	14.2	14.0
61	Educational services	13.9	11.9	19.2	20.1	21.3	18.7
62	Healthcare and social assistance	17.5	18.0	22.5	22.3	23.1	23.9
71	Arts, entertainment, and recreation	10.9	8.2	10.0	10.6	9.3	9.9
72	Accommodation and food services	28.1	29.1	36.8	37.2	38.0	37.0
81	Other services (except public administration)	18.4	17.8	20.6	21.5	20.8	21.3
99	Industries not classified	18.1	11.8	3.4	3.3	9.0	7.2

Notes:
[1] Sample size and the population to which the results are extrapolated vary in each reported year.
[2] In 2007, among all 2,165,680 businesses covered, 1,503,184 (69.4 percent) had a majority owner, defined as an owner with 51 percent or more of the stock or equity in the business.
[3] The majority owner's nativity status was reported by 847,154 (56.4 percent) such businesses.
[4] In 2012, SBO sampled 1.8 million business owners and extrapolated the results to approximately 22 million business owners.
[5] For 2018-2021, the data come from the ABS, which samples 300,000 businesses annually and extrapolates its findings to between 3.5 and 4.4 million business owners who report the nativity status of their owners.

Sources:
[1] "Survey of Business Owners (SBO) - Business Owners: 2007," U.S. Census Bureau, 2007, *available at* https://www.census.gov/library/publications/2007/econ/2007-sbo-business-owners.html, *accessed* August 28, 2024
[2] "Survey of Business Owners (SBO) - Business Owners: 2012," U.S. Census Bureau, 2012, *available at* https://www.census.gov/library/publications/2012/econ/2012-sbo.html, *accessed* August 28, 2024.
[3] U.S. Census Bureau, ABS - Characteristics of Business Owners: 2018 Tables (Employer Businesses), 2018, *available at* https://www.census.gov/data/tables/2018/econ/abs/2018-abs-characteristics-of-owners.html, *accessed* September 13, 2024.
[4] U.S. Census Bureau, ABS - Characteristics of Business Owners: 2019 Tables (Employer Businesses), 2019, *available at* https://www.census.gov/data/tables/2019/econ/abs/2019-abs-characteristics-of-owners.html, *accessed* September 13, 2024.
[5] U.S. Census Bureau, ABS - Characteristics of Business Owners: 2020 Tables (Employer Businesses), 2020, *available at* https://www.census.gov/data/tables/2020/econ/abs/2020-abs-characteristics-of-owners.html, *accessed* September 13, 2024.
[6] U.S. Census Bureau, ABS - Characteristics of Business Owners: 2021 Tables (Employer Businesses), 2021, *available at* https://www.census.gov/data/tables/2021/econ/abs/2021-abs-characteristics-of-owners.html, *accessed* August 6, 2024.

The immigrant share of business owners is particularly high in certain sectors. For example, in 2021, immigrants accounted for the ownership of more than one-third of businesses in accommodation and food services (37 percent), and more than one-fifth of businesses in healthcare and social assistance (23.9 percent), retail trade (22.5 percent), and wholesale trade (21.7 percent). Moreover, immigrants own more than 15 percent of businesses in information (17.0 percent) and professional, scientific, and technical services (15.5 percent).

b) Immigrant New Entrepreneurship Rate

The new entrepreneurship rate is "the percentage of the adult, non-business owner population that starts a business each month."[125] Empirical research shows that immigrants have a higher new entrepreneurship rate than the native-born U.S. population, and the new entrepreneurship rates of immigrants have been increasing over time. For example:

- Fairlie (2024) analyzes the Current Population Survey (CPS) from 1996 to 2023 to study the demographics of entrepreneurs in the United States.[126] The study finds that "[t]he 2023 new entrepreneurship rate among immigrants was 0.67 percent, which is substantially higher than the 0.28 percent rate for the native born."[127]
- Fairlie (2022), in a report published by the Ewing Marion Kauffman Foundation, examines 4 early-stage entrepreneurship metrics in the United States: rate of new entrepreneurs, opportunity share of new entrepreneurs, startup early job creation, and startup early survival rate. Based on data from the CPS from 1996 to 2021, the report finds that the rate of new entrepreneurs for immigrants increased from 0.36 percent in 1996 to 0.58 percent in 2021, while the rate of new entrepreneurs for native-born Americans stayed at around 0.30 percent throughout this period.[128]

Table 2.3 summarizes findings on the immigrant share of business owners and new entrepreneurship rates in the studies discussed above and others.

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125 Fairlie, Robert W., "Indicators of Entrepreneurial Activity: 2023," Working Paper, January 2024, p. 2. Some sources refer to the new entrepreneurship rate as the business formation rate. *See also*, Fairlie, Robert W. and Magnus Lofstrom, "Immigration and Entrepreneurship," *Handbook of the Economics of International Migration*, Vol. 1B, edited by Chiswick, Barry R. and Paul W. Miller, p. 902.

126 Fairlie, Robert W., "Indicators of Entrepreneurial Activity: 2023," Working Paper, January 2024, p. 2.

127 Fairlie, Robert W., "Indicators of Entrepreneurial Activity: 2023," Working Paper, January 2024, p. 6. This is based on calculations using the 2023 Current Population Survey microdata.

128 Fairlie, Robert W., "National Report on Early-Stage Entrepreneurship in the United States: 2021," Kauffman Indicators of Entrepreneurship, March 2022, pp. 3, 5.

Table 2.3: Immigrant Shares of Business Owners and New Entrepreneurship Rates Reported in Literature

Study	Year	Author(s)	Data Source	Data Range	Sample	Immigrant Share of Business Owners	New Entrepreneurship Rates
Immigrant Entrepreneurship: New Estimates and a Research Agenda [129]	2024	Chodavadia, et al.	SBO, ASE, ABS	2007-2019	United States	24.2% (2019)	
Indicators of Entrepreneurial Activity: 2023 [130]	2024	Fairlie	CPS	1996-2023	United States		Immigrants: 0.67% Native-born: 0.28% (2023)
National Report on Early-Stage Entrepreneurship in the United States: 2021 [131]	2022	Fairlie	CPS	1996-2021	United States		Immigrants: 0.58% Native-born: 0.32% (2021)
Who is the Entrepreneur? New Entrepreneurs in the United States, 1996-2021 [132]	2022	Kauffman Foundation	CPS	1996-2021	United States	28.2% (2021)	
Immigrant Entrepreneurship in America [133]	2020	Kerr and Kerr	SBO	2008-2012	United States	25.0%	
2017 Kauffman Index of Startup Activity [134]	2017	Kauffman Foundation	CPS	1996-2016	United States	30% (2016)	Immigrants: 0.52% Native-born: 0.26% (2016)
Immigrant Entrepreneurship [135]	2017	Kerr and Kerr	LEHD	1992-2008	The 11 states present in the LEHD database by 1992	27.1% (2008)	

[129] Chodavadia, Saheel A., Sari Pekkala Kerr, William R. Kerr, and Louis J. Maiden, "Immigrant Entrepreneurship: New Estimates and a Research Agenda," NBER Working Paper Series, May 2024, No. 32400.

[130] Fairlie, Robert W., "Indicators of Entrepreneurial Activity: 2023," Working Paper, January 2024.

[131] Fairlie, Robert W., "National Report on Early-Stage Entrepreneurship in the United States: 2021," Kauffman Indicators of Entrepreneurship, March 2022.

[132] "Who Is the Entrepreneur? New Entrepreneurs in the United States, 1996-2021," Ewing Marion Kauffman Foundation, October 2022.

[133] Kerr, Sari Pekkala and William R. Kerr, "Immigrant Entrepreneurship in America: Evidence from the Survey of Business Owners 2007 & 2012," Research Policy, 2020, Vol. 49, No. 103918, pp. 1-18.

[134] Fairlie, Robert, Arnobio Morelix, and Inara Tareque, "The Kauffman Index Startup Activity National Trends," Ewing Marion Kauffman Foundation, May 2017.

[135] Kerr, Sari Pekkala and William R. Kerr, "Immigrant Entrepreneurship," *Measuring Entrepreneurial Businesses: Current Knowledge and Challenges*, edited by Haltiwanger, John, et al., University of Chicago Press.

Immigration and Entrepreneurship [136]	2015	Fairlie and Lofstrom	ACS, CPS	2007-2011	United States	24.9%	Immigrants: 0.51% Native-born: 0.28%
Immigrant Entrepreneurs and Small Business Owners [137]	2012	Fairlie	CPS	2010	Individuals ages 20-64 who do not own a business in the first survey month		Immigrants: 0.62% Native-born: 0.28%
High-Tech Immigrant Entrepreneurship in the United States [138]	2009	Hart, Acs, and Tracy	Independent Study	2002-2006	"High impact" companies in the high-tech sector	16.0%	
Estimating the Contribution of Immigrant Business Owners to the Economy [139]	2008	Fairlie	CPS	1996-2007	United States	16.7%	Immigrants: 0.35% Native-born: 0.27%
America's New Immigrant Entrepreneurs [140]	2007	Wadhwa, et al.	Independent Study	1995-2005	U.S. engineering and technology companies with >$1 million in sales and >20 employees and 50 or more employees	25.3%	
The Impact of Immigrant Entrepreneurs and Professionals on U.S. Competitiveness [141]	2006	Anderson and Platzer	Independent Study	1990-2005	U.S. venture capital-backed public companies	25.0%	

Note: SBO (Survey of Business Owners); ASE (Annual Survey of Entrepreneurs); ABS (Annual Business Survey); CPS (Current Population Survey); LEHD (Longitudinal Employer-Household Dynamics database); ACS (American Community Survey).

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136 Fairlie, Robert W. and Magnus Lofstrom, "Immigration and Entrepreneurship," *Handbook of the Economics of International Migration*, Vol. 1B, edited by Chiswick, Barry R. and Paul W. Miller.

137 Fairlie, Robert W., "Immigrant Entrepreneurs and Small Business Owners, and Their Access to Financial Capital," Small Business Administration, Office of Advocacy, May 2012.

138 Hart, David M., Zoltan J. Acs, and Spencer L. Tracy, Jr., "High-Tech Immigrant Entrepreneurship in the United States," Small Business Administration, Office of Advocacy, July 2009.

139 Fairlie, Robert W., "Estimating the Contribution of Immigrant Business Owners to the U.S. Economy," Small Business Administration, Office of Advocacy, November 2008.

140 Wadhwa, Vivek, AnnaLee Saxenian, Ben Rissing, and Gary Gereffi, "America's New Immigrant Entrepreneurs," Master of Engineering Management Program, Duke University and School of Information, U.C. Berkeley, January 4, 2007.

141 Anderson, Stuart and Michaela Platzer, "The Impact of Immigrant Entrepreneurs and Professionals on U.S. Competitiveness," American Made, 2006.

iii. Impact of Businesses Started by Immigrants

Immigrant-owned firms have a substantial impact on the U.S. economy. For example:

- Fairlie and Lofstrom (2015), in a chapter in the Handbook of the Economics of International Migration, use the 2006-2010 American Community Survey (ACS), 10 monthly surveys from the 2007 CPS, and the 2007 SBO to study immigration and entrepreneurship. The authors report using the 2006-2010 ACS that immigrant-owned businesses generated $121 billion in business income, representing 15 percent of all business income in the United States at that time.[142] They also report using the 2007 SBO that immigrant-owned businesses accounted for $780 billion in sales, representing 10.0 percent of total sales; 4 million employees, representing 9.9 percent of total employment; and $127 billion in payroll, representing 8.8 percent of total payroll in the United States at that time.[143]
- According to the New American Economy, in 2019, the United States had a total of 3.2 million immigrant entrepreneurs who generated $1.3 trillion in sales and employed 8 million workers in 2017.[144]
- According to the American Immigration Council, in 2022, the United States had a total of 3.7 million immigrant entrepreneurs who generated $110 billion in business income.[145] More than half of these entrepreneurs reside in the following 4 states: around a quarter in California generating $26.4 billion in business income, 13 percent in Florida generating $11.4 billion, 12 percent in Texas generating $14.5 billion, and 9 percent in New York generating $9.6 billion.[146]
- The American Immigration Council also reports that, as of 2022, Fortune 500 companies founded by immigrants or children of immigrants employed 14.8 million people worldwide, with an average company having 66,192 workers.[147]

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142 Fairlie, Robert W. and Magnus Lofstrom, "Immigration and Entrepreneurship," *Handbook of the Economics of International Migration*, Vol. 1B, edited by Chiswick, Barry R. and Paul W. Miller, pp. 880-881, 901-903.

143 Fairlie, Robert W. and Magnus Lofstrom, "Immigration and Entrepreneurship," *Handbook of the Economics of International Migration*, Vol. 1B, edited by Chiswick, Barry R. and Paul W. Miller, pp. 881-883.

144 "Entrepreneurship and Immigrants in America," New American Economy, *available at* https://www.newamericaneconomy.org/issues/entrepreneurship/page/60/, *accessed* July 23, 2024.

145 "Immigrants in the United States," American Immigration Council, *accessed* August 2, 2024, p. 2 using the data from the 2022 ACS.

146 "Immigrants in California," American Immigration Council, *accessed* August 2, 2024; "Immigrants in Florida," American Immigration Council, *accessed* August 2, 2024; "Immigrants in Texas," American Immigration Council, *accessed* August 2, 2024; "Immigrants in New York," American Immigration Council, *accessed* August 2, 2024. All sources use data from the 2022 ACS.

147 "New American Fortune 500 in 2023," American Immigration Council, August 29, 2023, *available at* https://www.americanimmigrationcouncil.org/research/new-american-fortune-500-2023, *accessed* July 24, 2024.

B. Immigrants and Innovation

i. Innovators with Immigrant Roots

- Many prominent American innovators have close immigrant roots; they are either foreign-born or are children of foreign-born parents. For example:
  - Steve Jobs (Syria), whose father, Abdulfattah Jandali, was born in Syria and immigrated to the United States to study in the 1950s. Jobs was a co-founder of Apple.[148]
  - Jeff Bezos (Cuba), whose father, Miguel Bezos, was born in Cuba and immigrated to the United States in 1962 at the age of 16. Jeff Bezos is the founder of Amazon.[149]
  - Elon Musk (South Africa), who was born in South Africa and immigrated to the United States to study business and physics at the University of Pennsylvania in 1992. Musk is a co-founder and CEO of Tesla, a founder and CEO of SpaceX, and a co-founder of PayPal.[150]
  - Sergey Brin (Russia), who was born in Russia, and immigrated with his family to the Unites States to escape Jewish persecution in 1979. Brin is a co-founder of Google.[151]
  - Noubar Afeyan (Lebanon), who was born in Lebanon, to Armenian parents who fled the Lebanese Civil War in 1975. Afeyan is a co-founder of Moderna.[152]
  - Patrick and John Collison (Ireland), brothers, who were born in Ireland and immigrated to the United States to attend MIT and Harvard in 2007 and 2009. They co-founded Stripe.[153]
  - Al Goldstein (Uzbekistan), who was born in Uzbekistan and fled to escape Jewish persecution in 1988. His family came to the United States as refugees and settled in Chicago. Goldstein completed his

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148 Baig, Edward C., "Steve Jobs' Biological Father Was Syrian Migrant, Some Note," USA Today, November 16, 2015, *available at* https://www.usatoday.com/story/tech/columnist/baig/2015/11/16/steve-jobs-biological-father-syrian-migrant-some-note/75899450/, *accessed* August 7, 2024.

149 Eidell, Lynsey, "All About Jeff Bezos' Parents, Jacklyn Bezos, Miguel Bezos and Ted Jorgensen," People.com, November 13, 2023, *available at* https://people.com/all-about-jeff-bezos-parents-8384337, *accessed* August 12, 2024.

150 "Biography of Elon Musk," October 31, 2022, *available at* https://www.biography.com/business-leaders/elon-musk, *accessed* August 7, 2024.

151 "Biography of Sergey Brin," March 26, 2021, *available at* https://www.biography.com/business-leaders/sergey-brin, *accessed* August 7, 2024.

152 "Noubar Afeyan," Forbes, *available at* https://www.forbes.com/profile/noubar-afeyan/, *accessed* August 7, 2024.

153 Glasner, Joanna, "The 4 Most Valuable U.S. Unicorns Have Immigrant CEOs. So Do 4 of the 7 Top Public Companies," Crunchbase, February 15, 2022, *available at* https://news.crunchbase.com/startups/immigrant-ceos-founders-unicorns-spacex-stripe-instacart/, *accessed* July 23, 2024. *See also*, Anderson, Derek, "The Collison Brothers and Story Behind the Founding of Stripe," Startup Grind, *available at* https://www.startupgrind.com/blog/the-collison-brothers-and-story-behind-the-founding-of-stripe/, *accessed* August 12, 2024.

bachelor's degree at the University of Illinois at Urbana-Champaign and co-founded Avant, Pangea Properties, and Spring Labs.[154]

- Apoorva Mehta (India, Libya), who was born in India and lived in Libya. He worked in San Francisco before founding Instacart.[155]
- Ali Ghodsi (Iran, Sweden), who was born in Iran and whose family was forced to flee to Sweden during the 1979 Revolution. Ghodsi came to the United States in 2009 as a visiting scholar at UC Berkeley and then went on to found Databricks.[156]

ii. Impact of Immigrants on Patent Activity

- Akcigit and Goldschlag (2023), in a National Bureau of Economic Research (NBER) working paper, link patent inventor data to microdata from the Census Bureau such as Decennial Census, ACS, the LEHD, and W-2 records between the years 2000 to 2016 "to collect the demographic characteristics and employment histories for over 760 thousand inventors on U.S. patents granted between 2000 and 2016." The authors find that the share of inventors that are foreign-born increased from about 24 percent in 2000 to almost 35 percent in 2016.[157]
- Immigrants comprise a large and vital component of U.S. innovation. For example:
  - Nager et al. (2016), in a study that "provides a detailed portrait of individuals who are driving technological innovation in the United States" using data from a survey of the Information Technology and Innovation Foundation (ITIF) of "more than 900 people who have made meaningful, marketable contributions to technology-intensive industries as award-winning innovators and international patent applicant," find that 35.5 percent of U.S. innovators were born outside the United States, and another 10 percent had at least 1 parent born abroad.[158]
  - A 2012 report from the Partnership for a New American Economy, a bipartisan immigration research organization, reports that in 2011,

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154 Anderson, Stuart, "Al Goldstein: From Child Refugee to Billion-Dollar Company," Forbes, November 1, 2018, *available at* https://www.forbes.com/sites/stuartanderson/2018/11/01/al-goldstein-from-child-refugee-to-billion-dollar-avant/, *accessed* August 12, 2024.

155 Singh, Shubham, "Who Is Apoorva Mehta? All About the Indian-Origin Entrepreneur Who Left Amazon to Build Instacart, and Became a Billionaire," Business Today, September 21, 2023, *accessed* August 12, 2024; "Apoorva Mehta," Forbes, April 2, 2024, *available at* https://www.forbes.com/profile/apoorva-mehta/, *accessed* September 5, 2024.

156 Cai, Kenrick, "The Accidental Billionaire," Forbes, *accessed* August 12, 2024.

157 Akcigit, Ufuk and Nathan Goldschlag, "Measuring the Characteristics and Employment Dynamics of U.S. Inventors," NBER Working Paper Series, March 2023, No. 31086, pp. 2, 9, 23.

158 Nager, Adams, David Hart, Stephen Ezell, and Robert D. Atkinson, "The Demographics of Innovation in the United States," Information Technology & Innovation Foundation, February 2016, pp. 1, 5.

"76% of patents awarded to the top 10 patent-producing US universities […] had at least one foreign-born inventor."[159]

- Research shows that immigrants have a higher patenting rate than native-born Americans. For example:
  - Hunt and Gauthier-Loiselle (2010), in a published paper in the *American Economic Journal: Macroeconomics*, "measure the extent to which skilled immigrants increase innovation in the United States" using data from the 2003 National Survey of College Graduates, the U.S. Patent and Trademark Office (USPTO), and the Harvard Business School Patent Data File. The authors show that immigrants have a higher patenting rate than native-born Americans.[160]
  - According to Nager et al. (2016), "[o]ver 17 percent of innovators are not even U.S. citizens, yet are nonetheless making invaluable contributions to U.S. innovation. Immigrants born in Europe or Asia are over five times more likely to have created an innovation in America than the average native-born U.S. citizen."[161]
  - Bernstein et al. (2022), in an NBER working paper, link patent records to more than 230 million social security numbers to study the impact of immigrants on innovation. The authors "find that 16% of all US-based inventors, between 1990-2016, have been immigrants that came to the United States when they were 20 years of age or older. The contribution of these immigrants to overall US innovative output, however, has been disproportionate relative to their share of the US inventor population. Immigrant inventors have produced roughly 23% of all patents during this time period."[162]
  - The 2012 report from the Partnership for a New American Economy finds that "[a]t the University of Illinois, for instance, nine out of 10 of the patents had at least one foreign national listed as an inventor, and almost 64% of patents had a foreign inventor who was not yet in a

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159 "Patent Pending: How Immigrants Are Reinventing the American Economy," Partnership for a New American Economy, June 2012, p. 1. The study relies on data on patent assignees available from Patent Full-Text and Image Database maintained by the USPTO, available at http://patft.uspto.gov/netahtml/PTO/. In most cases, when applying for a patent, inventors submit an oath or power of attorney form on which they indicate their citizenship. The study accessed these forms through the publicly available Patent Application Information Retrieval, available at https://patentcenter.uspto.gov/.

160 Hunt, Jennifer and Marjolaine Gauthier-Loiselle, "How Much Does Immigration Boost Innovation?," American Economic Journal: Macroeconomics, April 2010, Vol. 2, No. 2, pp. 31-56 pp. 31, 37.

161 Nager, Adams, David Hart, Stephen Ezell, and Robert D. Atkinson, "The Demographics of Innovation in the United States," Information Technology & Innovation Foundation, February 2016, p. 1, 5. This is based on data from a survey of ITIF. ITIF "surveyed more than 900 people who have made meaningful, marketable contributions to technology-intensive industries as award-winning innovators and international patent applicants."

162 Bernstein, Shai et al., "The Contribution of High-Skilled Immigrants to Innovation in the United States," NBER Working Paper Series, December 2022, No. 30797, pp. 1-3. This is based on data from the USPTO together with data provided by Infutor.

professorial role. This was despite the fact that in the fall of 2011, fewer than 47% of the graduate students studying science, technology, engineering, and mathematics (STEM) on Illinois's two patent-producing campuses were in the U.S. on temporary visas." [163]

- Studies on the demographics of inventors find that patents from foreign-born inventors tend to have higher citation counts compared to patents from native-born U.S. inventors. For example:
  - Akcigit and Goldschlag (2023) find that "foreign born inventors tend to be on higher-citation patents" and that the share of citations received by foreign-born inventors rose from about "30 percent in 2000 to nearly 40 percent in 2013." [164]
  - Bernstein et al. (2022) find that between 1990 and 2016, immigrants generated approximately 25 percent of top patents, i.e., patents that are at the top 10 percent of citations within a technology class and year. [165]

iii. Commercial Value of Patents by Immigrant Inventors

- Research shows that patents by immigrant inventors generate substantial economic value.
  - Bernstein et al. (2022) show that immigrant innovators generated 25 percent of the aggregate economic value created by patents in publicly traded and private companies between 1990 and 2016. Moreover, the authors show that "foreign technologies are about ten percent more likely to cite the patents of US-based immigrants relative to US natives." [166]

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163 "Patent Pending: How Immigrants Are Reinventing the American Economy," Partnership for a New American Economy, June 2012, p. 7. The study pulled data on graduate students enrolled in each major to conduct calculations. The data were obtained from University of Illinois at Chicago, Office of Institutional Research.

164 Akcigit, Ufuk and Nathan Goldschlag, "Measuring the Characteristics and Employment Dynamics of U.S. Inventors," NBER Working Paper Series, March 2023, No. 31086, pp. 5, 9, 23. This study matches patent inventor records from the USPTO to other U.S. Census Bureau microdata, including the Decennial Census, ACS, the LEHD, and W2 records.

165 Bernstein, Shai et al., "The Contribution of High-Skilled Immigrants to Innovation in the United States," NBER Working Paper Series, December 2022, No. 30797, pp. 7, 14. This is based on data from the USPTO together with data provided by Infutor.

166 Bernstein, Shai et al., "The Contribution of High-Skilled Immigrants to Innovation in the United States," NBER Working Paper Series, December 2022, No. 30797, pp. 4, 14. This is based on data from the USPTO together with data provided by Infutor. To measure the economic value generated by a patent, Bernstein et al. (2022) uses a measure developed by Kogan et al. (2017) based on the stock market reaction to the announcement of a patent grant. By construction, this measure is specific to publicly traded firms. Bernstein et al. (2022) imputes the economic value generated by a patent for private firms using the relationship between the value of the Kogan et al. (2017) measure among publicly traded firms and patent application and assignee-level covariates following Kline et al. (2019). Bernstein, Shai et al., "The Contribution of High-Skilled Immigrants to Innovation in the United States," NBER Working Paper Series, December 2022, No. 30797, pp. 8-9. *See also*, Kogan, Leonid, Dimitris Papanikolaou, Amit Seru, and Noah Stoffman, "Technological Innovation, Resource Allocation, and Growth," The Quarterly Journal of Economics, 2017, pp. 665-712; Kline, Patrick, Neviana Petkova, Heidi Williams, and Owen Zidar, "Who Profits from Patents? Rent-Sharing at Innovative Firms," The Quarterly Journal of Economics, 2019, pp. 1343-1404.

- The 2012 report from the Partnership for a New American Economy shows that immigrants' contributions to innovation as measured by patent activity have also had a direct positive impact on university revenue, as demonstrated by how the top 10 U.S. patent-producing universities earned nearly $450 million in patent licensure revenue in fiscal year (FY) 2010.[167]
- Hunt and Gauthier-Loiselle (2010) find that patents filed by immigrants are more likely to be licensed or commercialized as compared to patents filed by native-born U.S. inventors, and patents that are licensed or commercialized are more likely to be beneficial to society.[168]

iv. Patents of Immigrant Inventors by Field

- Bernstein et al. (2022) show that between 1990 and 2016, immigrants accounted for about 25 percent of patents among the 4 main technological categories: Computers and Communications, Drugs and Medical, Electronics, and Chemical technologies.[169]
- A 2024 analysis from the Economic Innovation Group (EIG), a bipartisan research organization, shows that between 2000 and 2018, immigrants authored or co-authored 30 percent of patents in strategic industries: 44 percent in Information; 38 percent in Professional, Scientific, and Technical Services; 37 percent in Healthcare and Social Assistance; 29 percent in Manufacturing; 26 percent in Utilities; and 24 percent in Mining, Quarrying, and Oil and Gas Extraction.[170] Among other findings, the EIG analysis shows that:
  - "Within strategic manufacturing industries, Communications Equipment (35 percent) and Semiconductors (34 percent) had the

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167 "Patent Pending: How Immigrants Are Reinventing the American Economy," Partnership for a New American Economy, June 2012, p. 12. This is based on data from the Association of University Technology Managers, FY2010, Licensing Survey.

168 Hunt, Jennifer and Marjolaine Gauthier-Loiselle, "How Much Does Immigration Boost Innovation?," American Economic Journal: Macroeconomics, April 2010, Vol. 2, No. 2, pp. 31-56, p. 37. This is based on data from the 2003 National Survey of College Graduates, the USPTO, and the Harvard Business School Patent Data File.

169 Bernstein, Shai et al., "The Contribution of High-Skilled Immigrants to Innovation in the United States," NBER Working Paper Series, December 2022, No. 30797, pp. 14, 30. This is based on data from the USPTO together with data provided by Infutor.

170 O'Brien, Connor and Adam Ozimek, "Immigrant Inventors Are Crucial for American National and Economic Security," Economic Innovation Group, May 21, 2024, *available at* https://eig.org/immigrants-patents/, *accessed* August 6, 2024; "About Us," Economic Innovation Group, *available at* https://eig.org/about-us/, *accessed* August 20, 2024. This is based on data from the USPTO between 2000 and 2018. Akcigit and Goldschlag (2023) provides similar statistics using data from 2000 to 2016: 44 percent of inventors in the information sector are foreign born; 43 percent in Educational Services; 39 percent in Professional, Scientific, and Technical Services; 31 percent in Healthcare and Social Assistance; 29 percent in Manufacturing; 24 percent in Mining, Utilities, and Construction. Akcigit, Ufuk and Nathan Goldschlag, "Measuring the Characteristics and Employment Dynamics of U.S. Inventors," NBER Working Paper Series, March 2023, No. 31086, p. 38. This study matches patent inventor records from the USPTO to other U.S. Census Bureau microdata, including the Decennial Census, ACS, the LEHD, and W2 records.

highest share of patents authored or co-authored by immigrants between 2000 and 2018."[171]

- The 2012 report from the Partnership for a New American Economy states that in 2011, "[f]oreign-born inventors played especially large roles in cutting edge fields."[172] Analyses in the report show that:
  - "Foreign nationals were listed as inventors on more than five out of six (84%) information-technology patents."[173]
  - "Almost eight out of ten (79%) patents for pharmaceutical drugs or drug compounds were invented or co-invented by a scientist born abroad."[174]
  - "Immigrants contributed to 75% of patents in the molecular biology and microbiology fields."[175]
- The 2012 report from the Partnership for a New American Economy also highlights significant contributions from immigrants to the Science, Technology, Engineering, and Mathematics (STEM) fields. For example, in 2011, 99 percent of the patents produced by foreign-born inventors from the top 10 patent-generating universities were in STEM-designated fields.[176]

v. Spillover Effects of Innovation by Immigrants

- Bernstein et al. (2022) highlight that "collaborating with immigrants leads to especially large productivity gains for inventors, relative to collaborating with US natives."[177]
- Hunt and Gauthier-Loiselle (2010) similarly note that "immigration could boost innovation indirectly through positive spillovers on fellow researchers, the

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171 O'Brien, Connor and Adam Ozimek, "Immigrant Inventors Are Crucial for American National and Economic Security," Economic Innovation Group, May 21, 2024, *available at* https://eig.org/immigrants-patents/, *accessed* August 6, 2024. This is based on data from the USPTO between 2000 and 2018.

172 "Patent Pending: How Immigrants Are Reinventing the American Economy," Partnership for a New American Economy, June 2012, p. 1 (emphasis removed).

173 "Patent Pending: How Immigrants Are Reinventing the American Economy," Partnership for a New American Economy, June 2012, p. 11. This is based on data from the Patent Full-Text and Image Database maintained by the USPTO, available at http://patft.uspto.gov/netahtml/PTO/search-adv.htm.

174 "Patent Pending: How Immigrants Are Reinventing the American Economy," Partnership for a New American Economy, June 2012, p. 11. This is based on data from the Patent Full-Text and Image Database and the publicly available Patent Application Information Retrieval website, both of which are maintained by the USPTO, available at http://patft.uspto.gov/netahtml/PTO/search-adv.htm, and http://portal.uspto.gov/pair/PublicPair.

175 "Patent Pending: How Immigrants Are Reinventing the American Economy," Partnership for a New American Economy, June 2012, p. 11. This is based on data from the Patent Full-Text and Image Database maintained by the USPTO, available at http://patft.uspto.gov/netahtml/PTO/search-adv.htm.

176 "Patent Pending: How Immigrants Are Reinventing the American Economy," Partnership for a New American Economy, June 2012, pp. 1, 11. This is based on data from the Patent Full-Text and Image Database maintained by the USPTO, available at http://patft.uspto.gov/netahtml/PTO/search-adv.htm.

177 Bernstein, Shai et al., "The Contribution of High-Skilled Immigrants to Innovation in the United States," NBER Working Paper Series, December 2022, No. 30797, p. 2. This is based on data from the USPTO together with data provided by Infutor.

achievement of critical mass in specialized research areas, and the provision of complementary skills such as management and entrepreneurship."[178]

- Academic research shows that there is a positive spillover effect of immigrant inventors on native-born U.S. inventors, indicating that immigrants boost the rate at which native-born U.S. inventors file patents.[179] For example:
  - Bernstein et al. (2022) show that "immigrants are responsible for 36% of aggregate innovation, two-thirds of which is due to their innovation externalities on their native-born collaborators."[180]
  - Hunt and Gauthier-Loiselle (2010) show for the period from 1990 to 2000:
    - "[A] 1.3 percentage point increase in the share of the population composed of immigrant college graduates, and [a] 0.7 percentage point increase in the share of post-college immigrants," each increased patenting per capita in the United States by 12 to 21 percent.[181]
    - A nearly 0.5 percentage point increase in immigrant scientists and engineers increased patenting per capita in the United States by 13 to 32 percent.[182]
    - The authors conclude that the same positive spillover effect on patenting created through immigration may not be replicable by incentivizing the native-born U.S. population alone.[183]

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178 Hunt, Jennifer and Marjolaine Gauthier-Loiselle, "How Much Does Immigration Boost Innovation?," American Economic Journal: Macroeconomics, April 2010, Vol. 2, No. 2, pp. 31-56, p. 31.

179 Hunt, Jennifer and Marjolaine Gauthier-Loiselle, "How Much Does Immigration Boost Innovation?," American Economic Journal: Macroeconomics, April 2010, Vol. 2, No. 2, pp. 31-56, p. 51. This is based on data from the 2003 National Survey of College Graduates, the USPTO, and the Harvard Business School Patent Data File.

180 Bernstein, Shai et al., "The Contribution of High-Skilled Immigrants to Innovation in the United States," NBER Working Paper Series, December 2022, No. 30797, pp. 1, 5. This is based on data from the USPTO together with data provided by Infutor.

181 Specifically, "The 1.3 percentage point increase in the share of the population composed of immigrant college graduates, and the 0.7 percentage point increase in the share of post-college immigrants, each increased patenting per capita by about 12 percent based on least squares and 21 percent based on instrumental variables." Hunt, Jennifer and Marjolaine Gauthier-Loiselle, "How Much Does Immigration Boost Innovation?," American Economic Journal: Macroeconomics, April 2010, Vol. 2, No. 2, pp. 31-56, p. 51. This is based on data from the 2003 National Survey of College Graduates, the USPTO, and the Harvard Business School Patent Data File.

182 Specifically, "The 0.45 percentage point increase in immigrant scientists and engineers increased patenting per capita by about 13 percent based on least squares and 32 percent based on instrumental variables." Hunt, Jennifer and Marjolaine Gauthier-Loiselle, "How Much Does Immigration Boost Innovation?," American Economic Journal: Macroeconomics, April 2010, Vol. 2, No. 2, pp. 31-56, p. 51. This is based on data from the 2003 National Survey of College Graduates, the USPTO, and the Harvard Business School Patent Data File.

183 Specifically, "One should be cautious in drawing the conclusion that innovation could be sustained by simultaneously subsidizing natives to study science and engineering and cutting immigration of scientists and engineers. The additional natives drawn into science and engineering might have lower inventive ability than the excluded immigrants, and such natives might have contributed more to the US economy outside science and engineering." Hunt, Jennifer and Marjolaine Gauthier-Loiselle, "How Much Does Immigration Boost Innovation?," American Economic Journal: Macroeconomics, April 2010, Vol. 2, No. 2, pp. 31-56, p. 52.

- Moser et al. (2014), in a published paper in the *American Economic Review*, analyze patent records available through Google Patents and faculty directories at German and Austrian universities, among other sources. Based on their analysis, they conclude that German Jewish emigres who fled Nazi Germany in the mid-1930s and 1940s increased patenting in the United States by 31 percent.[184] The authors find that:
  - Inventor-level data suggest that this increase in patenting can be attributed to emigrants attracting U.S. inventors to their fields.[185]
  - Data also indicate that the number of patents filed by native-born U.S. inventors who collaborated with immigrant professors increased substantially in the 1940s and 1950s, suggesting that "emigre professors helped to increase US invention in the long run, by training a new group of younger US scientists, who then continued to train other scientists."[186]

vi. Impact of Immigrant Students and H-1B Visa Holders on Innovation and Patenting

- According to the 2022 policy brief from the NFAP, "there are 174 international students who became founders or cofounders of U.S. billion-dollar companies. International students typically can only remain in the United States long-term after gaining H-1B status and (or) an employment-based green card."[187] Analyses in the policy brief show that:
  - "One-quarter (143 of 582, or 25%) of billion-dollar startup companies in the U.S. have a founder who first came to America as an international student."[188]

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184 Moser, Petra, Alessandra Voena, and Fabian Waldinger, "German Jewish Emigres and Us Invention," The American Economic Review, October 2014, Vol. 104, No. 10, pp. 3222-3255, pp. 3222, 3226-3231.

185 Moser, Petra, Alessandra Voena, and Fabian Waldinger, "German Jewish Emigres and Us Invention," The American Economic Review, October 2014, Vol. 104, No. 10, pp. 3222-3255, p. 3222. This is based on an analysis of patent records available through Google Patents, available at https://patents.google.com, in addition to faculty directories at German and Austrian universities, among other sources.

186 Moser, Petra, Alessandra Voena, and Fabian Waldinger, "German Jewish Emigres and Us Invention," The American Economic Review, October 2014, Vol. 104, No. 10, pp. 3222-3255, p. 3253. This is based on an analysis of patent records available through Google Patents, available at https://patents.google.com, in addition to faculty directories at German and Austrian universities, among other sources.

187 Anderson, Stuart, "Immigrant Entrepreneurs and U.S. Billion-Dollar Companies," National Foundation for American Policy, July 2022, pp. 3, 20-25. This is based on the analysis of CB Insights list of privately held, venture-backed companies worth $1 billion, company-provided information, company websites, Crunchbase, LinkedIn, and Craft as of May 2022.

188 Anderson, Stuart, "Immigrant Entrepreneurs and U.S. Billion-Dollar Companies," National Foundation for American Policy, July 2022, pp. 3, 20-25. This is based on the analysis of CB Insights list of privately held, venture-backed companies worth $1 billion, company-provided information, company websites, Crunchbase, LinkedIn, and Craft as of May 2022.

- "Forty-two percent (18 of 43) of the top U.S.-based AI companies had a founder who came to America as an international student."[189]
- "U.S. billion-dollar startups with an international student founder created an average of 860 jobs."[190]

- Kerr and Lincoln (2010), in a published paper in the *Journal of Labor Economics*, study changes in the national cap on H-1B admissions between 1995 and 2008 to "evaluate[] the impact of high-skilled immigrants on U.S. technology formation." Using CPS data between 1995 and 2008 along with USPTO data from 1975 to 2009, the authors find that increases in high-skilled immigration due to expansions of the H-1B visa program are associated with higher levels of patent contributions from immigrants.[191] In particular, the authors find that:
  - "Total [science and engineering] employment and invention [in the United States] increases with higher [H-1B] admissions."[192]
  - Innovation from the native-born U.S. population also increases with expansions of the H-1B program and the associated inflow of new workers.[193]
  - Firms that employ H-1B workers show higher rates of innovation when the national H-1B admission levels increase.[194]
  - Native-born U.S. inventors' patents were not displaced by immigrants that were admitted as a result of expansions in the H-1B visa program.[195]
- Chellaraj et al. (2005), in a World Bank Policy Research working paper, analyze data from 1965 to 2001 from various sources (such as the U.S. Department of Education Statistics Quarterly, the Institute for International Education's

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189 Anderson, Stuart, "AI and Immigrants," National Foundation for American Policy, June 2023, p. 1. This is based on the analysis of 2023 Forbes AI 50, company sources, and LinkedIn.

190 Anderson, Stuart, "Immigrant Entrepreneurs and U.S. Billion-Dollar Companies," National Foundation for American Policy, July 2022, pp. 3, 20-25. This is based on the analysis of CB Insights list of privately held, venture-backed companies worth $1 billion, company-provided information, company websites, Crunchbase, LinkedIn, and Craft as of May 2022.

191 Kerr, William R. and William F. Lincoln, "The Supply Side of Innovation: H-1B Visa Reforms and U.S. Ethnic Invention," Journal of Labor Economics, 2010, Vol. 28, No. 3, pp. 473-508, pp. 473-475, 477.

192 Kerr, William R. and William F. Lincoln, "The Supply Side of Innovation: H-1B Visa Reforms and U.S. Ethnic Invention," Journal of Labor Economics, 2010, Vol. 28, No. 3, pp. 473-508, p. 473. This is based on data from the CPS, in addition to patent records from the USPTO.

193 "Overall, a 10% growth in the H-1B population corresponded with a 0.3%–0.7% increase in total invention for each standard deviation growth in city dependency [upon the H-1B program]." Kerr, William R. and William F. Lincoln, "The Supply Side of Innovation: H-1B Visa Reforms and U.S. Ethnic Invention," Journal of Labor Economics, 2010, Vol. 28, No. 3, pp. 473-508, p. 475. This is based on data from the CPS, in addition to patent records from the USPTO.

194 Kerr, William R. and William F. Lincoln, "The Supply Side of Innovation: H-1B Visa Reforms and U.S. Ethnic Invention," Journal of Labor Economics, 2010, Vol. 28, No. 3, pp. 473-508, pp. 501-503. This is based on data from the CPS, in addition to patent records from the USPTO.

195 Kerr, William R. and William F. Lincoln, "The Supply Side of Innovation: H-1B Visa Reforms and U.S. Ethnic Invention," Journal of Labor Economics, 2010, Vol. 28, No. 3, pp. 473-508, p. 475. This is based on data from the CPS, in addition to patent records from the USPTO.

publication Open Doors, the National Science Foundation's Science and Engineering Statistics, the USPTO patent database, the U.S. Census Bureau's Statistical Abstract of the United States, and the Economic Report of the president) and find "that both enrollment of foreign graduate students and immigration of skilled workers have a strong and positive impact on the development of ideas in the United States."[196]

  - *Patent quantity:* increases in the presence of foreign graduate students have a positive and significant impact on patenting activity at both universities and private firms, thereby contributing to American innovation.[197]
  - *Patent quality:* increases in the share of skilled immigrants are associated with a rise in the number of granted patents at both universities and private firms.[198]

- Hunt and Gauthier-Loiselle (2010) find that there are significant and positive spillovers on the overall patenting activity associated with an increase in the proportion of immigrant college graduates.[199]
  - A "1 percentage point increase in immigrant college graduates' population share increases patent per capita by 9-18 percent."[200]

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196 Chellaraj, Gnanaraj, Keith E. Maskus, and Aaditya Mattoo, "The Contribution of Skilled Immigration and International Graduate Students to U.S. Innovation," World Bank Policy Research Working Paper, May 2005, Vol. 3588, pp. 3, 17-18. This study uses data over 1965 to 2001 from the U.S. Department of Education – Education Statistics Quarterly, the Institute for International Education Open Doors, the National Science Foundation Science and Engineering Statistics, the USPTO, the U.S. Census Bureau – Statistical Abstract of the United States, and the Economic Report of the President.

197 Chellaraj, Gnanaraj, Keith E. Maskus, and Aaditya Mattoo, "The Contribution of Skilled Immigration and International Graduate Students to U.S. Innovation," World Bank Policy Research Working Paper, May 2005, Vol. 3588, pp. 2-3. This study uses data over 1965 to 2001 from the U.S. Department of Education – Education Statistics Quarterly, the Institute for International Education Open Doors, the National Science Foundation Science and Engineering Statistics, the USPTO, the U.S. Census Bureau – Statistical Abstract of the United States, and the Economic Report of the President.

198 Chellaraj, Gnanaraj, Keith E. Maskus, and Aaditya Mattoo, "The Contribution of Skilled Immigration and International Graduate Students to U.S. Innovation," World Bank Policy Research Working Paper, May 2005, Vol. 3588, pp. 2-3. This study uses data over 1965 to 2001 from the U.S. Department of Education – Education Statistics Quarterly, the Institute for International Education Open Doors, the National Science Foundation Science and Engineering Statistics, the USPTO, the U.S. Census Bureau – Statistical Abstract of the United States, and the Economic Report of the President.

199 "For immigrant college graduates […] a 1 percentage point increase in share increases patenting per capita by 8–10 percent in least squares and 12–18 percent in instrumental variables, more than the 6 percent based on the individual-level data (statistically significantly so in the case of the highest coefficient), and therefore implying positive spillovers." Hunt, Jennifer and Marjolaine Gauthier-Loiselle, "How Much Does Immigration Boost Innovation?," American Economic Journal: Macroeconomics, April 2010, Vol. 2, No. 2, pp. 31-56, p. 48. This is based on data from the 2003 National Survey of College Graduates, the USPTO, and the Harvard Business School Patent Data File.

200 Hunt, Jennifer and Marjolaine Gauthier-Loiselle, "How Much Does Immigration Boost Innovation?," American Economic Journal: Macroeconomics, April 2010, Vol. 2, No. 2, pp. 31-56, p. 31. This is based on data from the 2003 National Survey of College Graduates, the USPTO, and the Harvard Business School Patent Data File.

C. Impact of Immigrants on Firms and Productivity

i. Impact of Immigrants on Firms

- Firms founded or owned by immigrants are more likely to produce new technologies and to have a patent. For example, Chodavadia et al. (2024) find that:[201]
  - "Firms founded by immigrants are 3.4–4.5% more likely to produce new technologies and less likely to use other existing technologies."[202]
  - "[A] firm is more likely to have a patent and more patents per employee if the owner is an immigrant."[203]
- Studies show that allowing for more H-1B visa holders benefits firms in the United States. For example:
  - Mahajan et al. (2024), in a Federal Reserve Bank of Richmond working paper, use administrative employer-employee matched data from the U.S. Census Bureau and firm-level information from the 2007 H-1B visa lottery. The authors show that H-1B lottery wins increase firms' employment, survival probabilities, and revenues.[204] For example, the authors find that:
    - "[O]ne additional H-1B lottery win increases total firm employment by 0.83 workers. Of those 0.83 workers, 0.29 are college-educated immigrants, 0.1 college-educated natives, and 0.44 non-college-educated workers."[205]

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201 Chodavadia, Saheel A., Sari Pekkala Kerr, William R. Kerr, and Louis J. Maiden, "Immigrant Entrepreneurship: New Estimates and a Research Agenda," NBER Working Paper Series, May 2024, No. 32400, pp. 2, 14-15. This is based on micro-data from the SBO, ASE, and ABS over the period 2007-2019, and LEHD over the period 2003-2020.

202 Chodavadia, Saheel A., Sari Pekkala Kerr, William R. Kerr, and Louis J. Maiden, "Immigrant Entrepreneurship: New Estimates and a Research Agenda," NBER Working Paper Series, May 2024, No. 32400, p. 17. This is based on micro-data from SBO, ASE, and ABS over the period 2007-2019, and the LEHD over the period 2003-2020.

203 Chodavadia, Saheel A., Sari Pekkala Kerr, William R. Kerr, and Louis J. Maiden, "Immigrant Entrepreneurship: New Estimates and a Research Agenda," NBER Working Paper Series, May 2024, No. 32400, p. 17. is based on micro-data from SBO, ASE, and ABS over the period 2007-2019, and the LEHD over the period 2003-2020.

204 Mahajan, Parag et al., "The Impact of Immigration on Firms and Workers: Insights from the H-1B Lottery," Federal Reserve Bank of Richmond Working Paper Series, April 2024, Vol. WP 24-04, p. 1. This study combines the U.S. Census Bureau economic data from the LEHD program and the LBD with the data on intended applications for H-1B visas submitted by firms to the Department of Labor and granted H-1B visas from the United States Citizenship and Immigration Services (USCIS). The studied sample consists of around 20,000 firms that participated in the H-1B lottery in 2007 and were successfully matched to the Census.

205 Mahajan, Parag et al., "The Impact of Immigration on Firms and Workers: Insights from the H-1B Lottery," Federal Reserve Bank of Richmond Working Paper Series, April 2024, Vol. WP 24-04, p. 24. This study combines the U.S. Census Bureau economic data from the LEHD program and the LBD with the data on intended applications for H-1B visas submitted by firms to the Department of Labor and granted H-1B visas from the USCIS. The studied sample consists of around 20,000 firms that participated in the H-1B lottery in 2007 and were successfully matched to the Census.

- "[F]irms that win all of their lottery applications are 2.5 percentage points more likely to remain active than firms that lose all of their applications."[206]
- Firms also experience increases in revenues "that coincide with the scale" of employment increases.[207]

– Ghosh et al. (2016), in a working paper by researchers from Georgetown University and Queens College, City University of New York, use all Labor Conditions Applications (LCAs) and firm-level data on all U.S. publicly traded firms from Compustat for the years 2001-2006 to study the impact of skilled foreign workers on publicly traded U.S. firms. The authors' findings also suggest that increases in the H-1B visa cap enable research and development-intensive firms to experience gains in productivity and profits.[208] For example, the authors find that:
  - An increase in the cap on H-1B visas of 110,000 visas from 85,000 to 195,000 may lead to a 16 percent increase in firms' profits.[209]

– Peri et al. (2014), in a report published by the Partnership for a New American Economy, use data from the U.S. Citizenship and Immigration Services (USCIS), the U.S. Department of Labor, and the ACS for the years 2000 to 2011 along with data from the LCA and Individual-level I-129 data for the years 2007 and 2008. The report shows that "[c]ities whose employers faced large numbers of denials in the H-1B visa lotteries experienced considerably less job creation

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206 Mahajan, Parag et al., "The Impact of Immigration on Firms and Workers: Insights from the H-1B Lottery," Federal Reserve Bank of Richmond Working Paper Series, April 2024, Vol. WP 24-04, p. 3. This study combines the U.S. Census Bureau economic data from the LEHD program and the LBD with the data on intended applications for H-1B visas submitted by firms to the Department of Labor and granted H-1B visas from the USCIS. The studied sample consists of around 20,000 firms that participated in the H-1B lottery in 2007 and were successfully matched to the Census.

207 Mahajan, Parag et al., "The Impact of Immigration on Firms and Workers: Insights from the H-1B Lottery," Federal Reserve Bank of Richmond Working Paper Series, April 2024, Vol. WP 24-04, p. 3. This study combines the U.S. Census Bureau economic data from the LEHD program and the LBD with the data on intended applications for H-1B visas submitted by firms to the Department of Labor and granted H-1B visas from the USCIS. The studied sample consists of around 20,000 firms that participated in the H-1B lottery in 2007 and were successfully matched to the Census.

208 Ghosh, Anirban, Anna Maria Mayda, and Francesc Ortega, "The Impact of Skilled Foreign Workers on Firms: An Investigation of Publicly Traded U.S. Firms," Working Paper, January 19, 2016, p. i. This is based on data from the Foreign Labor Certification Data, LCAs Records and firm-level data from Compustat for the years 2001-2006.

209 Ghosh, Anirban, Anna Maria Mayda, and Francesc Ortega, "The Impact of Skilled Foreign Workers on Firms: An Investigation of Publicly Traded U.S. Firms," Working Paper, January 19, 2016, p. 26. This study uses data from the Foreign Labor Certification Data, LCAs Records and firm-level data from Compustat for the years 2001-2006.

and wage growth for American-born computer workers in the two years that followed."[210]

- Studies also find that immigrants promote more efficient allocation of tasks within firms. For example, Peri (2012), in a published paper in the *Review of Economics and Statistics*, analyzes data from 1960 to 2000, and 2006 on the aggregate employment and hours worked from the Integrated Public Use Microdata Samples (IPUMS), the gross product from the U.S. Bureau of Economic Analysis, the estimates of physical capital from the National Economic Accounts, and the distance from Mexican border as a proxy for the existence of immigrant communities across U.S. states. The author finds immigrant workers lead to tasks being assigned more efficiently to both immigrant and native-born U.S. workers, increasing overall productivity.[211]

ii. Impact of Immigrants on Productivity

- Hunt (2011), in a published paper in the *Journal of Labor Economics*, analyzes the 2003 wave of the National Survey of College Graduates collected under the auspices of the National Science Foundation to examine how immigrants perform relative to natives. The author finds that based on wages, patenting, commercializing or licensing patents, publication of books or papers, and presentation of research at major conferences, immigrants on H-1B, F-1, and J-1 visas outperformed native-born Americans.[212]
- The Immigration Research Initiative, a nonpartisan think tank, analyzes data from the 2021 Bureau of Economic Analysis and the 5-year ACS of 2021 and estimates that in 2021, immigrants contributed $3.3 trillion to the U.S. gross domestic product (GDP), which represents 17 percent of its total GDP.[213]
    - International students support growth of the U.S. economy. For example, the National Association of Foreign Student Advisers (NAFSA) analyzes data from the U.S. Department of Education, U.S. Department of Commerce, and the Open Doors Report for the 2022-

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210 Peri, Giovanni, Kevin Shih, Chad Sparber, and Angie Marek Zeitlin, "Closing Economic Windows: How H-1B Visa Denials Cost U.S.-Born Tech Workers Jobs and Wages During the Great Recession," Partnership for a New American Economy, June 2014, pp. 4, 27.

211 Peri, Giovanni, "The Effect of Immigration on Productivity: Evidence from U.S. States," The Review of Economics and Statistics, February 2012, Vol. 94, No. 1, pp. 348-358, pp. 350, 357. Peri conjectures that "at least part of the positive productivity effects are due to an efficient specialization of immigrants and natives in manual-intensive and communication-intensive tasks, respectively (in which each group has a comparative advantage), resulting in a gain in overall efficiency."

212 Hunt, Jennifer, "Which Immigrants Are Most Innovative and Entrepreneurial? Distinctions by Entry Visa," Journal of Labor Economics, July 2011, Vol. 29, No. 3, pp. 417-457, pp. 417, 421, 424-425.

213 "Immigrants in the U.S. Economy: Overcoming Hurdles, yet Still Facing Barriers," Immigration Research Initiative, May 1, 2023, *accessed* August 6, 2024, p. 1; "Overview," Immigration Research Initiative, *available at* https://immresearch.org/about/, *accessed* August 20, 2024. This study measures economic output as the immigrant share of total earnings, on the assumption that people are paid in proportion to their economic contribution. Immigrants are defined as people born in another country and living in the United States, whatever their immigration status.

2023 academic year and estimates that for the 2022-2023 academic year:

- "International students studying at U.S. colleges and universities contribute $40.1 billion to the U.S. economy and support 368,333 jobs."[214]
- "For every three international students, one U.S. job is created and supported by spending occurring in the higher education, accommodation, dining, retail, transportation, telecommunications and health insurance sectors."[215]

- The CBO estimates in its Economic Outlook for 2024 to 2034 that the labor force in 2033 will be larger by 5.2 million people, with respect to the CBO's 2023 estimates, due to higher net immigration. As a result of this change in the labor force, "from 2023 to 2034, GDP will be greater by about $7 trillion and revenues will be greater by about $1 trillion than they would have been otherwise."[216]
- Mahajan (2024), in a paper published in the *Journal of the European Economics Association*, uses several confidential sources of demographic and business data from the U.S. Census Bureau's Longitudinal Business Database (LBD) between 2000 and 2018, the 2000 Decennial Census Long Form, and survey responses to the 2005-2019 ACS, along with restricted-access U.S. Census Bureau demographic data from 1970, 1980, 1990, and 2000 to study "the impact of immigration on U.S. local business dynamics." The author finds that a 1 percent increase in the workforce in a labor market due to immigration leads to a 0.37 percent increase in the count of establishments in the labor market, 1.44 percent higher employment, 1.25 percent higher mean earnings, 0.75 percent higher mean incomes, and 1.12 percent higher GDP per capita.[217]
- Buchardi et al. (2021), in an NBER working paper, use IPUMS data from the 1880, 1900, 1910, 1920, 1930, 1970, 1980, 1990, and 2000 waves of the U.S.

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214 "Benefits from International Students," National Association of Foreign Student Advisers, *available at* https://www.nafsa.org/sites/default/files/media/document/EconValue-2023_final.pdf, *accessed* August 23, 2024. This is based on data from the U.S. Department of Education, U.S. Department of Commerce, and the Open Doors Report for 2022-2023 academic year.

215 "Benefits from International Students," National Association of Foreign Student Advisers, *available at* https://www.nafsa.org/sites/default/files/media/document/EconValue-2023_final.pdf, *accessed* August 23, 2024. This is based on data from the U.S. Department of Education, U.S. Department of Commerce, and the Open Doors Report for 2022-2023 academic year.

216 Swagel, Phill, "Director's Statement on the Budget and Economic Outlook for 2024 to 2034," CBO Blog, February 7, 2024, *accessed* August 8, 2024, p. 2; "The Budget and Economic Outlook: 2024 to 2034," Congressional Budget Office, February 2024, pp. 50-51. The CBO calculated the 2024 economic projections relative to its 2023 projections.

217 Mahajan, Parag, "Immigration and Business Dynamics: Evidence from U.S. Firms," Journal of the European Economics Association, 2024, Vol. 00, No. 0, pp. 1-43, pp. 1-2, 7, 14-15. This study uses the U.S. Census Bureau's LBD panel data on establishments from 2000 to 2018, U.S. Census Bureau demographic data from the 1970, 1980, 1990, and 2000 Long-Form Decennial Censuses and the 2005 through 2019 ACS. Mahajan studies immigrant worker inflows into 722 commuting zones over periods spanning 2000-2018. Commuting zones are groupings of counties meant to mimic local labor markets.

Census, the 2006-2010 ACS 5-year sample, patent data from 1975 to 2010 from the USPTO, annual wages from the Quarterly Census of Wages' Personal Consumption Expenditure price index from 1975 to 2010, and economic dynamics data from the U.S. Census Business Dynamics Statistics from 1977 to 2015 to show the causal impact of immigration on innovation and growth in U.S. counties. The authors find that "immigration to the US from 1965 to 2010 may have driven a gradual increase in per capita patenting of 8% and in wages and output per worker of 5%."[218]

- Hunt and Gauthier-Loiselle (2010) estimate that "the influx of immigrant college graduates in the 1990s increased US GDP per capita by 1.4-2.4 percent."[219]
- Peri et al. (2015), in a published paper in the *Journal of Labor Economics*, use the U.S. Department of Labor's 2012 O*NET database, the 2010 ACS data, changes in H-1B visa policies between 1990 and 2010, IPUMS 5 percent census files for 1980, 1990, and 2000, the 1 percent ACS sample for 2005, and the 2008-2010 3 percent merged ACS sample for 2010 to study the long-run effect of STEM-designated employment growth on outcomes for native workers across 219 U.S. cities from 1990 to 2010. The authors find that "inflows of foreign STEM workers explain between 30% and 50% of the aggregate productivity growth that took place in the United States between 1990 and 2010." Foreign STEM-designated worker inflows also "account for a more modest 4%-8% of US skill-biased technological change."[220]
- Skilled immigration leads to macroeconomic benefits related to employment and wages.
  - The 2022 policy brief from the NFAP reports that immigrant-founded U.S. companies valued at $1 billion or more create an average of 859 jobs per company, with the median company creating 465 jobs. The majority of these jobs are in the United States.[221]

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218 Burchardi, Konrad B. et al., "Immigration, Innovation, and Growth," NBER Working Paper Series, November 2021, No. 27075, pp. 4, 7-8. This study combines (i) immigration data from the IPUMS samples of the 1880, 1900, 1910, 1920, 1930, 1970, 1980, 1990, and 2000 waves of the U.S. census, and the 2006-2010 ACS 5-year sample; (ii) patent microdata provided by the USPTO from 1975 until 2010; (iii) local average annual wages from 1975 to 2010 deflated using the Personal Consumption Expenditure price index from the Quarterly Census of Wages dataset provided by the U.S. Bureau of Labor Statistics; and (iv) data on local economic dynamism over 1977-2015 from the U.S. Census Business Dynamism Statistics database.

219 Hunt, Jennifer and Marjolaine Gauthier-Loiselle, "How Much Does Immigration Boost Innovation?," American Economic Journal: Macroeconomics, April 2010, Vol. 2, No. 2, pp. 31-56, p. 52. This is based on data from the 2003 National Survey of College Graduates, the USPTO, and the Harvard Business School Patent Data File.

220 Peri, Giovanni, Kevin Shih, and Chad Sparber, "STEM Workers, H-1B Visas, and Productivity in U.S. Cities," Journal of Labor Economics, July 2015, Vol. 33, No. S1, U.S. High-Skilled Immigration in the Global Economy (Part 2), pp. S225-S255, pp. S225, S227-S230.

221 Anderson, Stuart, "Immigrant Entrepreneurs and U.S. Billion-Dollar Companies," National Foundation for American Policy, July 2022, p. 9. This is based on information from the National Foundation for American Policy, company sources, and Craft.

- Peri (2010) summarizes research by Peri (2009) and Peri and Sparber (2009) indicating that over the long run, "a net inflow of immigrants equal to 1% of employment increases income per worker by 0.6% to 0.9%."[222]
- Peri et al. (2015) estimate that "a rise in foreign STEM growth by 1 percentage point of total employment increases wage growth of college-educated natives by 7–8 percentage points" and wage growth of non-college-educated natives by "3–4 percentage points."[223]
- Ortega and Peri (2014), in a published paper in the *Journal of International Economics*, use bilateral trade data from the NBER-UN dataset, country-level data compiled by Frankel and Romer (1999), GDP and trade shares from Penn World Tables (version 7.0), foreign-born shares using data from Docquier et al. (2010), and an index on institutional quality created by the researchers to "explore[] the relationship between openness to trade, immigration, and income per person across countries." The authors find that "a one percentage point increase in the immigration share in the population increases income per person by about 6%."[224]

- In 2017, 1,470 economists signed an open letter highlighting some of the benefits of immigration to innovation and productivity:
  - "Immigration brings entrepreneurs who start new businesses that hire American workers."[225]

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222 Peri, Giovanni, "The Effect of Immigrants on U.S. Employment and Productivity," FRBSF Economic Letter, August 30, 2010, Vol. 26, pp. 1, 3. This paper summarizes research by Peri (2009) and Perri and Sparber (2009). Peri, Giovanni, "The Effect of Immigration on Productivity: Evidence from U.S. States," NBER Working Paper Series, November 2009, No. 15507; Peri, Giovanni and Chad Sparber, "Task Specialization, Immigration, and Wages," American Economic Journal: Applied Economics, July 2009, Vol. 1, No. 3, pp. 135-169.

223 Peri, Giovanni, Kevin Shih, and Chad Sparber, "STEM Workers, H-1B Visas, and Productivity in U.S. Cities," Journal of Labor Economics, July 2015, Vol. 33, No. S1, U.S. High-Skilled Immigration in the Global Economy (Part 2), pp. S225-S255, p. S227.This is based on the U.S. Department of Labor's 2010 O*NET database, the 2010 ACS data, changes in H-1B visa policies between 1990 and 2010, IPUMS 5 percent census files for 1980, 1990, and 2000, the 1 percent ACS sample for 2005, and the 2008-2010 merged 3 percent ACS sample for 2010.

224 Ortega, Francesc and Giovanni Peri, "Openness and Income: The Roles of Trade and Migration," Journal of International Economics, 2014, Vol. 92, pp. 231-251, pp. 231, 235, 245, 248. This is based on data from the NBER-UN dataset, county-level data compiled by Frankel and Rommer (1999), GDP and trade shares the Penn World Tables (version 7.0), foreign-born shares using data from Docquier et al. (2010). Docquier, Frédéric, Çalar Özden, and Giovanni Peri, "The Wage Effects of Immigration and Emigration," NBER Working Paper Series, December 2010, No. 16646; Frankel, Jeffrey A. and David Romer, "Does Trade Cause Growth?," The American Economic Review, June 1999, Vol. 89, No. 3.

225 "An Open Letter from 1,470 Economists on Immigration," New American Economy, April 2017, *available at* https://www.newamericaneconomy.org/wp-content/uploads/2017/04/EconomistLetter_AUG2017.pdf, *accessed* August 6, 2024.

- "Immigration brings young workers who help offset the large-scale retirement of baby boomers."[226]
- "Immigration brings diverse skill sets that keep our workforce flexible, help companies grow, and increase the productivity of American workers."[227]
- "Immigrants are far more likely to work in innovative, job-creating fields such as science, technology, engineering, and math that create life-improving products and drive economic growth."[228]

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226 "An Open Letter from 1,470 Economists on Immigration," New American Economy, April 2017, *available at* https://www.newamericaneconomy.org/wp-content/uploads/2017/04/EconomistLetter_AUG2017.pdf, *accessed* August 6, 2024.

227 "An Open Letter from 1,470 Economists on Immigration," New American Economy, April 2017, *available at* https://www.newamericaneconomy.org/wp-content/uploads/2017/04/EconomistLetter_AUG2017.pdf, *accessed* August 6, 2024.

228 "An Open Letter from 1,470 Economists on Immigration," New American Economy, April 2017, *available at* https://www.newamericaneconomy.org/wp-content/uploads/2017/04/EconomistLetter_AUG2017.pdf, *accessed* August 6, 2024.

III. High-Skilled Immigrants

KEY TAKEAWAYS

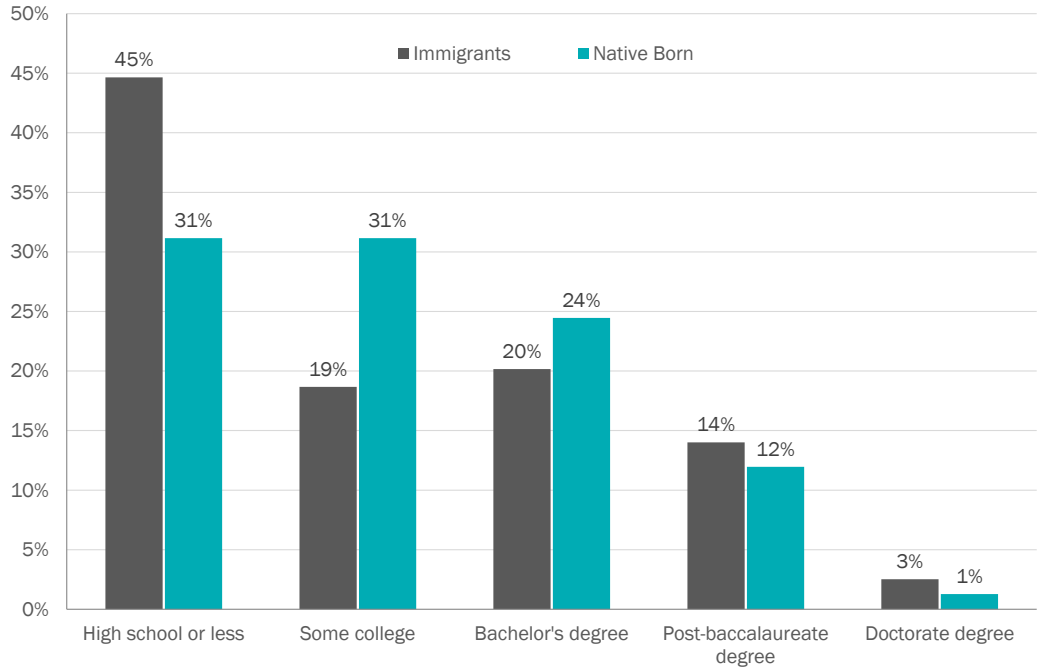
- Immigrants accounted for 29 percent of physicians from 2018-2022 despite making up only 20 percent of the prime-working-age population (ages 25-54).
- Among professionals working in engineering or life sciences, immigrants are more likely to have a post-baccalaureate degree or a doctorate degree than are native-born Americans. 38.2 and 8.8 percent of immigrants aged 25-54 years old working in the engineering field have a post-baccalaureate degree and a doctorate degree, respectively, compared to 18.3 and 1.7 percent among native-born Americans. A similar pattern is also observed for the life sciences field.
- International students accounted for 13.2 and 12.4 percent of the post-baccalaureate and doctorate degrees conferred in the 2021-2022 school year, respectively. International students were disproportionately more likely to get their degrees in a science, technology, engineering, and mathematics- (STEM-)designated field, making up 17.2 percent of the post-baccalaureate and doctorate degrees in STEM-designated fields. These disproportionalities are even more striking when focusing on degrees in mathematics and statistics, where 48.2 and 54.6 percent of post-baccalaureate and doctorate degrees, respectively, were earned by international students.
- International students make up a substantial portion of the student body at several leading universities and generate substantial economic benefits to the U.S. economy. During the 2022-2023 academic year, international students contributed $40.1 billion to the U.S. economy and supported more than 368,000 jobs, with more than half of those jobs in the higher education industry.

A. Characteristics of High-Skilled Immigrants

i. Education Levels

- Among 25- to 54-year-olds, immigrants are more likely than native-born Americans to have a high-school degree or less, but they are also 3 times as likely to have a doctorate degree. 1 percent of native-born Americans aged 25 to 54 have a doctoral degree compared to 3 percent of immigrants (*see* **Figure 3.1**).

Figure 3.1: Education Attainment of 25- to 54-Year-Olds by Nativity Status, 2018–2022



Notes:
[1] "Some college" includes individuals who reported having attained an associate's degree as well as individuals that reported attending college without receiving a bachelor's degree.
[2] "Post-baccalaureate degree" includes individuals who reported having attained a master's or professional degree beyond a bachelor's degree.

Source: U.S. Census Bureau, American Community Survey, 2018-2022 Public Use Microdata Sample (PUMS) 5-year estimates, *available at* https://www2.census.gov/programs-surveys/acs/data/pums/2022/5-Year/, *accessed* June 20, 2024.

ii. Medical Professionals

- From 2018-2022, immigrant professionals accounted for 29 percent of physicians aged 25 to 54 years old in the United States despite making up only 20 percent of the U.S. population in the same age group (*see* **Table 3.1**). Immigrants' high share among physicians is particularly salient in states in the middle of the country. For example, only 7 percent of Ohio's population are immigrants, but 28 percent of Ohio's physicians are immigrants. Similarly, only 6 percent of Kentucky's population are immigrants, but 17 percent of the state's physicians are immigrants.

Table 3.1: Immigrant Share of Population and Physicians by State, 2018–2022

State	Total Population	Immigrant Share	Total Physicians	Immigrant Share
United States (total)	**129,270,055**	**20%**	**654,707**	**29%**
Alabama	1,891,920	5%	7,067	15%
Alaska	300,473	11%	1,388	12%
Arizona	2,717,970	19%	10,403	29%
Arkansas	1,127,732	8%	4,192	27%
California	16,198,055	35%	73,907	32%
Colorado	2,425,195	14%	12,918	15%
Connecticut	1,370,186	22%	9,474	37%
Delaware	364,961	16%	1,238	32%
District of Columbia	332,901	17%	3,431	19%
Florida	8,141,685	28%	39,653	35%
Georgia	4,293,264	16%	18,154	29%
Hawaii	560,913	22%	3,417	24%
Idaho	689,378	9%	2,530	13%
Illinois	5,017,290	21%	27,828	37%
Indiana	2,559,362	9%	9,809	28%
Iowa	1,156,611	10%	5,914	28%
Kansas	1,078,506	12%	4,760	22%
Kentucky	1,710,026	6%	6,780	17%
Louisiana	1,777,930	6%	7,488	18%
Maine	500,968	5%	2,537	16%
Maryland	2,439,666	23%	15,836	31%
Massachusetts	2,764,565	24%	21,993	32%
Michigan	3,757,911	10%	21,955	28%
Minnesota	2,183,932	14%	10,411	23%
Mississippi	1,101,076	4%	3,743	23%
Missouri	2,313,210	6%	11,098	25%
Montana	396,195	3%	1,745	5%
Nebraska	725,142	12%	3,408	19%
Nevada	1,264,210	27%	3,664	29%
New Hampshire	519,833	9%	2,929	28%
New Jersey	3,623,054	33%	20,045	40%
New Mexico	782,207	14%	3,325	20%
New York	7,936,039	29%	53,838	36%
North Carolina	4,069,840	13%	19,625	21%
North Dakota	289,497	8%	1,462	26%
Ohio	4,434,163	7%	27,617	28%
Oklahoma	1,504,666	10%	6,254	25%
Oregon	1,692,887	15%	9,840	19%
Pennsylvania	4,879,617	11%	32,696	28%
Rhode Island	421,711	20%	3,323	34%
South Carolina	1,927,751	8%	9,146	20%
South Dakota	318,648	6%	1,400	13%

Tennessee	2,695,680	8%	11,670	20%
Texas	11,868,221	25%	50,634	33%
Utah	1,278,601	13%	5,924	14%
Vermont	231,841	6%	1,142	18%
Virginia	3,420,449	19%	17,023	31%
Washington	3,161,721	22%	15,613	28%
West Virginia	654,465	2%	3,245	22%
Wisconsin	2,182,712	8%	10,572	17%
Wyoming	215,219	5%	643	10%

Source: U.S. Census Bureau, American Community Survey, 2018-2022 Public Use Microdata Sample (PUMS) 5-year estimates, *available at* https://www2.census.gov/programs-surveys/acs/data/pums/2022/5-Year/, *accessed* June 20, 2024.

iii. Professionals Working in Engineering and Life Sciences

- Among professionals working in engineering or life sciences, immigrants are more likely to have a post-baccalaureate or doctorate degree. 38.2 percent of immigrants aged 25 to 54 working in engineering have a post-baccalaureate degree compared to 18.3 percent among native-born U.S. professionals; and 8.8 percent of immigrant professionals in engineering have a doctorate degree compared to 1.7 percent among native-born U.S. engineering professionals (*see* **Table 3.2**).
- A similar pattern is also observed among professionals aged 25-54 years old working in life sciences, where 43.3 percent of immigrants have a doctorate degree compared to 16.1 percent among native-born Americans.

Table 3.2: Education Level of 25- to 54-Year-Olds Working in Engineering and Life Sciences, 2018–2022

	Native-Born Population	Immigrant Population
Work in Engineering		
with a Bachelor's Degree	49.3%	37.9%
with a Post-baccalaureate Degree	18.3%	38.2%
with a Doctorate Degree	1.7%	8.8%
Work in Life Sciences		
with a Bachelor's Degree	38.7%	19.7%
with a Post-baccalaureate Degree	29.3%	28.5%
with a Doctorate Degree	16.1%	43.3%

Note: "Post-baccalaureate degree" includes individuals that reported having attained a master's or professional degree beyond a bachelor's degree.

Source: U.S. Census Bureau, American Community Survey, 2018-2022 Public Use Microdata Sample (PUMS) 5-year estimates, *available at* https://www2.census.gov/programs-surveys/acs/data/pums/2022/5-Year/, *accessed* June 20, 2024.

B. International Students Enrolled in U.S. Higher Education Institutions

International students are vital contributors of U.S. higher education institutions, especially in post-baccalaureate degree programs and STEM-designated fields.[229] Many high-skilled immigrants who currently work in the United States were first international students on temporary student visas. After graduation, they remained in the United States on temporary work visas and became lawful permanent residents or naturalized citizens.

i. Degrees Conferred in the United States

- During the 2021-2022 academic year, over 94,000 bachelor's degrees were conferred to international students at U.S. postsecondary institutions (*see* **Table 3.3**), which accounted for 4.7 percent of all bachelor's degrees conferred in the same year. The share of mathematics and statistics degrees conferred to international students was over 4 times higher, accounting for 20.6 percent of the mathematics and statistics degrees conferred in the United States during the 2021-2022 academic year.
- International students also made up a notable share of all post-baccalaureate (13.2 percent) and doctorate degrees (12.4 percent) conferred during the 2021-2022 academic year. International students were disproportionately more likely to receive their post-baccalaureate and doctorate degrees in a STEM-designated field. Degrees conferred to international students made up over 17.2 percent of the post-baccalaureate and doctorate degrees in STEM-designated fields in the same academic year.[230] These findings are even more striking when focusing on degrees in mathematics and statistics, where 48.2 percent of post-baccalaureate and 54.6 percent of doctorate degrees were earned by international students.

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[229] An international student is a non-citizen student who is in the country on a visa or temporary basis to complete a program of study. "International Student Life Cycle," U.S. Department of Homeland Security, *available at* https://studyinthestates.dhs.gov/students/get-started/international-student-life-cycle, *accessed* August 20, 2024.

[230] Share of post-baccalaureate and doctorate degrees conferred to international students in STEM fields is calculated as: (62,631 + 19,373) / (345,357 + 130,769), which is 17.2 percent.

Table 3.3: Degrees Conferred by Postsecondary Institutions by Field of Study and Nativity Status 2021-2022 School Year

	Total Number of Degrees	International Students (Count)	International Students (Share)
Bachelor's Degrees			
All Fields	2,015,035	94,403	4.7%
STEM Fields	970,055	51,998	5.4%
Mathematics and Statistics	26,212	5,391	20.6%
Master's Degrees			
All Fields	880,249	116,223	13.2%
STEM Fields	345,357	62,631	18.1%
Mathematics and Statistics	11,761	5,665	48.2%
Doctorate Degrees			
All Fields	203,884	25,338	12.4%
STEM Fields	130,769	19,373	14.8%
Mathematics and Statistics	2,209	1,206	54.6%

Note: STEM-designated fields include fields classified as architecture and related services; biological and biomedical studies; computer and information sciences; engineering; engineering technologies and engineering-related fields; health professions and related programs; mathematics and statistics; military technologies and applied sciences; physical science technologies; psychology; and social sciences.

Source: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Fall 2022, Completions component, prepared September 2023, *available at* https://nces.ed.gov/programs/digest/current_tables.asp, *accessed* July 24, 2024.

ii. Economic Benefits of International Students

- In the 2022-2023 academic year, there were approximately 1.06 million international students enrolled in colleges and universities in the United States.[231] International students make up a significant portion of the student body at several leading universities. For example, in 2022, in the top 10 U.S. universities as ranked by the *Times Higher Education*,[232] international students accounted for:
  - 40 percent of total student enrollment at Columbia University
  - 30 percent at California Institute of Technology, the University of Chicago, and Massachusetts Institute of Technology
  - 25 percent at Harvard University and Stanford University

[231] "Benefits from International Students," National Association of Foreign Student Advisers, *available at* https://www.nafsa.org/sites/default/files/media/document/EconValue-2023_final.pdf, *accessed* August 23, 2024.

[232] "World University Rankings 2022," Times Higher Education, *available at* https://www.timeshighereducation.com/world-university-rankings/2022#!/length/25/locations/USA/sort_by/rank/sort_order/asc/cols/stats, *accessed* August 20, 2024.

- 23 percent at Princeton University
- 22 percent at Yale University
- 18 percent at University of California-Berkeley
- 14 percent at the University of California, Los Angeles.[233]

- According to Institute of International Education (IIE), a non-profit organization that designs and implements international education services, approximately "62 percent of all international students receive the majority of their funds from sources outside of the United States, including personal and family sources as well as assistance from their home country governments or universities."[234]
- National Association of Foreign Student Advisers (NAFSA), a nonprofit association dedicated to international education, estimated that during the 2022-2023 academic year, international students contributed $40.1 billion to the U.S. economy through tuition and living expenses, and created or supported more than 368,000 jobs.[235] NAFSA also found that during the 2022-2023 academic year, "international students studying at U.S. community colleges contributed $1.5 billion and supported 6,620 jobs to the U.S. economy."[236]
- The benefits brought by international students created jobs in a variety of industries. In 2022 for the states where the top 10 U.S. universities discussed above are located,[237] the direct jobs created were predominantly in higher education (more than 50 percent), followed by accommodation, dining, retail, and others including health insurance, telecom and transportation industries (*see* **Table 3.4**).

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233 Integrated Postsecondary Education Data System, Enrollment by University, *accessed* August 23, 2024.

234 "Economic Impact of International Students," Institute of International Education, Inc., *available at* www.iie.org/research-initiatives/open-doors/economic-impact-of-international-students/, *accessed* August 20, 2024.

235 "Benefits from International Students," National Association of Foreign Student Advisers, *available at* https://www.nafsa.org/sites/default/files/media/document/EconValue-2023_final.pdf, *accessed* August 23, 2024.

236 "Economic Value Statistics," National Association of Foreign Student Advisers, *available at* https://www.nafsa.org/policy-and-advocacy/policy-resources/nafsa-international-student-economic-value-tool-v2, *accessed* August 20, 2024.

237 "Economic Value Statistics," National Association of Foreign Student Advisers, *available at* https://www.nafsa.org/policy-and-advocacy/policy-resources/nafsa-international-student-economic-value-tool-v2, *accessed* August 20, 2024.

Table 3.4: Direct Jobs by Industry Created by Benefit of International Students 2022 Academic Year – All and Selected States

State	Higher Education	Accommodation	Dining	Retail	Others
United States (all)	53%	19%	12%	9%	7%
California	53%	19%	12%	10%	6%
Connecticut	57%	17%	11%	9%	6%
Illinois	58%	17%	11%	8%	6%
Massachusetts	60%	16%	10%	8%	6%
New Jersey	55%	18%	11%	9%	7%
New York	56%	18%	11%	9%	6%

Notes:
[1] "Others" category includes health insurance, telecom, and transportation.
[2] This table focuses on the direct jobs created. There are also additional indirect jobs created beyond these direct jobs, which are not shown in the table.

Source: National Association of Foreign Student Advisers, Economic Value Statistics 2024, *available at* https://www.nafsa.org/policy-and-advocacy/policy-resources/nafsa-international-student-economic-value-tool-v2, *accessed* August 14, 2024.

IV. Awards

KEY TAKEAWAYS

- 40 percent of Nobel Prizes won by Americans in Chemistry, Medicine, and Physics since 2000 were awarded to immigrants.
- Most Nobel Prizes earned by immigrant scientists were awarded only after the Immigration and Nationality Act was passed in 1965, which eliminated discriminatory national origin quotas and increased employment-based Green Cards. Between 1901 and 1959, immigrants won 22 Nobel Prizes in Chemistry, Medicine, and Physics, but won 93 prizes in these fields—more than 4 times as many—between 1960 and 2023.
- From 2010 to 2023, 8 out of 18 U.S. Turing Award recipients were first- or second-generation immigrants.
- Since being first awarded in 1963, 62 percent of Fields Medal recipients affiliated with a U.S. research institution have been immigrants. Since 2002, only 1 Fields Medal recipient affiliated with a U.S. research institution was not an immigrant.
- Since the award was established in 1959, 41 percent of National Medal of Science recipients in mathematics or computer science are immigrants.
- Since the first prizes were awarded in 2012, 43 percent of Breakthrough Prize winners who were affiliated with a U.S. institution at the time of the award were immigrants. In mathematics, 73 percent of the U.S.-affiliated winners were immigrants.

A. Nobel Prize

"Immigrants have been awarded 40%, or 45 of 112, of the Nobel Prizes won by Americans in chemistry, medicine and physics since 2000, according to an analysis by the National Foundation for American Policy (NFAP)."[238] "In 2023, four of the six U.S. recipients of Nobel Prizes in medicine, chemistry and physics were immigrants to the United States."[239]

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238 "Immigrants and Nobel Prizes: 1901 - 2023," National Foundation for American Policy, October 2023, p.1.

239 "New Research: Immigrants Have Been Awarded 40% of the Nobel Prizes Won by Americans in Physics, Chemistry and Medicine since 2000; 36% since 1901 Immigrants Won 4 of 6 U.S. Nobel Prizes in Physics, Chemistry and Medicine in 2023," National Foundation for American Policy, October 4, 2023, p.1.

Table 4.1: American Nobel Prize Winners in Chemistry, Medicine and Physics by Nativity Status, 2000-2023

Field	Immigrant	Native-Born	Immigrant %
Chemistry	16	23	41.0
Medicine	12	23	34.3
Physics	17	21	44.7
All 3 Fields	**45**	**67**	**40.2**

Source: National Foundation for American Policy, "Immigrants and Nobel Prizes: 1901-2023" NFAP Policy Brief, October 2023, *available at* https://nfap.com/wp-content/uploads/2023/10/Immigrants-and-Nobel-Prizes-1901-to-2023.NFAP-Policy-Brief.October-2023.pdf, *accessed* June 20, 2024.

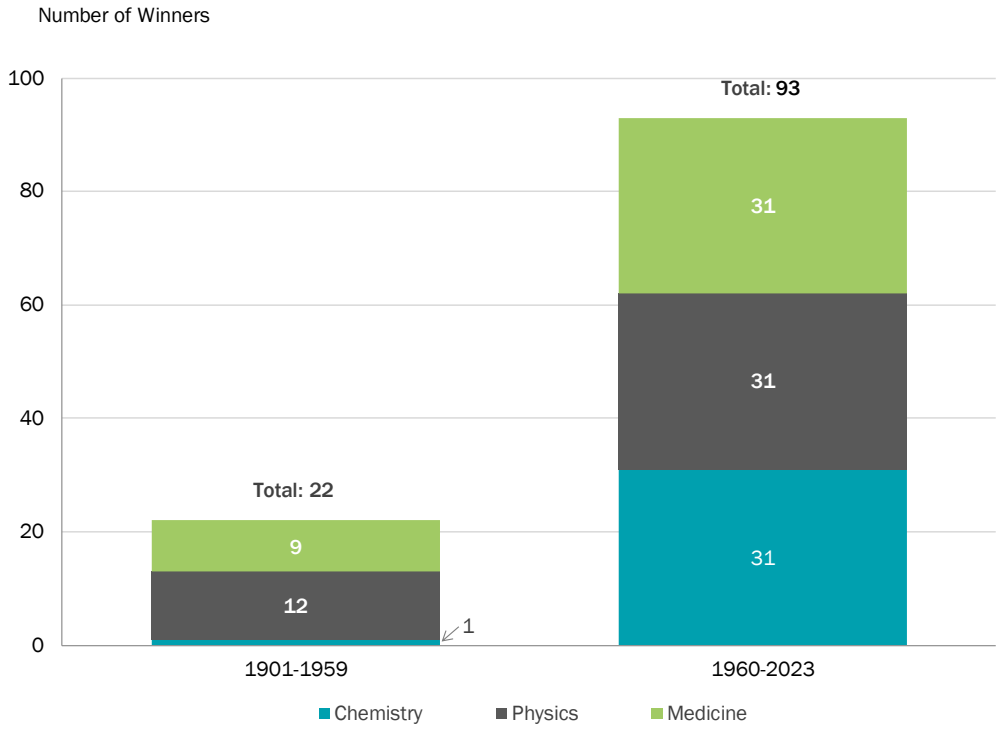
According to a policy brief by the National Foundation for American Policy (NFAP):

- "The Immigration and Nationality Act of 1965 eliminated the discriminatory national origin quotas and opened the door to Asian immigrants, while the Immigration Act of 1990 increased employment-based green card numbers. Those two pieces of legislation have been essential factors in drawing international students to the country and enhancing the ability of America to assimilate talented individuals into our culture and economy."[240]
- "One can see the increasing influence and importance of immigrants on science in America reflected in Nobel Prize winners. Between 1901 and 1959, immigrants won 22 Nobel Prizes in chemistry, medicine and physics but won 93 prizes in these fields – *more than four times as many* – between 1960 and 2023."[241]

[240] "Immigrants and Nobel Prizes: 1901 - 2023," National Foundation for American Policy, October 2023, p.2.

[241] "Immigrants and Nobel Prizes: 1901 - 2023," National Foundation for American Policy, October 2023, p.2.

Figure 4.1: U.S. Immigrant Nobel Prize Winners in Chemistry, Medicine and Physics, 1901–1959 and 1960–2023



Source: National Foundation for American Policy, "Immigrants and Nobel Prizes: 1901-2023," NFAP Policy Brief, October 2023, pp. 2-17, *available at* https://nfap.com/wp-content/uploads/2023/10/Immigrants-and-Nobel-Prizes-1901-to-2023.NFAP-Policy-Brief.October-2023.pdf, *accessed* June 20, 2024.

B. MacArthur Fellowship

- The MacArthur Fellowship is awarded to support individuals who have shown "a track record of excellence" and "the ability to impact society in significant and beneficial ways through their pioneering work" across a wide range of fields, including the sciences, arts, and social sciences.[242]
- "Typically, 20 to 30 Fellows are selected each year" to receive a grant paid over five years, with no strings attached.[243] Fellows must be a resident or a citizen of the United States, not holding elective office, and are selected based on the following criteria:[244]

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242 "MacArthur Fellows Program Strategy," MacArthur Foundation, *available at* https://www.macfound.org/programs/awards/fellows/about, *accessed* June 23, 2024.

243 The grant amount was increased from $500,000 to $625,000 in 2013, and is currently $800,000. "Review Affirms Impact and Inspiration of MacArthur Fellows," MacArthur Foundation, August 27, 2023, *available at* https://web.archive.org/web/20200422111539/https://www.macfound.org/press/publications/macarthur-fellows-program-review-summary/, *accessed* August 12, 2024. *See also*, "MacArthur Fellows Program Strategy," MacArthur Foundation, *available at* https://www.macfound.org/programs/awards/fellows/about, *accessed* June 23, 2024.

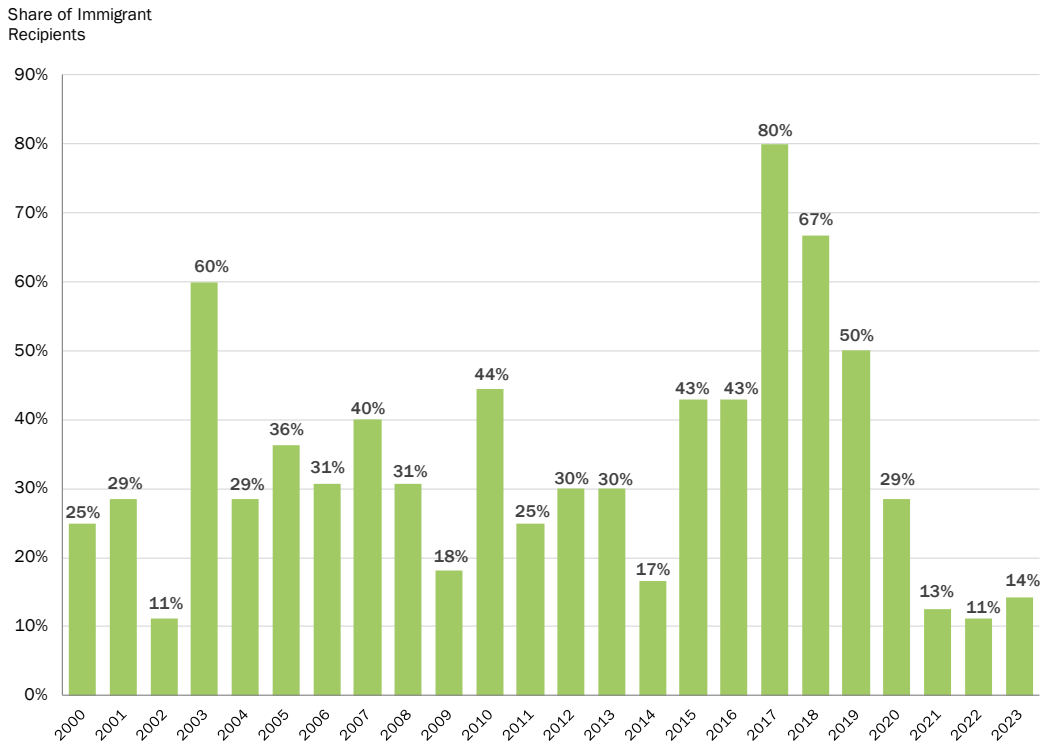
244 "MacArthur Fellows Program Strategy," MacArthur Foundation, *available at* https://www.macfound.org/programs/awards/fellows/about, *accessed* June 23, 2024.

  - Exceptional creativity and "[p]otential for the Fellowship to facilitate subsequent creative work"; and
  - Commitment of significant future advances based on track record of important accomplishments.

- 24 percent of all MacArthur Fellows from 2000 to 2023 were immigrants.[245] In the same period, 32 percent of the fellows working in the science, technology, engineering, and mathematics (STEM) fields were immigrants (see **Figure 4.2** below).
- 2 fellows from the past 5 years working in the STEM fields are from Latin American countries:
  - 2017: Gabriel Victora (born in Brazil), immunologist
  - 2019: Vanessa Ruta (born in Mexico), neuroscientist

[245] "MacArthur Fellows Program Directory of Fellows, 1981-2022," MacArthur Foundation, January 2023, *available at* https://www.macfound.org/media/fellows_pdf/macarthur-fellows-program-1981-2022-directory-of-fellows.pdf, *accessed* July 12, 2024. Immigrant recipients are defined as individuals who were born outside the United States and its territories to non-American parents. Recipients' birthplaces were identified through internet research. If birthplace could not be found, the recipient was assumed to be native-born American. Source document for each immigrant recipient's birthplace is available upon request.

Figure 4.2: Share of Immigrants among MacArthur Fellowship Recipients in STEM Fields, 2000–2023



Notes:
[1] Immigrant recipients are defined as individuals who were born outside the United States and its territories to non-American parents.
[2] Recipients' birthplaces were identified through Internet research. If birthplace could not be found, the recipient was assumed to be a native-born American.

Sources:
[1] MacArthur Foundation, "Directory of Fellows, 1981-2022," January 2023, *available at* https://www.macfound.org/media/fellows_pdf/macarthur-fellows-program-1981-2022-directory-of-fellows.pdf, *accessed* July 12, 2024.
[2] MacArthur Foundation, "MacArthur Fellows," *available at* https://www.macfound.org/programs/awards/fellows/, *accessed* July 12, 2024.
[3] Source document for each immigrant recipient's birthplace is available upon request.

C. Recognitions in Medicine

i. Wolf Prize in Medicine

- The aim of the Wolf Foundation is to award prizes to outstanding scientists and artists—irrespective of nationality, race, color, religion, sex, or political views—for achievements in the interest of mankind and friendly relations among peoples.[246]

[246] "About the Wolf Foundation," Wolf Foundation, *available at* https://wolffund.org.il/about-wolf-foundation/, *accessed* August 20, 2024.

Since 1978, prizes in the science field include Agriculture, Chemistry, Mathematics, Medicine, and Physics.[247]

- The Wolf Prize has been considered a significant predictor of the Nobel Prize, with approximately a third of its recipients going on to win the Nobel Prize.[248]
- Among the Wolf Prize winners who either worked in, studied in, or are currently affiliated with a U.S. institute, 39.1 percent are foreign-born. For those who won the Prize since 2000, 42.9 percent are foreign-born.[249]

ii. Top Cancer Researchers

- According to research by NFAP:
  - "The researchers at the top 7 cancer centers come from more than 50 countries. Among the 56 countries, the leading country of origin for cancer researchers is China, followed, in order, by India, Germany, Canada, the United Kingdom, Italy, Russia, Lebanon, South Korea, France, Japan, Israel, Australia, Greece, Spain, Brazil, Taiwan and Argentina. Researchers from China account for 21 percent of the foreign-born cancer researchers at the 7 centers (and 8 percent of all cancer researchers at the 7 centers). India was the country of origin for 10 percent of the foreign-born researchers, followed by Germany and Canada at 7 percent, and the United Kingdom at 6 percent."[250]
  - Overall, 42 percent of the researchers at the top 7 cancer research centers are immigrants, whereas only 13 percent of the U.S. population are immigrants.[251]

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247 "The Wolf Prize," Wolf Foundation, *available at* https://wolffund.org.il/the-wolf-prize/#The_Prize, *accessed* August 20, 2024.

248 Siegel-Itzkovich, Judy, "Who Are the 2023 'Israeli Nobel' Wolf Prize Winners?," The Jerusalem Post, June 16, 2023, *available at* https://www.jpost.com/j-spot/article-746584, *accessed* August 9, 2024.

249 "About the Wolf Foundation," Wolf Foundation, *available at* https://wolffund.org.il/about-wolf-foundation/, *accessed* August 20, 2024. Immigrant recipients are defined as individuals who were born outside the United States and its territories. Recipients' birthplaces were identified through Internet research. If the birthplace could not be found, the recipient was assumed to be native-born American. Source document for each immigrant recipient's birthplace is available upon request.

250 Anderson, Stuart, "The Contributions of Immigrants to Cancer Research in America," National Foundation for American Policy, February 2013, p. 2.

251 Anderson, Stuart, "Immigrant Scientists Invaluable to the United States," International Educator, May/June 2015, *available at* https://nfap.com/wp-content/uploads/2015/05/International-Educator.May-June-2015.pdf, *accessed* August 12, 2024, p. 8.

Table 4.2: Share of Immigrant Cancer Researchers at America's Top Cancer Centers, 2010

Cancer Research Center	% of Cancer Researchers Who Are Immigrants
University of Texas MD Anderson Cancer Center	62
Memorial Sloan-Kettering Cancer Center	56
Fox Chase Cancer Center	44
John Hopkins Sidney Kimmel Comprehensive Cancer Center	35
Dana-Farber Cancer Institute	33
UCSF Helen Diller Family Comprehensive Cancer Center	32
Fred Hutchinson Cancer Research Center	30

Note: The author conducted an analysis of 1,500 biographies of cancer researchers on staff at the 7 comprehensive cancer centers that received the highest amount of P30 grants from the National Cancer Institute in 2010 based on cancer center website research and direct interviews with individual researchers and cancer center staff.

Source: Anderson, Stuart, "Immigrant Scientists Invaluable to the United States," *Frontlines*, May/June 2015, *available at* https://nfap.com/wp-content/uploads/2015/05/International-Educator.May-June-2015.pdf, *accessed* August 12, 2024.

iii. Howard Hughes Investigators

- The Investigator Program at the Howard Hughes Medical Institute provides long-term funding for researchers in biological and biomedical science.[252] In 2024, at least 12 of the 26 appointed investigators (46 percent) were immigrants.[253]

D. Other Prizes in STEM

i. Fields Medal

- The Fields Medal is "regarded as 'mathematics' closest analog to the Nobel Prize."[254] It is awarded "every four years by the International Congress of

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252 "Investigator Program," Howard Hughes Medical Institute, *available at* https://www.hhmi.org/programs/investigators, *accessed* August 6, 2024.

253 Tomlinson, Alyssa and Jim Keeley, "HHMI Invests over $300 Million in 26 New Investigators," Howard Hughes Medical Institute, July 23, 2024, *available at* https://www.hhmi.org/news/hhmi-invests-over-300-million-26-new-investigators, *accessed* August 6, 2024.

254 "Fields Medal," Wolfram MathWorld, *available at* https://mathworld.wolfram.com/FieldsMedal.html, *accessed* July 12, 2024.

Mathematicians" to "at least two, with a strong preference for four" recipients under the age of 40.[255]

- Since its inception in 1936, 62 percent of Fields Medal recipients affiliated with a United States research institution have been immigrants (*see* **Figure 4.3** below).[256] Moreover, since 2002, only 1 Fields Medal recipient affiliated with a U.S. research institution was not immigrant.[257]
- In 2014, Maryam Mirzakhani, born in Iran, became the first woman to be awarded the Fields Medal since its inception in 1936.[258] After 2 consecutive victories in the International Mathematical Olympiad, she started a Ph.D. program at Harvard University.[259] She was a professor of mathematics at Stanford University before she passed away in 2017 from breast cancer.[260]
- In 2018, Akshay Venkatesh, born in Australia, became the second Australian to be awarded the Fields Medal.[261] He received his Ph.D. from Princeton University when he was 20 years old.[262] He is currently a professor at Institute of Advanced Study at Princeton University.[263]

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255 "Fields Medal," Wolfram MathWorld, *available at* https://mathworld.wolfram.com/FieldsMedal.html, *accessed* July 12, 2024; "Fields Medal," International Methematical Union, *available at* https://www.mathunion.org/imu-awards/fields-medal, *accessed* July 12, 2024.

256 "Fields Medal," International Methematical Union, *available at* https://www.mathunion.org/imu-awards/fields-medal, *accessed* July 12, 2024. Recipients' birthplaces were identified through Internet research. If the birthplace could not be found, the recipient was assumed to be native-born American. Source document for each immigrant recipient's birthplace is available upon request.

257 "Fields Medal," International Methematical Union, *available at* https://www.mathunion.org/imu-awards/fields-medal, *accessed* July 12, 2024. Recipients' birthplaces were identified through Internet research. If the birthplace could not be found, the recipient was assumed to be native-born American. Source document for each immigrant recipient's birthplace is available upon request.

258 "Stanford's Maryam Mirzakhani Wins Fields Medal," Stanford Report, August 12, 2014, *available at* https://news.stanford.edu/stories/2014/08/stanfords-maryam-mirzakhani-wins-fields-medal, *accessed* July 12, 2024.

259 "Stanford's Maryam Mirzakhani Wins Fields Medal," Stanford Report, August 12, 2014, *available at* https://news.stanford.edu/stories/2014/08/stanfords-maryam-mirzakhani-wins-fields-medal, *accessed* July 12, 2024.

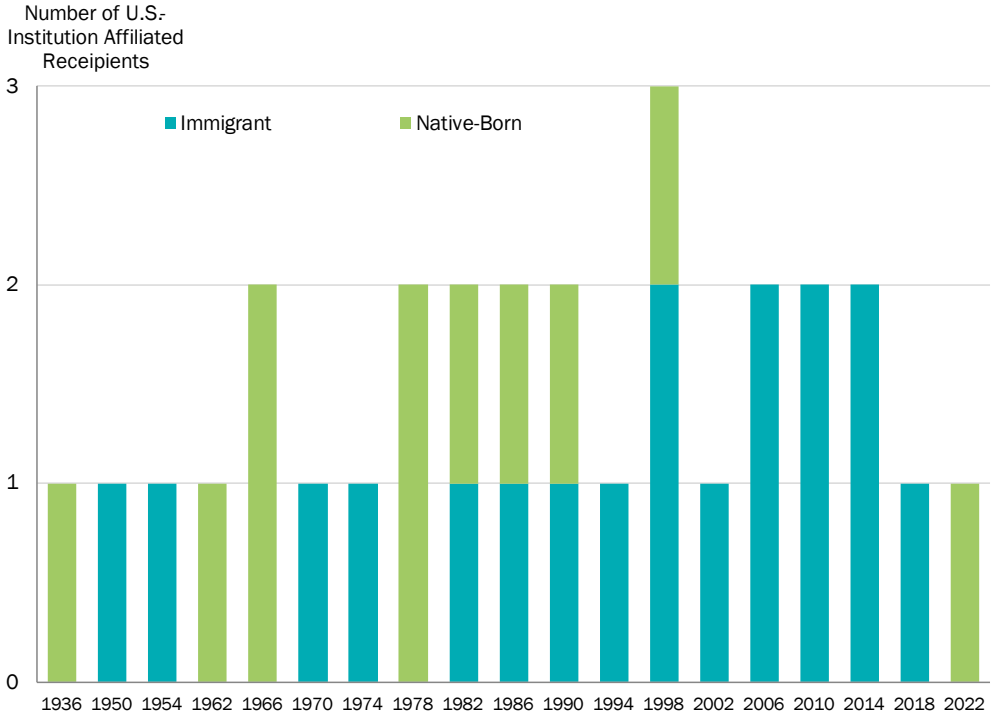
260 "Maryam Mirzakhani, Stanford Mathematican and Fields Medal Winder, Dies," Stanford University, July 15, 2017, *available at* https://news.stanford.edu/stories/2017/07/maryam-mirzakhani-stanford-mathematician-and-fields-medal-winner-dies.

261 "At the Centre of the Mathematical Universe: In Conversation with Akshay Venkatesh," The Mathematics Magazine, *available at* https://bhavana.org.in/akshay-venkatesh/, *accessed* August 23, 2024, *accessed* August 23, 2024.

262 Mannix, Liam, "Aussie Genius Who Started University at 12 Wins 'Nobel Prize of Maths'," The Sydney Morning Herald, August 1, 2018, *available at* https://www.smh.com.au/national/aussie-genius-who-started-university-at-12-wins-nobel-prize-of-maths-20180801-p4zuuy.html, *accessed* August 20, 2024.

263 "Vita - Akshay Venkatesh," *available at* https://www.ias.edu/sites/default/files/math/faculty/akshay/akshaycv-2018.pdf, *accessed* August 23, 2024.

Figure 4.3: Number of Fields Medalists Affiliated with a U.S. Institution at the Time of Award by Nativity Status, 1936–2022



Note: Recipients' birthplaces were identified through Internet research.

Sources:
[1] "List of Fields Medalists," International Mathematical Union, 2022, *available at* https://www.mathunion.org/imu-awards/fields-medal, *accessed* July 12, 2024.
[2] Source document for each immigrant recipient's birthplace is available upon request.

ii. Turing Award

- The A. M. Turing Award recognizes major contributions of lasting importance to computing. It is "often referred to as the 'Nobel Prize of Computing'."[264]
  - Since the award's creation in 1966, 14 of the 61 U.S. winners (23 percent) have been immigrants, and 18 of the 61 U.S. winners (30 percent) have been first- or second-generation immigrants.[265]
  - From 2010 to 2023, 8 of the 18 U.S. Turning Award recipients (44 percent) were first- or second-generation immigrants (*see* **Figure 4.4** below).

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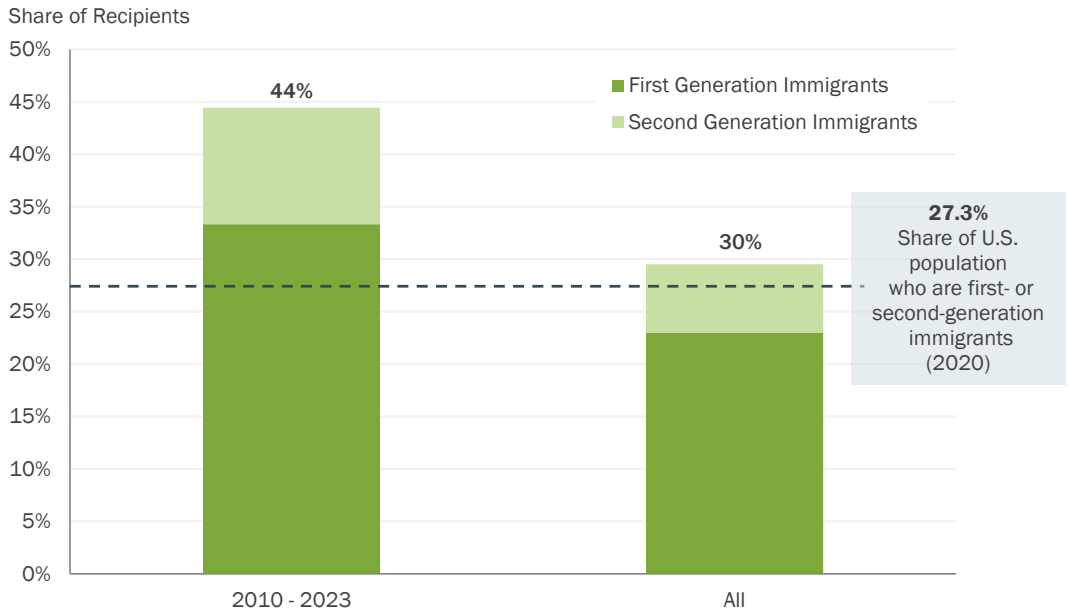
[264] "Alphabetical Listing of A.M. Turing Award Winners," Association for Computing Machinery, *available at* https://amturing.acm.org/alphabetical.cfm, *accessed* July 12, 2024.

[265] Complete list of Turing Award winners is available online. "Alphabetical Listing of A.M. Turing Award Winners," Association for Computing Machinery, *available at* https://amturing.acm.org/alphabetical.cfm, *accessed* July 12, 2024. Data on award winners' country of birth are available on each winner's Turing Award profile.

Figure 4.4: Share of Turing Award Recipients by Immigrant Generation, 1966–2023



Notes:
[1] First-Generation immigrants are individuals born outside the United States and its surrounding territories to parents neither of whom was a U.S. citizen.
[2] Second-Generation immigrants are individuals born in the United States or its surrounding territories, with at least 1 first-generation parent.
[3] Recipients' parents whose birthplace could not be identified were assumed to have been born in the United States.

Sources:
[1] Association for Computing Machinery, "Alphabetical Listing of A.M. Turing Award Winners," *available at* https://amturing.acm.org/alphabetical.cfm, *accessed* July 12, 2024.
[2] A.M. Turing award winner profiles for each recipient, *available at* https://amturing.acm.org, *accessed* July 12, 2024.
[3] Pew Research Center, "Immigrant Share of Population," *available at* https://www.pewresearch.org/chart/immigrant-share-of-population/, *accessed* July 12, 2024.

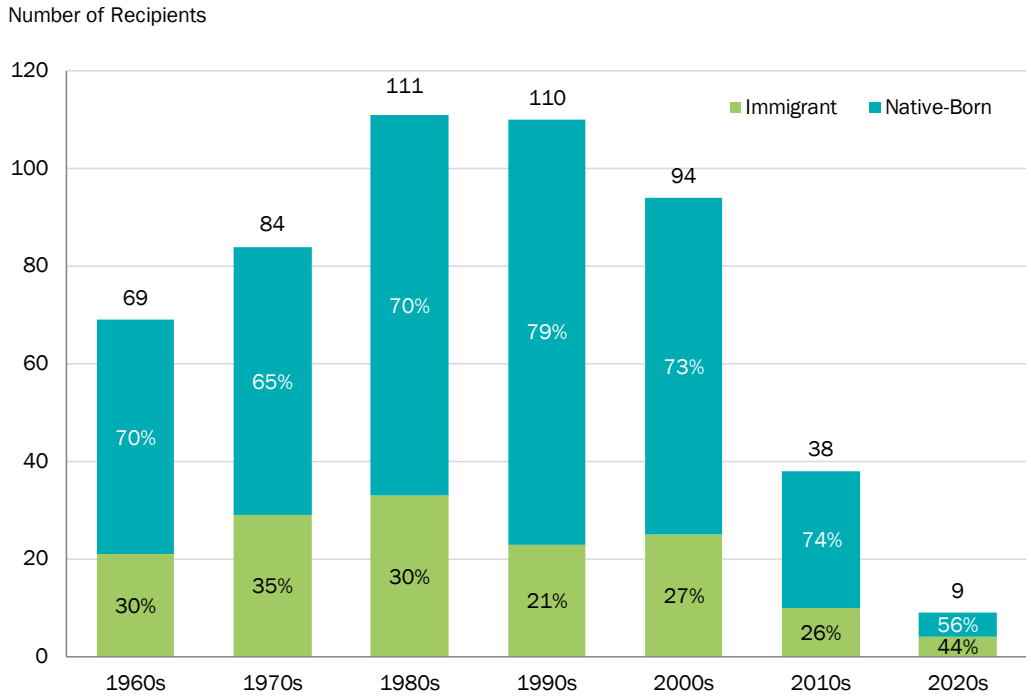
iii. National Medal of Science

- The National Medal of Science was established in 1959 as the President's Award "to individuals deserving of special recognition by reason of their outstanding contributions to knowledge in the physical, biological, mathematical, engineering, or social and behavioral sciences."[266] Successful candidates "must be a U.S. citizen or national, or a permanent resident who is applying for U.S. citizenship."[267]

[266] "The National Medal of Science," U.S. National Science Foundation, *available at* https://new.nsf.gov/od/honorary-awards/national-medal-of-science, *accessed* August 12, 2024.

[267] "The National Medal of Science," U.S. National Science Foundation, *available at* https://new.nsf.gov/od/honorary-awards/national-medal-of-science, *accessed* August 12, 2024.

Figure 4.5: Number of National Medal of Science Recipients by Nativity Status, 1963–2023



Note: The National Medal of Science was not awarded between 2014 and 2022. President Obama granted no awards in his final 2 years in office and President Trump granted none during all 4 years in office. *See, e.g.,* "National Civilian Medals Improvement Act."

Sources:
[1] National Science Foundation, "The President's National Medal of Science," *available at* https://www.nsf.gov/od/nms/results.jsp#, *accessed* July 12, 2024.
[2] Recipient birthplaces were identified from their biographies available from National Science & Technology Medals Foundation, "Laureates," *available at* https://www.nationalmedals.org/laureates, *accessed* July 12, 2024.
[3] "National Civilian Medals Improvement Act," *available at* https://www.govtrack.us/congress/bills/117/s2927/summary.
[4] Source document for each immigrant recipient's birthplace is available upon request.

- Of the 515 recipients of the National Medal of Science, 28 percent were immigrants.[268]
  - 41 percent of recipients in mathematics or computer science were immigrants;
  - 33 percent of recipients in physics and engineering were immigrants;
  - 24 percent of recipients in biology were immigrants;
  - 13 percent of recipients in chemistry were immigrants; and

[268] "The National Medal of Science," U.S. National Science Foundation, *available at* https://new.nsf.gov/od/honorary-awards/national-medal-of-science, *accessed* August 12, 2024.

- 15 percent of recipients in behavioral and social science were immigrants.

iv. Breakthrough Prize

- The Breakthrough Prize was founded by technology entrepreneurs to honor and support "the world's top scientists working in the fundamental sciences – the disciplines that ask the biggest questions and find the deepest explanations."[269] Laureates "in the fields of Life Sciences, Fundamental Physics and Mathematics" receive $3 million each in prize money.[270] The first prizes were awarded in 2012 in Fundamental Physics; prizes in Life Sciences and Mathematics began in 2013 and 2015 respectively.[271]
- 43 percent of Breakthrough Prize winners who were affiliated with a U.S. institution at the time of the award were immigrants. In fundamental physics, 43 percent of the U.S.-affiliated winners were immigrants and in mathematics, 73 percent of the winners were immigrants (*see* **Figure 4.6** below).

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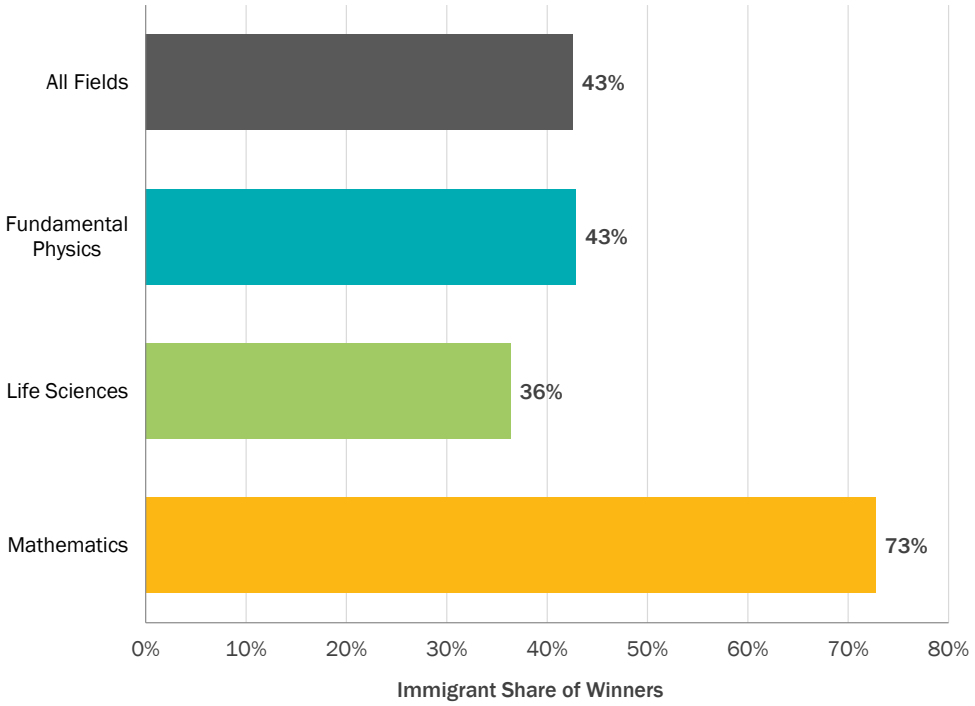
269 "Breakthrough Prize - About," Breakthrough Prize, *available at* https://breakthroughprize.org/about, *accessed* July 15, 2024.

270 "Breakthrough Prize - About," Breakthrough Prize, *available at* https://breakthroughprize.org/about, *accessed* July 15, 2024.

271 "Breakthrough Prize in Fundamental Physics," Breakthrough Prize, *available at* https://breakthroughprize.org/Laureates/1/P1/Y2012, *accessed* July 15, 2024; "Breakthrough Prize in Life Science," Breakthrough Prize, *available at* https://breakthroughprize.org/Prize/2, *accessed* July 15, 2024; "Breakthrough Prize in Mathematics," Breakthrough Prize, *available at* https://breakthroughprize.org/Laureates/3/P1/Y2015, *accessed* July 15, 2024.

Figure 4.6: Share of Immigrants among All Breakthrough Prize Winners Affiliated with a U.S. Institution at the Time of the Award, 2012–2023



Notes:
[1] Immigrant recipients are defined as individuals who were born outside the United States and its territories to non-American parents.
[2] Recipients birthplaces were identified Internet research. If birthplace could not be found, the recipient was assumed to be native-born American.
[3] The 2020 Breakthrough Prize in Fundamental Physics was shared equally among 347 scientists from various countries. This figure does not include this award. *See, e.g.,* "The Event Horizon Telescope Collaboration."

Sources:
[1] "Breakthrough Prizes Laureates 2012-2017," Breakthroughprize.org, 2017, *available at* https://breakthroughprize.org/Laureates/3/P1/Y2015, https://breakthroughprize.org/Laureates/3/P1/Y2016, https://breakthroughprize.org/Laureates/3/P1/Y2017, https://breakthroughprize.org/Laureates/2/P1/Y2013, https://breakthroughprize.org/Laureates/2/P1/Y2014, https://breakthroughprize.org/Laureates/2/P1/Y2015, https://breakthroughprize.org/Laureates/2/P1/Y2016, https://breakthroughprize.org/Laureates/2/P1/Y2017, https://breakthroughprize.org/Laureates/1/P1/Y2012, https://breakthroughprize.org/Laureates/1/P1/Y2013, https://breakthroughprize.org/Laureates/1/P1/Y2014, https://breakthroughprize.org/Laureates/1/P1/Y2015, https://breakthroughprize.org/Laureates/1/P1/Y2016, and https://breakthroughprize.org/Laureates/1/P1/Y2017, *accessed* March 20, 2017.
[2] "Breakthrough Prizes Laureates 2018-2024," Breakthroughprize.org, 2024, *available at* https://breakthroughprize.org/Laureates/3/P1/Y2018, https://breakthroughprize.org/Laureates/3/P1/Y2019, https://breakthroughprize.org/Laureates/3/P1/Y2020, https://breakthroughprize.org/Laureates/3/P1/Y2021, https://breakthroughprize.org/Laureates/3/P1/Y2022, https://breakthroughprize.org/Laureates/3/P1/Y2023, https://breakthroughprize.org/Laureates/3/P1/Y2024, https://breakthroughprize.org/Laureates/2/P1/Y2018, https://breakthroughprize.org/Laureates/2/P1/Y2019, https://breakthroughprize.org/Laureates/2/P1/Y2020, https://breakthroughprize.org/Laureates/2/P1/Y2021, https://breakthroughprize.org/Laureates/2/P1/Y2022, https://breakthroughprize.org/Laureates/2/P1/Y2023, https://breakthroughprize.org/Laureates/2/P1/Y2024, https://breakthroughprize.org/Laureates/1/P1/Y2018, https://breakthroughprize.org/Laureates/1/P1/Y2019, https://breakthroughprize.org/Laureates/1/P1/Y2020, https://breakthroughprize.org/Laureates/1/P1/Y2021, https://breakthroughprize.org/

Laureates/1/P1/Y2022, https://breakthroughprize.org/Laureates/1/P1/Y2023, and https://breakthroughprize.org/Laureates/1/P1/Y2024, *accessed* August 23, 2024.
[3] "The Event Horizon Telescope Collaboration," Breakthroughprize,org, 2020, *available at* https://breakthroughprize.org/Laureates/1/L3870, accessed July 15, 2024.
[4] Source document for each immigrant recipient's birthplace is available upon request.

E. Membership in the National Academy of Sciences

"Members are elected to the National Academy of Sciences [NAS] in recognition of their distinguished and continuing achievements in original research. Membership is a widely accepted mark of excellence in science and is considered one of the highest honors that a scientist can receive. Current NAS membership totals approximately 2,700 members and 500 international members, of which approximately 200 have received Nobel prizes."[272] Immigrants constitute 33 percent of NAS members elected in 2024 affiliated with a U.S. institution and 55 percent of NAS members elected in 2024 in biochemistry, engineering sciences, and mathematics affiliated with a U.S. institution.[273]

F. Medal of Freedom

- The Presidential Medal of Freedom is an award bestowed by the President of the United States that was established in 1963 by President John F. Kennedy.[274] It replaced the Medal of Freedom previously established by President Harry S. Truman in 1945 to honor civilian service during World War II.[275]
- The award "is the Nation's highest civilian honor, presented to individuals who have made exemplary contributions to the prosperity, values, or security of the United States, world peace, or other significant societal, public or private endeavors."[276]
- Recipients have included individuals who have made significant contributions to wide range of areas, including the arts, business and economics, education, history, humanitarian service, law, media, military service, philanthropy, politics, and government, religion, sports, and science and technology.

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272 "Membership Overview," National Academy of Sciences, *available at* https://www.nasonline.org/membership/membership-overview/, *accessed* August 12, 2024.

273 "Member Directory," National Academy of Sciences, *available at* https://www.nasonline.org/membership/member-directory/, *accessed* August 22, 2024. Immigrants were identified as individuals who were born outside the United States and its territories. Recipients' birthplaces were identified through internet research. If birthplace could not be found, the recipient was assumed to be born outside the United States and its territories if they had a college degree from an institution outside the United States and its territories. Source document for each immigrant recipient's birthplace or college degree information is available upon request.

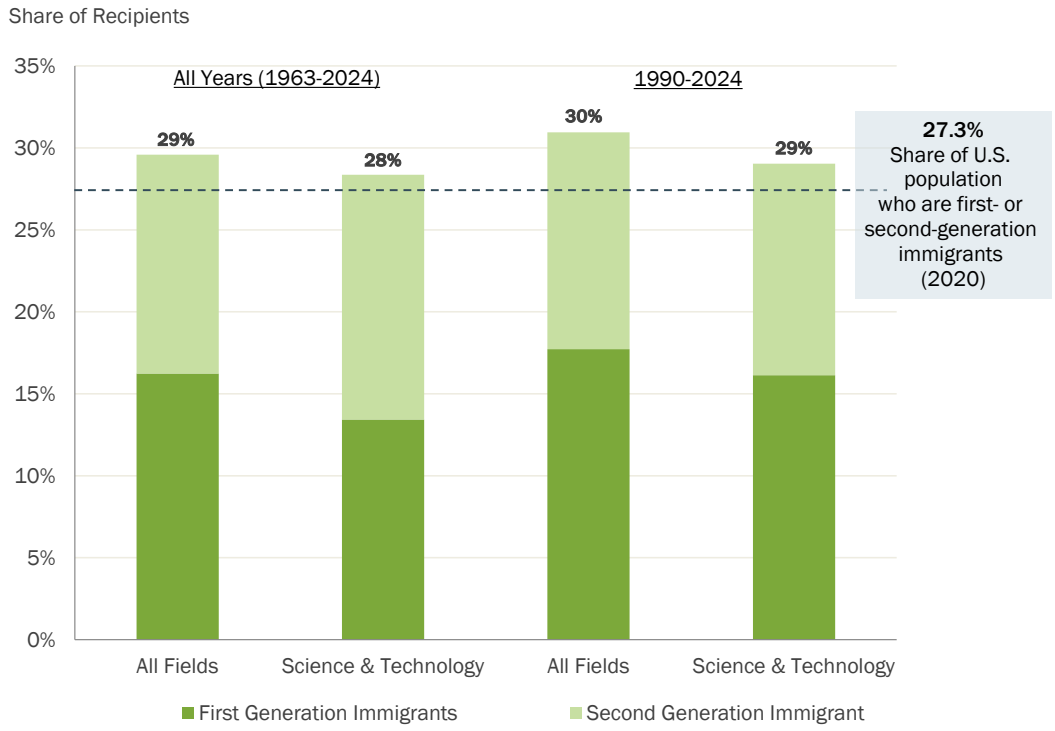
274 "President Kennedy's Executive Order 11085: Presential Medal of Freedom," JFK Library, *accessed* August 23, 2024.

275 Ray, Michael, "Presidential Medal of Freedom," Encyclopaedia Britannica, August 19, 2024, *available at* https://www.britannica.com/topic/Presidential-Medal-of-Freedom, *accessed* August 23, 2024.

276 "President Biden Announces Recipients of the Presidential Medal of Freedom," The White House, May 3, 2024, *available at* https://www.whitehouse.gov/briefing-room/statements-releases/2024/05/03/president-biden-announces-recipients-of-the-presidential-medal-of-freedom-2/ *accessed* August 1, 2024.

- Immigrant recipients and second-generation immigrants accounted for 29 percent of all Presidential Medal of Freedom recipients since its inception and 28 percent of recipients in the area of science and technology (*see* **Figure 4.7**).[277]
- Between 1990 and 2024, over 29 percent of the recipients in the area of science and technology were immigrants or second-generation immigrants. As a point of reference, in 2020, first- and second-generation immigrants accounted for about 27.3 percent of the U.S. adult population; this share was even lower in the previous decade in which the medal was awarded.[278]

Figure 4.7: Share of Presidential Medal of Freedom Recipients by Nativity Status, All Years (1963-2024) and 1990-2024



Notes:
[1] First-Generation immigrants are individuals born outside the United States and its surrounding territories to parents neither of whom was a U.S. citizen.
[2] Second-Generation immigrants are individuals born in the United States or its surrounding territories, with at least 1 first-generation parent.
[3] Recipients and recipients' parents whose birthplace could not be identified were assumed to have been born in the United States.

Sources:
[1] United States Senate, "Presidential Medal of Freedom Recipients," *available at* https://www.senate.gov/senators/SenatorsPresidentialMedalFreedom.htm, *accessed* July 12, 2024.
[2] Pew Research Center, "Immigrant share of Population," *available at* https://www.pewresearch.org/chart/immigrant-share-of-population/, *accessed* July 12, 2024.

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277 Science and Technology areas are medicine, science, space exploration, and computing.

278 "Immigrant Share of Population," Pew Research Center, June 15, 2023, *available at* https://www.pewresearch.org/chart/immigrant-share-of-population/, *accessed* August 20, 2024.

[3] Source document for each immigrant recipient's birthplace is available upon request.

G. The Carnegie Corporation Pride of America Honorees

- "Every Fourth of July, Carnegie Corporation of New York celebrates remarkable Americans – all naturalized citizens – who have enriched and strengthened our democracy through their actions and contributions."[279]
- The 2024 honorees include naturalized citizens from 16 countries and a wide range of backgrounds, such as:[280]
  - The Dean of the School of Public Health at Brown University; 3 Nobel laureates, and 5 professors at top universities.
  - The founder and Chief Executive Officer of Nvidia, and the Chief Artificial Intelligence scientist for Facebook artificial intelligence research.
  - A former justice of the Supreme Court of California,[281] as well as the first United Nations Capital Development Fund (UNCDF) Goodwill Ambassador for Gender Equality in Access to Finance,[282] and a former superintendent.[283]
  - A stand-up comedian, a conductor, a rapper, authors, an artist, a publisher, a librarian, entrepreneurs, a novelist, and an Emmy-winner actor.

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279 "2024 Great Immigrants," Carnegie Corporation of New York, *available at* https://www.carnegie.org/awards/great-immigrants/2024-great-immigrants/, *accessed* August 23, 2024.

280 "2024 Great Immigrants," Carnegie Corporation of New York, *available at* https://www.carnegie.org/awards/great-immigrants/2024-great-immigrants/, *accessed* August 23, 2024.

281 "Mariano-Florentino (Tino) Cuellar," Carnegie Corporation of New York, *available at* https://www.carnegie.org/awards/honoree/mariano-florentino-tino-cuellar/, *accessed* August 23, 2024.

282 "Sonia Gardner," Carnegie Corporation of New York, *available at* https://www.carnegie.org/awards/honoree/sonia-gardner/, *accessed* August 23, 2024.

283 "Eliu Misael (Michael) Hinojosa," Carnegie Corporation of New York, *available at* https://www.carnegie.org/awards/honoree/michael-hinojosa, *accessed* August 23, 2024.

V. Immigration, Crime, and Terrorism

KEY TAKEAWAYS

- Empirical studies on incarceration rates show that immigrants, including undocumented immigrants, are less likely to be incarcerated than the native-born U.S. population. These observed differences in incarceration rates are unlikely to be explained by the deportation of immigrants who commit crimes. Instead, academic studies suggest that the differences can be explained by the selection of individuals who immigrate to the United States, who have a lower propensity to commit crime and/or are more responsive to deterrents compared to an average native-born American in the United States.
- Empirical studies on crime rates do not find evidence to support the claim that higher rates of immigration are associated with increases in crime rates. To the contrary, findings from these studies suggest that immigration can reduce crime, especially violent crime, over time.
- Analysis of the Profiles of Individual Radicalization in the United States (PIRUS) data shows that immigrants accounted for less than 9 percent of the 1,827 individuals who were reported to have been radicalized to violent and non-violent extremism in the United States from 2010 to 2021, despite making up over 12 percent of the U.S. population.
- Empirical studies find that higher rates of immigration are not associated with a higher rate of terrorism. To the contrary, some studies find that increases in immigration could lead to lower levels of terrorist attacks in that country.

A. Immigrants, Including Undocumented Immigrants, Are Less Likely to Be Incarcerated than the Native-Born U.S. Population

Empirical studies on incarceration rates show that immigrants, including undocumented immigrants, are less likely to be incarcerated than native-born U.S. population. These observed differences in incarceration rates are unlikely to be explained by the deportation of immigrants who commit crimes. Instead, academic studies suggest that the differences can be explained by the selection of individuals who immigrate to the United States, who have a lower propensity to commit crime and/or are more responsive to deterrents compared to an average native-born American in the United States. For example:

- Abramitzky et al. (2024), in a study using national representative data on "incarceration rates for immigrants and the US-born" from 1870-2020 by researchers from Stanford, Princeton, Northwestern, and UC Davis, find that "[A]s a group, immigrant men have had a lower incarceration rate than US-born men for the last 150 years of American history."[284] The same study finds that:
  - "Starting in 1960, immigrants have become significantly less likely to be incarcerated than the US-born, even though as a group, immigrants now are relatively younger, more likely to be non-white, have lower incomes, and are less educated—characteristics often associated with involvement in the criminal justice system."[285]
  - "Today, immigrants are 60% less likely to be incarcerated than all US-born men, and 30% less likely to be incarcerated relative to white US-born men."[286]
  - "A substantial decline in incarceration rates relative to the US-born among immigrants from all major sending regions.
    - European immigrants historically had slightly lower incarceration rates to US-born men, but recently experience far lower incarceration rates.
    - Chinese immigrants had similar incarceration rates to the US-born before 1960, but today have significantly lower incarceration rates.
    - Mexican and Central American immigrants had particularly high incarceration rates in the past but have had lower incarceration rates than the US-born since 1960.
    - From 2005 on, Mexican and Central American immigrants have been more likely to be incarcerated than white US-born men, although we note that a large portion of the increase in Mexican and Central American incarceration after 2005 is driven by detentions in federal immigration facilities, often for immigration-related offenses; when we drop areas home to the largest Immigration and Customs Enforcement (ICE) facilities, the gap

284 Abramitzky, Ran et al., "Law-Abiding Immigrants: The Incarceration Gap between Immigrants and the U.S.-Born, 1870-2020," NBER Working Paper Series, March 2024, No. 31440, pdf p. 3.

285 Abramitzky, Ran et al., "Law-Abiding Immigrants: The Incarceration Gap between Immigrants and the U.S.-Born, 1870-2020," NBER Working Paper Series, March 2024, No. 31440, pdf p. 3.

286 Abramitzky, Ran et al., "Law-Abiding Immigrants: The Incarceration Gap between Immigrants and the U.S.-Born, 1870-2020," NBER Working Paper Series, March 2024, No. 31440, pdf p. 3.

relative to US-born white men moderates or disappears in most years."[287]

- Rumbaut et al. (2006), in a study that analyzes incarceration rates among the male population aged 18 to 39, find that:
  - "The incarceration rate of the U.S.-born (3.51 percent) was four times the rate of the foreign-born (0.86 percent). The latter was half the 1.71 percent rate for non-Hispanic white natives, and thirteen times less than the 11.6 percent incarceration rate for native black men."[288]
  - "The advantage for immigrants vis-à-vis natives applies to every ethnic group without exception. Almost all of the Asian immigrant groups have lower incarceration rates than the Latin American groups (the exception involves foreign-born Laotians and Cambodians, whose rate of 0.92 percent is still well below that for non-Hispanic white natives)."[289]
- Bersani et al. (2014), in a study analyzing a sample of high-risk adjudicated youth containing first and second-generation immigrants, find that "first generation immigrants are less likely to be involved in serious offending and to evidence persistence in offending, and appear to be on a path toward desistance much more quickly than their peers."[290]
- A 2018 study by U.S. Government Accountability Office (GAO) finds that:
  - "Based on a random sample of criminal aliens incarcerated in federal prisons during fiscal years 2011 through 2016 and based on a random sample of [State Criminal Alien Assistance Program] criminal aliens incarcerated in state prisons and local jails during fiscal years 2010 through 2015, GAO estimated […] [among the] approximately 197,000 federal criminal aliens included in GAO's analysis, […] 42 percent of the offenses that these criminal aliens were arrested for were related to immigration and 26 percent were related to drugs or traffic violations."[291]
- Empirical research on undocumented immigrants also indicates that they have lower incarceration rates than the native-born U.S. population. For example:

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287 Abramitzky, Ran et al., "Law-Abiding Immigrants: The Incarceration Gap between Immigrants and the U.S.-Born, 1870-2020," NBER Working Paper Series, March 2024, No. 31440, pdf pp. 3-4.

288 Rumbaut, Rubén G. et al., "Immigration and Incarceration: Patterns and Predictors of Imprisonment among First- and Second-Generation Young Adults," *Immigration and Crime: Race, Ethnicity, and Violence*, edited by Martínez, Ramiro, Jr. and Abel Valenzuela, Jr., p. 5.

289 Rumbaut, Rubén G. et al., "Immigration and Incarceration: Patterns and Predictors of Imprisonment among First- and Second-Generation Young Adults," *Immigration and Crime: Race, Ethnicity, and Violence*, edited by Martínez, Ramiro, Jr. and Abel Valenzuela, Jr., p. 5.

290 Bersani, Bianca E., Thomas A. Loughran, and Alex R. Piquero, "Comparing Patterns and Predictors of Immigrant Offending among a Sample of Adjudicated Youth," Journal of Youth and Adolescence, 2014, Vol. 43, pp. 1914-1933, at p. 1914.

291 "Criminal Alien Statistics - Information on Incarcerations, Arrests, Convictions, Costs, and Removals," United States Government Accountability Office, July 2018, pdf p. 2.

- Gunadi (2021), in a study on the "institutionalization rate of undocumented immigrants," finds that "despite possessing characteristics usually associated with crime, undocumented immigrants are 33% less likely to be institutionalized compared to US natives."[292] The author also concludes that "there is no evidence that undocumented immigrants who have spent more time in the USA are more likely to be institutionalized compared to those who have been in the USA for a shorter time."[293]
- Light, He, and Robey (2020), in an analysis of crime rates in Texas between 2012 and 2018, find that "undocumented immigrants have substantially lower crime rates than native-born citizens and legal immigrants across a range of felony offenses. Relative to undocumented immigrants, US-born citizens are over 2 times more likely to be arrested for violent crimes."[294]

- Butcher and Piehl (2007) examine whether the lower incarceration rates of immigrants in the United States are "linked to increased deportation, immigrant self-selection, or deterrence."[295]
  - The authors "rule[d] out deportation as an important mechanical factor for the observed differences in institutionalization"[296] because "the Anti-Terrorism and Effective Death Penalty Act increased the list of criminal acts for which noncitizens must be detained" and "the speed of removal of deportable aliens may critically affect immigrants' institutionalization rates."[297] The authors discuss how an earlier study by Butcher and Piehl (2000) shows that "immigrants under a deportation order spent more time incarcerated for a given sentence than similar natives—perhaps because backlogs in the system meant that immigrants awaiting deportation waited in prison until the [Immigration and Naturalization

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292 Gunadi, Christian, "On the Association between Undocumented Immigration and Crime in the United States," Oxford Economic Papers, 2021, Vol. 73, No. 1, pp. 200-224, at p. 200.

293 Gunadi, Christian, "On the Association between Undocumented Immigration and Crime in the United States," Oxford Economic Papers, 2021, Vol. 73, No. 1, pp. 200-224, at p. 200.

294 Light, Michael T., Jingying He, and Jason P. Robey, "Comparing Crime Rates between Undocumented Immigrants, Legal Immigrants, and Native-Born Us Citizens in Texas," Proceedings of the National Academy of Sciences of the United States of America, December 22, 2020, Vol. 117, No. 51, pp. 32340-32347, at pdf p. 1.

295 Butcher, Kristin F. and Anne Morrison Piehl, "Why Are Immigrants' Incarceration Rates to Low? Evidence on Selective Immigration, Deterrence, and Deportation," NBER Working Paper Series, July 2007, No. 13229, pdf p. 2.

296 Butcher, Kristin F. and Anne Morrison Piehl, "Why Are Immigrants' Incarceration Rates to Low? Evidence on Selective Immigration, Deterrence, and Deportation," NBER Working Paper Series, July 2007, No. 13229, pdf p. 4.

297 Butcher, Kristin F. and Anne Morrison Piehl, "Why Are Immigrants' Incarceration Rates to Low? Evidence on Selective Immigration, Deterrence, and Deportation," NBER Working Paper Series, July 2007, No. 13229, pdf p. 20.

Service] could clear their cases."[298] Together, "[t]hese effects would tend to inflate immigrants' relative incarceration rates."[299]

- Instead, the authors conclude that lower incarceration rates of immigrants are likely related to the "the process of migration [that] selects individuals who either have lower criminal propensities or are more responsive to deterrent effects than the average native."[300] They observe that "[i]mmigrants who were already in the country reduced their relative institutionalization probability over the decades; and the newly arrived immigrants in the 1980s and 1990s seem to be particularly unlikely to be involved in criminal activity, consistent with increasingly positive selection along this dimension."[301]

B. Empirical Research Does Not Show Evidence of a Positive Correlation Between Immigration and Crime Rates

Empirical studies on crime rates do not find evidence to support the claim that higher rates of immigration are associated with increases in crime rates. To the contrary, findings from these studies suggest that immigration can reduce crime, especially violent crime, over time. These studies support the observations of Robert J. Sampson, the Woodford L. and Ann A. Flowers University Professor at Harvard University, who noted, "Cities of concentrated immigration are some of the safest places around."[302]

- Data do not show evidence that increases in immigration is correlated with higher rates of criminal offenses in the United States.
  - Analysis of the Federal Bureau of Investigation's (FBI) Uniform Crime Reporting Program Data indicates that between 2010 and 2021, the rate of criminal offenses in the United States decreased even as immigrants' share of the total U.S. population increased (*see* **Figure 5.1**).[303]

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298 Butcher, Kristin F. and Anne Morrison Piehl, "Why Are Immigrants' Incarceration Rates to Low? Evidence on Selective Immigration, Deterrence, and Deportation," NBER Working Paper Series, July 2007, No. 13229, pdf p. 21.

299 Butcher, Kristin F. and Anne Morrison Piehl, "Why Are Immigrants' Incarceration Rates to Low? Evidence on Selective Immigration, Deterrence, and Deportation," NBER Working Paper Series, July 2007, No. 13229, pdf p. 21.

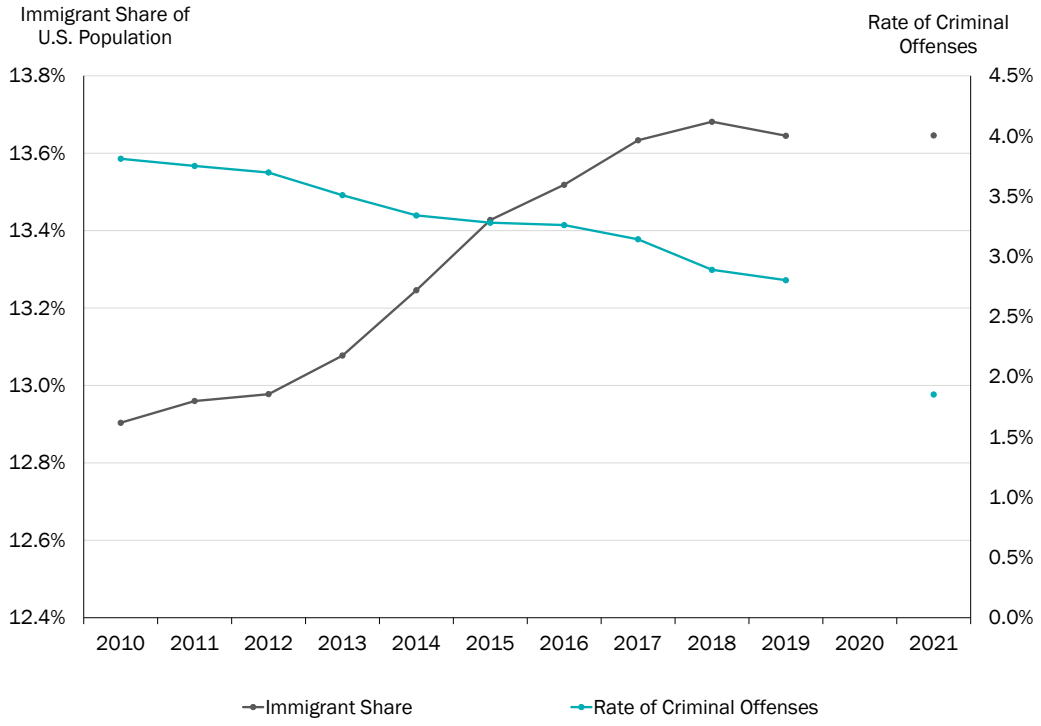
300 Butcher, Kristin F. and Anne Morrison Piehl, "Why Are Immigrants' Incarceration Rates to Low? Evidence on Selective Immigration, Deterrence, and Deportation," NBER Working Paper Series, July 2007, No. 13229, pdf p. 2.

301 Butcher, Kristin F. and Anne Morrison Piehl, "Why Are Immigrants' Incarceration Rates to Low? Evidence on Selective Immigration, Deterrence, and Deportation," NBER Working Paper Series, July 2007, No. 13229, pdf p. 2.

302 Sampson, Robert J., "Rethinking Crime and Immigration," Contexts, 2008, Vol. 7, No. 1, pp. 28-33, at pdf p. 30.

303 The data used to identify criminal offenses is "Uniform Crime Reporting Program Data: Offenses Known and Clearances by Arrest, United States, 2021" which is "a compilation of offenses reported to law enforcement agencies in the United States." In addition, "the FBI has limited the type of crimes included in this compilation to those crimes which people are most likely to report to police and those crimes which occur frequently enough to be analyzed across time. Crimes included are criminal homicide, forcible rape, robbery, aggravated assault, burglary, larceny-theft, and motor vehicle theft." Uniform Crime Reporting Program Data: Offenses Known and Clearances by Arrest, United States, 2021.

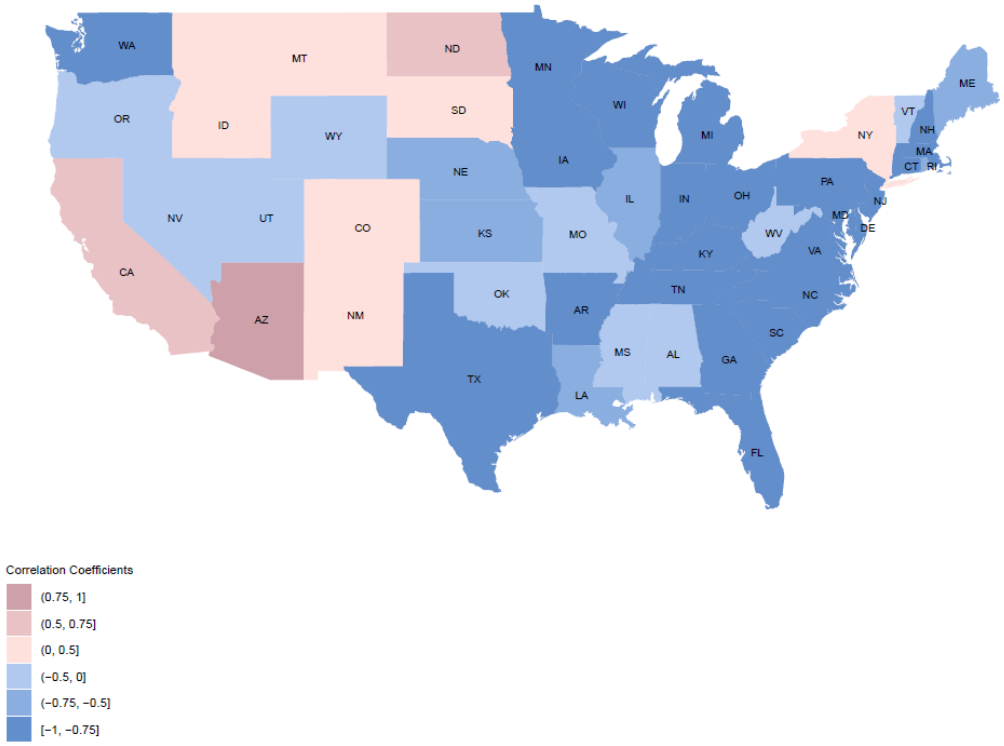
Figure 5.1: Immigrant Share of the U.S. Population and Rate of Criminal Offenses, 2010-2021



Sources:
[1] United States. Federal Bureau of Investigation. Uniform Crime Reporting Program Data: Offenses Known and Clearances by Arrest, United States, 2010–2021," Inter-university Consortium for Political and Social Research [distributor], *available at* https://www.icpsr.umich.edu/web/NACJD/series/57?start=0&SERIESQ=57&ARCHIVE=NACJD&PUBLISH_STATUS=PUBLISHED&sort=TIMEPERIOD_SORT%20desc&rows=50&q=offense , *accessed* June 7, 2024.
[2] U.S. Census Bureau, American Community Survey, 2010–2021 Public Use Microdata Sample (PUMS) 1-year estimates, *available at* https://www2.census.gov/programs-surveys/acs/data/pums/, *accessed* June 19, 2024.

- **Figure 5.2** plots the correlation coefficients between the rate of criminal offenses and the immigrant share for each state in the United States between 2010 and 2021. For 40 out of 50 states and Washington D.C., the correlation coefficient is negative (shown in blue on the map), meaning that an increase in the immigrant share of the state population is correlated with a decrease in the crime rate.

Figure 5.2: Correlation Coefficients between Immigrant Share and Rate of Criminal Offenses in the United States, 2010-2021



Note: The correlation coefficient is a measure that determines the degree to which 2 variables' movements are associated. The range of values for the correlation coefficient is -1.0 to 1.0. In particular, a negative correlation coefficient means that an increase in the immigrant share is correlated with a decrease in the crime rate.

Sources:
[1] United States. Federal Bureau of Investigation. Uniform Crime Reporting Program Data: Offenses Known and Clearances by Arrest, United States, 2010–2021," Inter-university Consortium for Political and Social Research [distributor], *available at* https://www.icpsr.umich.edu/web/NACJD/series/57?start=0&SERIESQ=57&ARCHIVE=NACJD&PUBLISH_STATUS=PUBLISHED&sort=TIMEPERIOD_SORT%20desc&rows=50&q=offense , *accessed* June 7, 2024.
[2] U.S. Census Bureau, American Community Survey, 2010–2021 Public Use Microdata Sample (PUMS) 1-year estimates, *available at* https://www2.census.gov/programs-surveys/acs/data/pums/, *accessed* June 19, 2024.

- Reviews of studies on immigration and crime conclude that there is no evidence the higher rates of immigration increase crime rates. For example:
  - Light and Anadon (2020), in a review of research on immigration and violent crime, conclude that there is "very little evidence that immigration increases violent crime and the fact that we see similar results using different routes to answer interrelated questions gives us confidence that this finding is robust. At the very least, the convergence on the lack of findings suggestive of a positive relationship between immigration (legal

or otherwise) and violence seriously undermines arguments that immigration jeopardizes public safety."[304]

- Ousey and Kubrin (2018), in a review of research on immigration and crime from 1993 to 2014, conclude that empirical studies indicate that, "overall, the immigration-crime association is negative" albeit the negative association is "very weak."[305]
- Tufail et al. (2023), in a study analyzing data across 30 Organization for Economic Co-operation and Development (OECD) countries from 1988-2018 including the United States, find that "no statistical evidence exists to relate an increase in the number of immigrants to the rise of any kind of crime. If there is [evidence of an association,] we found a significant negative association between immigrants and only one of the six kinds of crime studied."[306]

- Below are a few examples of research on immigration and crime rates in the United States:
  - Butcher and Piehl (1998), in a study "investigat[ing] the relationship between immigration into a metropolitan area and that area's crime rate during the 1980s," find that "cities with high crime rates tend to have large numbers of immigrants. However, controlling for the demographic characteristics of the cities, recent immigrants appear to have no effect on crime rates."[307]
  - Reid et al. (2005), in a study "explor[ing] how the foreign-born population influences criminal offending across a sample of metropolitan areas," find that "[a]fter controlling for a host of demographic and economic characteristics, [...] immigration does not increase crime rates, and some aspects of immigration lessen crime in metropolitan areas."[308]
  - Wadsworth (2010), in a study "evaluat[ing] the influence of immigration on crime in urban areas across the United States between 1990 and 2000," finds that "cities with the largest increases in immigration

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304 Light, Michael T. and Isabel Anadon, "Immigration and Violent Crime: Triangulating Findings across Diverse Studies," Marquette Law Review, 2020, Vol. 103, No. 3, pp. 939-961, at p. 961.

305 Ousey, Graham C. and Charis E. Kubrin, "Immigration and Crime: Assessing a Contentious Issue," Annual Review of Criminology, 2018, Vol. 1, pp. 63-84, at p. 63.

306 Tufail, Muhammad et al., "Does More Immigration Lead to More Violent and Property Crimes? A Case Study of 30 Selected Oecd Countries," Economic Research-Ekonomska Istraživanja, 2023, Vol. 36, No. 1, pp. 1867-1885, at p. 1867.

307 Butcher, Kristin F. and Anne Morrison Piehl, "Cross-City Evidence on the Relationship between Immigration and Crime," Journal of Policy Analysis and Management, Summer 1998, Vol. 17, No. 3, pp. 457-493, at p. 457.

308 Reid, Lesley Williams, Harald E. Weiss, Robert M. Adelman, and Charles Jaret, "The Immigration–Crime Relationship: Evidence across Us Metropolitan Areas," Social Science Research, December 2005, Vol. 34, No. 4, pp. 757-780, at p. 757.

between 1990 and 2000 experienced the largest decreases in homicide and robbery during the same time."[309]

- Martinez et al. (2010), in a "longitudinal analysis of homicides in San Diego neighborhoods between 1980 and 2000," find that "[c]onsistent with the revitalization thesis, results show that the increased size of the foreign-born population reduces lethal violence over time. Specifically, we find that neighborhoods with a larger share of immigrants have fewer total, non-Latino White, and Latino homicide victims."[310]

- These findings in the United States are also consistent with studies on immigration and crime in other countries, including the UK,[311] Italy,[312] and Chile.[313]

- Empirical studies also do not find evidence that undocumented immigration increases violent crimes. For example:

  - Light and Miller (2018), in a "longitudinal empirical analysis of the macro-level relationship between undocumented immigration and violent crime" using data from "all 50 states and Washington, DC, from 1990 to 2014," find that "undocumented immigration does not increase violence." The authors find that "[r]ather, the relationship between undocumented immigration and violent crime is generally negative, although not significant in all specifications. Using supplemental models of victimization data and instrumental variable methods, we find little evidence that these results are due to decreased reporting or selective migration to avoid crime."[314]

  - Green (2016), in a study on the rates of violent crime and drug arrests in the United States from 2012-2014 and foreign-born and Mexican nationals living in the United States, finds that "[d]ata uniformly show no association between immigrant population size and increased violent crime."[315] Although, "there appears to be a small but significant

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309 Wadsworth, Tim, "Is Immigration Responsible for the Crime Drop? An Assessment of the Influence of Immigration on Changes in Violent Crime between 1990 and 2000," Social Science Quarterly, June 2010, Vol. 91, No. 2, pp. 531-553, at p. 531.

310 Martínez, Ramiro, Jr., Jacob I. Stowell, and Matthew T. Lee, "Immigration and Crime in an Era of Transformation: A Longitudinal Analysis of Homicides in San Diego Neighborhoods, 1980-2000," Criminology, August 2010, Vol. 48, No. 3, pp. 797-829, at pp. 797-798.

311 Bell, Brian, Francesco Fasani, and Stephen Machin, "Crime and Immigration: Evidence from Large Immigrant Waves," The Review of Economics and Statistics, 2013, Vol. 95, No. 4, pp. 1278-1290.

312 Bianchi, Milo, Paolo Buonanno, and Paolo Pinotti, "Do Immigrants Cause Crime?," Journal of the European Economics Association, December 2012, Vol. 10, No. 6, pp. 1318-1347.

313 Ajzenman, Nicolás, Patricio Domingues, and Ralmundo Undurraga, "Immigration, Crime, and Crime (Mis)Perceptions," American Economic Journal: Applied Economics, October 2023, Vol. 15, No. 4, pp. 142-176.

314 Light, Michael T. and TY Miller, "Does Undocumented Immigration Increase Violent Crime?," Criminology, 2018, Vol. 56, No. 2, pp. 370-401, at p. 370.

315 Green, David, "The Trump Hypothesis: Testing Immigrant Populations as a Determinant of Violent and Drug-Related Crime in the United States," Social Science Quarterly, September 2016, Vol. 97, No. 3, pp. 506-524, at p. 506.

association between undocumented immigrant populations and drug-related arrests," the study did not find evidence linking "Mexican or undocumented Mexican immigrants specifically to violent or drug-related crime."[316]

C. Immigrants Are No More Likely to Be Radicalized in the United States than the Native-Born U.S. Population

- Analysis of the PIRUS data shows that immigrants accounted for less than 9 percent of the 1,827 individuals who were reported to have been radicalized to violent and non-violent extremism in the United States from 2010 to 2021 (*see* **Table 5.1**). During the same period, immigrants accounted for over 12 percent of the U.S. population (*see* **Figure 5.1**).

Table 5.1: Status of Individuals Reported to Have Been Radicalized in the United States, 2010-2021

Category	Number of Individuals	Percent of Total
Native-Born Citizen	1,664	91.1%
Naturalized Citizen	48	2.6%
Legal Permanent Resident	98	5.4%
Temporary Resident	8	0.4%
Undocumented Resident	9	0.5%
Total	**1,827**	**100.0%**

Note: Residency statuses marked as "unknown" are excluded from this analysis.

Source: START, "Profiles of Individual Radicalization in the United States (PIRUS)," *available at* http://www.start.umd.edu/publication/profiles-individual-radicalization-united-states-preliminary-findings, *accessed* July 31, 2024.

D. Immigration Is Not Associated with Higher Rates of Terrorism

Empirical studies find that higher rates of immigration are not associated with a higher rate of terrorism. To the contrary, some studies find that increases in immigration could lead to lower levels of terrorist attacks in that country. For example:

- Bove and Böhmelt (2016), in "spatial-econometric analyses of migrant inflows and the number of terrorist attacks in 145 countries between 1970 and 2000," find that migrant inflows per se actually lead to a lower level of terrorist attacks"[317] and "[m]ore migration generally (i.e., when immigration is not

316 Green, David, "The Trump Hypothesis: Testing Immigrant Populations as a Determinant of Violent and Drug-Related Crime in the United States," Social Science Quarterly, September 2016, Vol. 97, No. 3, pp. 506-524, accessed August 16, 2024, p. 506.

317 Bove, Vincenzo and Tobias Böhmelt, "Does Immigration Induce Terrorism?," Journal of Politics, April 2016, Vol. 78, No. 2, pp. 572-588, accessed August 16, 2024, p. 572.

necessarily linked to terrorism in the migrants' countries of origin) into a country is associated with a lower level of terrorist attacks."[318]

- According to a 2023 policy analysis by the Cato Institute, an "independent, nonpartisan 501(c)(3) research institution,"[319] "[t]he chance of a person perishing in a terrorist attack committed by a foreigner on U.S. soil over the 48-year period studied here [(i.e., from 1975 to 2022)] is 1 in 4.3 million per year. […] [T]he annual chance of an American being murdered in a terrorist attack by a refugee is about 1 in 3.3 billion, while the annual chance of being murdered in an attack committed by an illegal immigrant is zero."[320] The study also finds that during the study period, "the chance of being murdered by a foreign-born terrorist on U.S. soil was 1 in 4,338,984 a year. The annual chance of being murdered by someone other than a foreign-born terrorist in a normal homicide was more than 316 times greater than the chance of dying in a foreign-born terrorist's attack."[321]
- Light and Thomas (2021), in an analysis of "sentencing and prosecutorial data to measure terrorism-related activity, and multiple data sources on the criminological, socioeconomic, and demographic context from all 50 states from 1990 to 2014," find that "undocumented immigration has virtually no effect on terrorist incidents. More specifically, since 1990 we find that increases in the unauthorized population has not significantly affected the likelihood of terror events, either positively or negatively. This is true for lawful immigration as well."[322]

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318 Bove, Vincenzo and Tobias Böhmelt, "Does Immigration Induce Terrorism?," Journal of Politics, April 2016, Vol. 78, No. 2, pp. 572-588, accessed August 16, 2024, p. 584.

319 "The Cato Institute is an independent, nonpartisan 501(c)(3) research institution located in Washington, DC." "Financial Information, Funding, and Independence," CATO Institute, *available at* https://www.cato.org/about/financial-information-funding-independence, *accessed* September 2, 2024.

320 Nowrasteh, Alex, "Terrorism and Immigration: A Risk Analysis, 1975-2022," CATO Policy Analysis, August 22, 2023, No. 958, pdf p. 1.

321 Nowrasteh, Alex, "Terrorism and Immigration: A Risk Analysis, 1975-2022," CATO Policy Analysis, August 22, 2023, No. 958, pdf p. 2.

322 Light, Michael T. and Julia T. Thomas, "Undocumented Immigration and Terrorism: Is There a Connection?," Social Science Research, February 2021, Vol. 94, No. 102512, pp. 1, 7.

VI. Immigrants' Use of Public Services and Government Benefits and Its Fiscal Impact

KEY TAKEAWAYS

- A myriad of social services and government benefits are available to residents of the United States. Non-citizen immigrants are restricted from many of the services and benefits that are available to U.S. citizens. Lawfully present immigrants frequently face waiting periods and other requirements to access certain public services and government benefits, while undocumented immigrants are largely barred from accessing these social programs altogether.
- Immigrants, as individuals, are less likely to benefit from social services than native-born Americans, and when immigrants do, they tend to use lower levels of benefits than native-born Americans.
- Immigrants—including undocumented immigrants—support federal, state, and local governments by paying various taxes.
- Empirical research finds that immigrants generally have a net positive fiscal impact over their lifetime. These studies likely underestimate the total fiscal impact of immigrants, as they do not fully capture immigrants' indirect contributions to the U.S. economy, such as job creation.

The availability of public services and government benefits in the United States varies widely across different immigrant groups. Section VI.A describes the eligibility criteria of various social programs to provide context for the empirical studies on immigrants' utilization of, and contributions to, public services and government benefits as well as their fiscal impact, discussed in Section VI.B.

A. Public Services and Government Benefits Available to Immigrants

A variety of restrictions often apply to qualified non-citizens and other lawfully present immigrants. Undocumented immigrants are frequently barred from accessing most public services and government benefits altogether.[323]

[323] Broder, Tanya and Gabrielle Lessard, "Overview of Immigrant Eligibility for Federal Programs," National Immigration Law Center, May 2024, pp. 2-3.

- Qualified non-citizens eligible for federal social programs include:[324]
  - Lawful permanent residents (LPRs, or Green Card holders);
  - Refugees granted asylum ("asylees") or withholding of deportation/removal, and conditional entrants (refugees granted entry before 1980);
  - Non-citizens granted humanitarian parole by the U.S. Department of Homeland Security (DHS) for a period of at least 1 year;
  - Cuban and Haitian entrants;
  - Victims of domestic violence, their spouses, children, and/or their parents;
  - Victims of human trafficking, their spouses, children, siblings, parents, or individuals with pending applications for a victim of human trafficking visa;[325]
  - Members of federally recognized Indian tribes or American Indians born in Canada; and
  - Citizens of the Marshall Islands, Micronesia, and Palau living in U.S. states or territories (Compact of Free Association (COFA) migrants).[326]
- Other lawfully present immigrants eligible for federal social programs include:[327]
  - Immigrants with humanitarian statuses (including applicants for asylum and those with Temporary Protected Status, Special Immigrant Juvenile Status, or withholding of deportation/removal under the Convention Against Torture);
  - Immigrants with valid nonimmigrant visas (e.g., student visas); and

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[324] Broder, Tanya and Gabrielle Lessard, "Overview of Immigrant Eligibility for Federal Programs," National Immigration Law Center, May 2024, pp. 2-3.

[325] These immigrants must have a pending application for a T nonimmigrant visa. "Victims of Human Trafficking: T Nonimmigrant Status," U.S. Citizenship and Immigration Services, April 29, 2024, *available at* https://www.uscis.gov/humanitarian/victims-of-human-trafficking-t-nonimmigrant-status, *accessed* August 23, 2024.

[326] "Coverage for Lawfully Present Immigrants," *available at* https://www.healthcare.gov/immigrants/lawfully-present-immigrants/, *accessed* July 8, 2024.

[327] "Coverage for Lawfully Present Immigrants," *available at* https://www.healthcare.gov/immigrants/lawfully-present-immigrants/, *accessed* July 8, 2024.

- Immigrants with legal residency conferred by other laws (such as Lawful Temporary Residents, and those covered by the LIFE Act or the Family Unity Program).[328, 329]

- All remaining non-citizen immigrants are considered undocumented immigrants.[330]

The sections below discuss the public services and government benefits available to certain immigrants under federal and state programs in 4 categories: healthcare, social services and general assistance, education, and legal and advocacy services.

i. Healthcare

In general, qualified non-citizens who have been in the United States for at least 5 years can access a range of healthcare benefits comparable to those available to U.S. citizens. At the other end of the spectrum, undocumented immigrants cannot enroll in most federal- or state-funded programs.[331]

Table 6.1 below summarizes healthcare benefits available to different groups of immigrants. The remainder of this section provides additional details about selected programs.

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328 Qualified non-citizens are also lawfully present immigrants. "Coverage for Lawfully Present Immigrants," *available at* https://www.healthcare.gov/immigrants/lawfully-present-immigrants/, *accessed* July 8, 2024.

329 While these categories (i.e., qualified non-citizens and lawfully present immigrants) were first defined in the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA), they have continued to evolve over time. Most recently, eligibility for all federal benefit programs was granted to COFA migrants in 2024. Broder, Tanya and Gabrielle Lessard, "Overview of Immigrant Eligibility for Federal Programs," National Immigration Law Center, May 2024, p.4 ("In 2024, Congress declared that COFA migrants are "qualified" immigrants for all federal public benefits programs and removed restrictions on their eligibility for federal means-tested public benefits."); "Consolidation Appropriations Act," U.S. Congress, 2024, § 209(f).

330 "Key Facts on Health Coverage of Immigrants," Kaiser Family Foundation, September 17, 2023, *available at* https://www.kff.org/racial-equity-and-health-policy/fact-sheet/key-facts-on-health-coverage-of-immigrants/, *accessed* August 19, 2024 ("Noncitizens include lawfully present and undocumented immigrants.").

331 *See, e.g.*, "Health Coverage for Immigrants," Centers for Medicare & Medicaid Services, *available at* https://www.healthcare.gov/immigrants/, *accessed* August 23, 2024. *See also*, additional discussion below on state-funded programs.

Table 6.1: Overview of Healthcare Benefits Eligibility[332]

	U.S. Citizens	Qualified Non-Citizens	Other Lawfully Present Immigrants	Undocumented Immigrants
Affordable Care Act (ACA) Marketplace	Yes	Yes, with lower premium and out-of-pocket costs depending on income level		No
Medicaid	Yes	Yes, but must fulfill 5-year waiting period and meet state income and residency rules	No	No, except emergency Medicaid
Children's Health Insurance Program (CHIP)	Yes	Yes, but must fulfill 5-year waiting period and meet state income and residency rules	No	No
Emergency Care	Yes	Yes, based on Emergency Medical Treatment and Labor Act (EMTALA)		
Premium-Free Medicare Part A	Yes	Yes, provided the beneficiary or beneficiary's spouse has at least 10 years of U.S. work history		No
Medicare Enrollment	Yes	Yes, provided the beneficiary is an LPR with 5 years of continuous U.S. residence	No	No

[332] "Coverage for Lawfully Present Immigrants," *available at* https://www.healthcare.gov/immigrants/lawfully-present-immigrants/, *accessed* July 8, 2024; "Emergency Health Services for Undocumented Aliens: Section 1011 of the Medicare Modernization Act," Centers for Medicare & Medicaid Services, May 9, 2005, *available at* https://www.cms.gov/newsroom/fact-sheets/emergency-health-services-undocumented-aliens, *accessed* August 23, 2024; Kean, Natalie and Tiffany Huyenh-Cho, "Older Immigrants and Medicare," Justice in Aging, August 2024, pp. 2-3.

- **ACA Marketplace:** U.S. citizens and lawfully present immigrants may obtain healthcare through the Affordable Care Act (ACA) Marketplace.[333]
  - Premium tax credits (which lower monthly premiums) as well as other savings may be available to those with annual incomes between 100 and 400 percent of the federal poverty level (FPL).[334]
  - Additionally, U.S. citizens and lawfully present immigrants who have been residing in the United States for less than 5 years and have annual incomes below the FPL may receive premium subsidies as if their annual incomes were equal to the FPL.[335]
- **Medicaid and CHIP:** U.S. citizens and qualified non-citizens with annual incomes below 200 percent of the FPL may be eligible for Medicaid and the Children's Health Insurance Program (CHIP).[336]
  - In general, qualified non-citizens must fulfill a 5-year waiting period before becoming eligible for Medicaid or CHIP. However, the waiting period may be waived for refugees, asylees, and LPRs.[337]
  - 28 states plus the District of Columbia have opted to eliminate the waiting period and extend coverage to all lawfully present immigrant children and pregnant people by adopting the Immigrant Children's Health Improvement Act (ICHIA) (*see* **Figure 6.1** below).

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333 "Coverage for Lawfully Present Immigrants," *available at* https://www.healthcare.gov/immigrants/lawfully-present-immigrants/, *accessed* July 8, 2024.

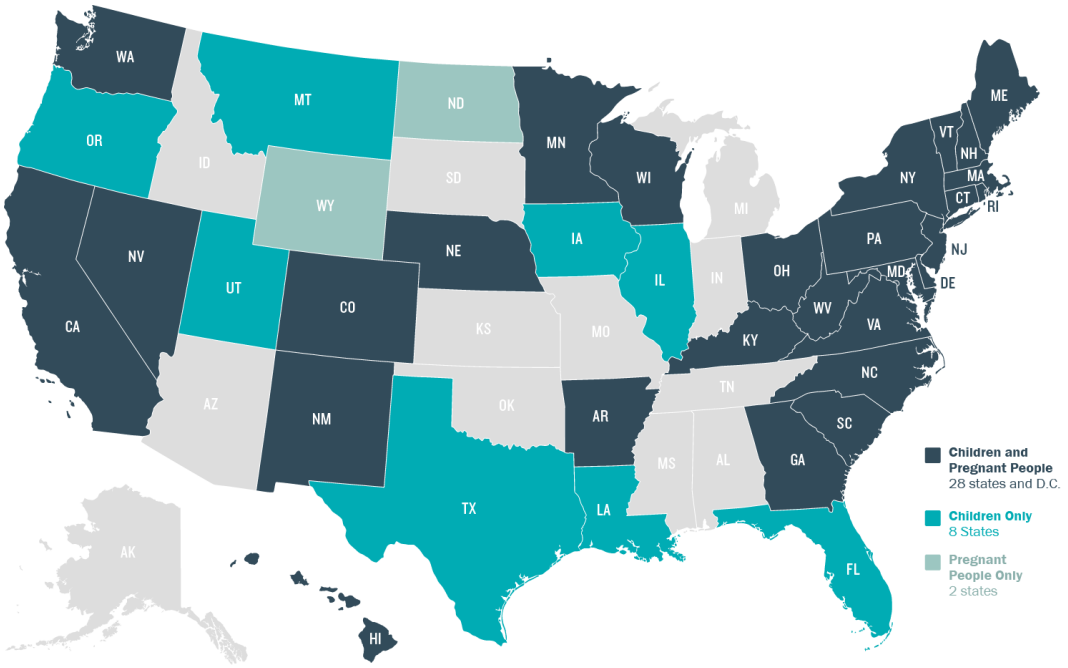
334 "Coverage for Lawfully Present Immigrants," *available at* https://www.healthcare.gov/immigrants/lawfully-present-immigrants/, *accessed* July 8, 2024. Premium tax credits and savings on Marketplace coverage may also be available to lawfully present immigrants whose annual household income is below 100 percent FPL but are not otherwise eligible for Medicaid.

335 "Patient Protection and Affordable Care Act Health-Related Portions of the Health Care and Education Reconciliation Act of 2010," U.S. House of Representatives, May 2010, Section 1401/36B IRC, p. 113 ("SPECIAL RULE FOR CERTAIN INDIVIDUALS LAWFULLY PRESENT IN THE UNITED STATES.—If— '(i) a taxpayer has a household income which is not greater than 100 percent of an amount equal to the poverty line for a family of the size involved, and ''(ii) the taxpayer is an alien lawfully present in the United States, but is not eligible for the [M]edicaid program under title XIX of the Social Security Act by reason of such alien status, the taxpayer shall, for purposes of the credit under this section, be treated as an applicable taxpayer with a household income which is equal to 100 percent of the poverty line for a family of the size involved.").

336 Rudowitz, Robin, Jennnifer Tolbert, and Anthony Damico, "A Closer Look at the Remaining Uninsured Population Eligible for Medicaid and Chip," Kaiser Family Foundation, March 15, 2024, *available at* https://www.kff.org/uninsured/issue-brief/a-closer-look-at-the-remaining-uninsured-population-eligible-for-medicaid-and-chip/, *accessed* August 23, 2024("All states have opted to set eligibility thresholds for children in Medicaid and CHIP at higher levels, in most states above 200% of poverty. In Medicaid expansion states, eligibility for adults was expanded to 138% of poverty ($20,783 for an individual and $35,632 for a family of [3] in 2024) and extended to adults without children. In non-expansion states, eligibility is limited for adults, often to below half of the federal poverty level, and generally only available for parents of dependent children.").

337 "Coverage for Lawfully Present Immigrants," *available at* https://www.healthcare.gov/immigrants/lawfully-present-immigrants/, *accessed* July 8, 2024.

Figure 6.1: Federally Funded Coverage of Lawfully Residing Immigrant Children and Pregnant People Without a 5-Year Waiting Period as of June 2024[338]



- **State-Funded Programs:** Many states either extend or supplement federally funded programs.
  - 22 states plus the District of Columbia also extend CHIP coverage to pregnant people, regardless of immigration status, through the CHIP From-Conception-to-End-of-Pregnancy (FCEP) option (*see* **Figure 6.2**). Of these, 10 states supplement FCEP to provide postpartum coverage.[339]
  - 6 states plus the District of Columbia also provide fully state-funded coverage to income-eligible adults, regardless of immigration status.[340]

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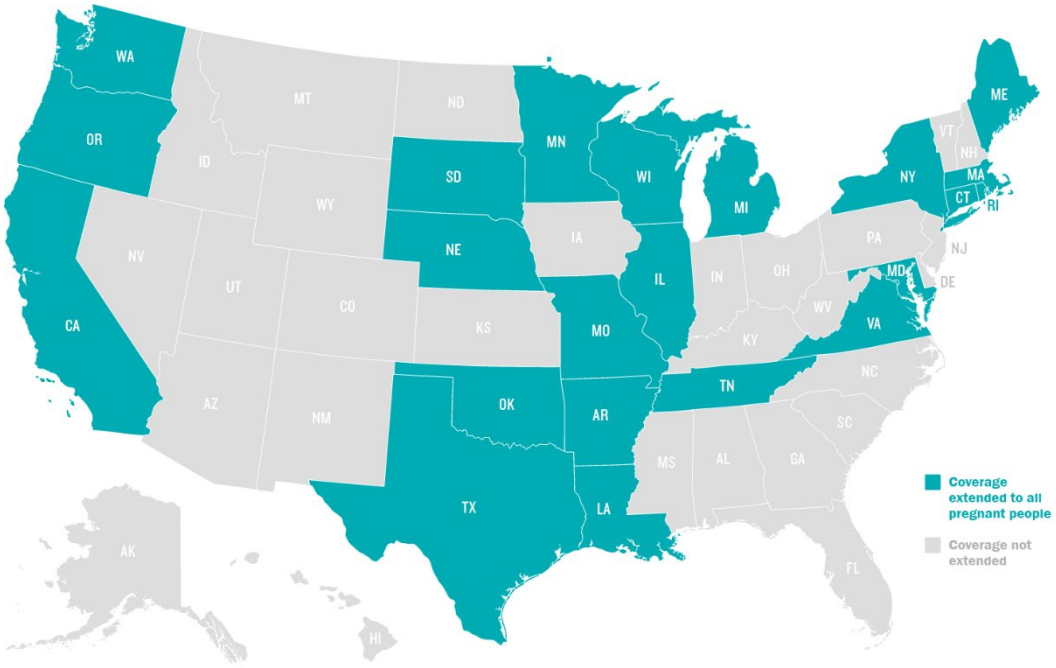
338 Pillai, Akash, Drishti Pillai, and Samantha Artiga, "State Health Coverage for Immigrants and Implications for Health Coverage and Care," Kaiser Family Foundation, May 1, 2024, *available at* https://www.kff.org/racial-equity-and-health-policy/issue-brief/state-health-coverage-for-immigrants-and-implications-for-health-coverage-and-care/, *accessed* August 23, 2024, Figure 1.

339 Pillai, Akash, Drishti Pillai, and Samantha Artiga, "State Health Coverage for Immigrants and Implications for Health Coverage and Care," Kaiser Family Foundation, May 1, 2024, *available at* https://www.kff.org/racial-equity-and-health-policy/issue-brief/state-health-coverage-for-immigrants-and-implications-for-health-coverage-and-care/, *accessed* August 23, 2024 ("While other pregnancy-related coverage in Medicaid and CHIP requires 60 days of postpartum coverage, the CHIP FCEP option does not include this coverage. However, some states that took up this option provide postpartum coverage regardless of immigration status either through a CHIP state plan amendment or using state-only funding. Additionally, [10] of the states that have implemented the FCEP option (California, Connecticut, Illinois, Maine, Massachusetts, Minnesota, New York, Oregon, Rhode Island, and Washington) have used state funding or CHIP health services initiatives to extend postpartum coverage to 12 months to individuals regardless of immigration status to align with the Medicaid extension established by the American Rescue Plan Act, and Maryland extends coverage for [4] months postpartum through its health services initiative.").

340 Pillai, Akash, Drishti Pillai, and Samantha Artiga, "State Health Coverage for Immigrants and Implications for Health Coverage and Care," Kaiser Family Foundation, May 1, 2024, *available at* https://www.kff.org/racial-equity-and-

Figure 6.2: State Take-Up of CHIP From-Conception-to-End-of-Pregnancy Option to Cover Pregnant People, Regardless of Immigration Status, as of June 2024[341]



ii. Social Services and General Assistance

While healthcare benefits are generally available to lawfully present immigrants, other social services and general assistance are subject to further restrictions. Table 6.2 below summarizes the eligibility requirements for selected social service and general assistance programs. The remainder of this section provides additional details on these services and programs.

health-policy/issue-brief/state-health-coverage-for-immigrants-and-implications-for-health-coverage-and-care/, *accessed* August 23, 2024, Figure 4.

341 Pillai, Akash, Drishti Pillai, and Samantha Artiga, "State Health Coverage for Immigrants and Implications for Health Coverage and Care," Kaiser Family Foundation, May 1, 2024, *available at* https://www.kff.org/racial-equity-and-health-policy/issue-brief/state-health-coverage-for-immigrants-and-implications-for-health-coverage-and-care/, *accessed* August 23, 2024, Figure 2.

Table 6.2: Overview of Social Services and General Assistance Eligibility[342]

	U.S. Citizens	Qualified Non-Citizens	Other Lawfully Present Immigrants	Undocumented Immigrants
Supplemental Security Income (SSI)	Yes	No, unless minimum work credit or other requirements are met		No
Supplemental Nutrition Assistance Program (SNAP)	Yes	Yes, but may face a 5-year waiting period		No
Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	Yes	Yes	Yes	Yes
Temporary Assistance for Needy Families (TANF)	Yes	Yes, but may face a 5-year waiting period	No	No
Housing Assistance Programs	Yes	Yes, depending on the program		No

- **Supplemental Security Income Program (SSI):** Most non-citizen immigrants who were not lawfully residing in the United States and receiving SSI on August 22, 1996 are excluded from SSI.[343]
  - However, some lawfully present immigrants who entered the United States after August 22, 1996 may be eligible for SSI, including: [344, 345]
    - LPRs with at least 40 quarters of work in the United States;[346]

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342 "SSI Spotlight on SSI Benefits for Noncitizens: Supplemental Security Income (SSI)," Social Security Administration, *available at* https://www.ssa.gov/ssi/spotlights/spot-non-citizens.htm, *accessed* August 23, 2024; "Snap Eligibility for Non-Citizens," U.S. Department of Agriculture, *available at* https://www.fns.usda.gov/...t=Non%2DCitizen%20Eligibility&text=Non%2Dcitizens%20like%20tourists%20and,to%20meet%20a%20waiting%20period, *accessed* August 23, 2024; USDA WIC Eligibility Requirements}; Broder, Tanya and Gabrielle Lessard, "Overview of Immigrant Eligibility for Federal Programs," National Immigration Law Center, May 2024; "Housing for Eligible Non-Citizens," Affordable Housing Online, *available at* https://affordablehousingonline.com/guide/housing-for-immigrants/eligible-noncitizens, *accessed* August 23, 2024; "Hud's Public Housing Program," U.S. Department of Housing and Urban Department.

343 "Supplemental Security Income (SSI) for Noncitizens," Social Security Association, January 2023.

344 These lawfully present non-citizens must be "qualified aliens" as defined by the SSA. "SSI Spotlight on SSI Benefits for Noncitizens: Supplemental Security Income (SSI)," Social Security Administration, *available at* https://www.ssa.gov/ssi/spotlights/spot-non-citizens.htm, *accessed* August 23, 2024.

345 "SSI Spotlight on SSI Benefits for Noncitizens: Supplemental Security Income (SSI)," Social Security Administration, *available at* https://www.ssa.gov/ssi/spotlights/spot-non-citizens.htm, *accessed* August 23, 2024.

346 Quarters of work earned after December 31, 1996, cannot be counted if the applicant, or their spouse who worked, received certain income-based benefits from the U.S. government during that period. "SSI Spotlight on SSI Benefits for Noncitizens: Supplemental Security Income (SSI)," Social Security Administration, *available at* https://www.ssa.gov/ssi/spotlights/spot-non-citizens.htm, *accessed* August 23, 2024.

        - Veterans or active-duty members of the U.S. Armed Forces, their spouses, and children;
        - Immigrants who were lawfully residing in the United States on August 22, 1996 and who are blind or have a qualifying disability;
        - Members of federally recognized Indian tribes or American Indians born in Canada.
    - Eligible qualified non-citizens may be subject to a 5-year waiting period and a 7-year limit on benefits.[347]
- **Supplemental Nutrition Assistance Program (SNAP):** U.S. citizens and most lawfully present immigrants may receive SNAP benefits, provided they do not exceed state income and resource limits, although eligible lawfully present immigrants may face a 5-year waiting period.[348]
    - Lawfully present immigrants who are LPRs, conditional entrants, or victims of domestic violence, or who have been granted humanitarian parole for a period of at least 1 year, are eligible for SNAP only after a 5-year waiting period.[349]
    - The 5-year waiting period is waived for certain lawfully present immigrants, including those under 18 years old, seniors who were lawfully residing in the United States and 65 or older on August 22, 1996, or adults with disabilities, veterans or active-duty members of the U.S. Armed Forces and their families, as well as asylees or individuals withheld from deportation/removal.[350]
- **Special Supplemental Nutrition Program for Women, Infants, and Children (WIC):** Immigration status currently does not affect eligibility for WIC.

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347 "Supplemental Security Income (SSI) for Noncitizens," Social Security Association, January 2023 ("If you entered the United States on or after Aug. 22, 1996, then you may not be eligible for SSI for the first 5 years as a lawfully admitted permanent resident, even if you have 40 credits of earnings."); "SSI Spotlight on SSI Benefits for Noncitizens: Supplemental Security Income (SSI)," Social Security Administration, *available at* https://www.ssa.gov/ssi/spotlights/spot-non-citizens.htm, *accessed* August 23, 2024 ("You may receive SSI for a maximum of 7 years from the date DHS granted you immigration status in one of the following categories, and the status was granted within 7 years of filing for SSI: Refugee under Section 207 of the INA; Asylee under Section 208 of the INA; Noncitizen whose deportation was withheld under Section 243(h) of the INA or whose removal is withheld under Section 241(b)(3) of the INA; "Cuban or Haitian entrant" under Section 501(e) of the Refugee Education Assistance Act of 1980 or in a status that is to be treated as a 'Cuban or Haitian entrant' for SSI purposes; or 'Amerasian immigrant' pursuant to P.L. 100-202, with a class of admission of AM-1 through AM-8.").

348 "Snap Eligibility for Non-Citizens," U.S. Department of Agriculture, *available at* https://www.fns.usda.gov/...t=Non%2DCitizen%20Eligibility&text=Non%2Dcitizens%20like%20tourists%20and,to%20meet%20a%20waiting%20period, *accessed* August 23, 2024.

349 "Snap Eligibility for Non-Citizens," U.S. Department of Agriculture, *available at* https://www.fns.usda.gov/...t=Non%2DCitizen%20Eligibility&text=Non%2Dcitizens%20like%20tourists%20and,to%20meet%20a%20waiting%20period, *accessed* August 23, 2024.

350 "Snap Eligibility for Non-Citizens," U.S. Department of Agriculture, *available at* https://www.fns.usda.gov/...t=Non%2DCitizen%20Eligibility&text=Non%2Dcitizens%20like%20tourists%20and,to%20meet%20a%20waiting%20period, *accessed* August 23, 2024.

- Pregnant, breastfeeding, or postpartum women, as well as infants and children under 5, are eligible for WIC so long as the applicant has a nutrition- or dietary-based condition and their pre-tax income is below the state agency's income standard, which cannot be more than 185 percent of the FPL.[351]
- Individual states may limit participation to U.S. citizens and certain qualified non-citizens, including LPRs and asylees (though no states do so at present).[352]

- **Temporary Assistance for Needy Families (TANF):** U.S. citizens and qualified non-citizens are eligible for TANF in most states, though qualified non-citizens may face a 5-year waiting period.[353]
  - The 5-year waiting period is waived for certain qualified non-citizens, including refugees, asylees, immigrants granted withholding of deportation/removal, Iraqi or Afghan Special Immigrant Visa holders, Cuban and Haitian entrants, victims of human trafficking, and Afghan and Ukrainian parolees. However, individual states may revoke these qualified non-citizens' eligibility after 5 years.[354]
- **Housing Assistance Programs:** Federal housing assistance programs (such as Public Housing and Housing Choice Vouchers) offer varying levels of subsidies and support to U.S. citizens and lawfully present non-citizens.[355]
  - Section 214 of the Housing and Community Development Act of 1980 allows only certain categories of lawfully present non-citizens to access federal rental assistance programs.[356]
  - The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 further restricts lawfully present non-citizens' access to federal

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351 "WIC Program - Immigration Participation in the WIC Program," USDA, January 13, 1997; "WIC Eligibility Requirements," U.S. Department of Agriculture, *available at* https://www.fns.usda.gov/wic/eligibility, *accessed* August 23, 2024.

352 Lacarte, Valerie, Julia Gelatt, and Ashley Podplesky, "Immmigrants' Eligibility for U.S. Public Benefits: A Primer," Migration Policy Institute, January 2024, Section 4.E, p. 17. *See also*, "WIC Program - Immigration Participation in the WIC Program," USDA, January 13, 1997 ("In order to maintain funding equity among the states, the Food and Consumer Service (FCS), under existing regulatory authority, will adjust downward that state's estimated WIC-eligible population by the number of aliens the state declares ineligible.").

353 Broder, Tanya and Gabrielle Lessard, "Overview of Immigrant Eligibility for Federal Programs," National Immigration Law Center, May 2024, footnote 29 ("[5] states (Indiana, Mississippi, Ohio, South Carolina, and Texas) fail to provide TANF to all qualified immigrants who complete the federal [5]-year waiting period.").

354 Lacarte, Valerie, Julia Gelatt, and Ashley Podplesky, "Immmigrants' Eligibility for U.S. Public Benefits: A Primer," Migration Policy Institute, January 2024, p. 6.

355 "Housing for Eligible Non-Citizens," Affordable Housing Online, *available at* https://affordablehousingonline.com/guide/housing-for-immigrants/eligible-noncitizens, *accessed* August 23, 2024; "Hud's Public Housing Program," U.S. Department of Housing and Urban Department.

356 Lacarte, Valerie, Julia Gelatt, and Ashley Podplesky, "Immmigrants' Eligibility for U.S. Public Benefits: A Primer," Migration Policy Institute, January 2024, Section 6.B, p. 23.

public benefits, including housing assistance programs, to "qualified aliens."[357]

- Each housing assistance program has its own eligibility criteria that may not directly align with these laws, leaving room for agency discretion.[358] For example, "mixed-status" families may receive prorated benefits,[359] while many grant-funded housing programs (e.g., the Community Development Block Grant program) are not conditioned on immigration status at all.[360]

- **State-Funded Programs:** Several states offer welfare benefit programs to certain immigrants who are ineligible for federal programs.
  - 6 states (California, Hawaii, Illinois, Maine, New Hampshire and Washington) provide cash assistance to certain immigrant seniors and immigrants with disabilities who are ineligible for SSI.[361]
  - 5 states (California, Illinois, Maine, Minnesota, and Washington) have food assistance programs available to immigrants who are ineligible for SNAP.[362]
  - 23 states have cash assistance programs available to certain qualified non-citizens who are ineligible for TANF (*see* **Figure 6.3**).[363] In some states, such as Minnesota, all lawfully residing immigrants meeting certain conditions are eligible; in others, such as Massachusetts, support is limited to specific groups (e.g., victims of domestic violence).[364]

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357 "Summary of Immigrant Eligibility Restrictions under Current Law," Assistant Secretary for Planning and Evaluation, February 24, 2009.

358 "Housing Choice Vouchers," Public Housing Authority, May 13, 2021.

359 "Mixed status" families are those with at least [1] member who has an eligible citizenship/immigration status, and at least [1] member with an ineligible status. Lacarte, Valerie, Julia Gelatt, and Ashley Podplesky, "Immmigrants' Eligibility for U.S. Public Benefits: A Primer," Migration Policy Institute, January 2024, Section 6.B, p. 23.

360 "Eligibility for Assistance Based on Immigration Status," National Low Income Housing Coalition, October 2023.

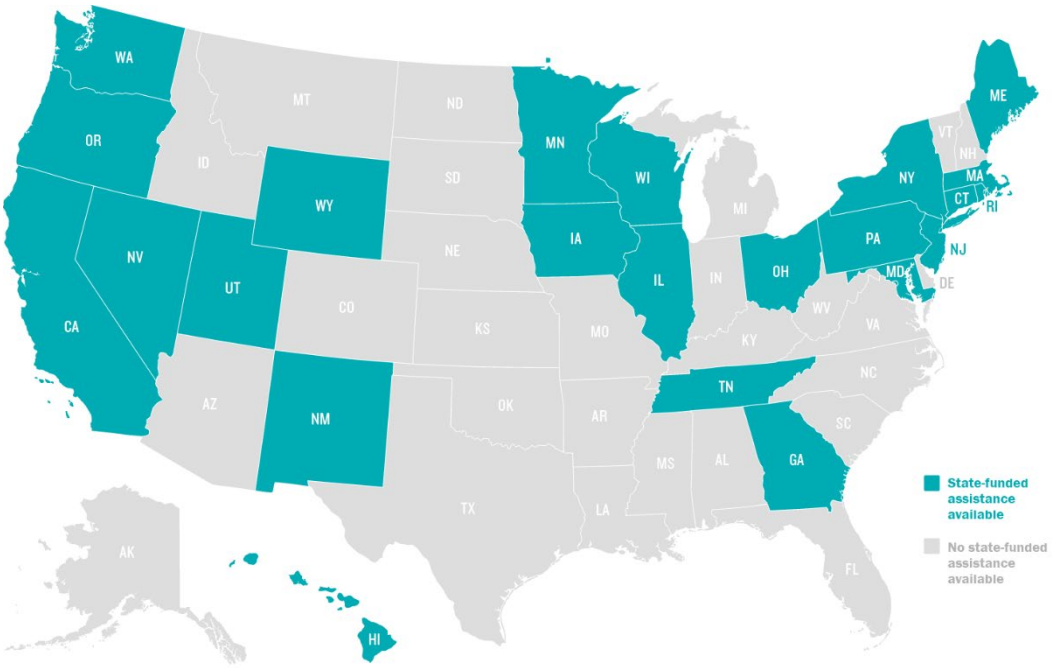
361 Broder, Tanya and Gabrielle Lessard, "Overview of Immigrant Eligibility for Federal Programs," National Immigration Law Center, May 2024, p. 10.

362 "Excerpt from Guide to Immigrant Eligibility for Federal Programs, Table 12: State-Funded Food Assistance Program," National Immigration Law Center, 2002.

363 "Excerpt from Guide to Immigrant Eligibility for Federal Programs, Table 8: State-Funded Tanf Replacement Program," National Immigration Law Center.

364 "Excerpt from Guide to Immigrant Eligibility for Federal Programs, Table 8: State-Funded Tanf Replacement Program," National Immigration Law Center.

Figure 6.3: Availability of State-Only Cash Assistance to Supplement TANF for Immigrants[365]



iii. Education

Public elementary and secondary education is generally available to children regardless of immigration status following the U.S. Supreme Court decision in *Plyler v. Doe*.[366] However, certain immigrants may be barred from participating in some financial assistance programs.

- **School Vouchers:** Undocumented immigrants may not be eligible to participate in school voucher programs.
  - Voucher programs generally allow parents to receive state funding to send their child to the school of their choice, including private or religious schools, using "all or some of [the money] the state would have otherwise spent to educate the child in a public school."[367]

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365 "Excerpt from Guide to Immigrant Eligibility for Federal Programs, Table 8: State-Funded Tanf Replacement Program," National Immigration Law Center. Note that this figure only illustrates the availability of state-funded cash assistance programs to supplement TANF, regardless of the scope of each program or the sub-population within the immigrant population who are actually eligible for each program.

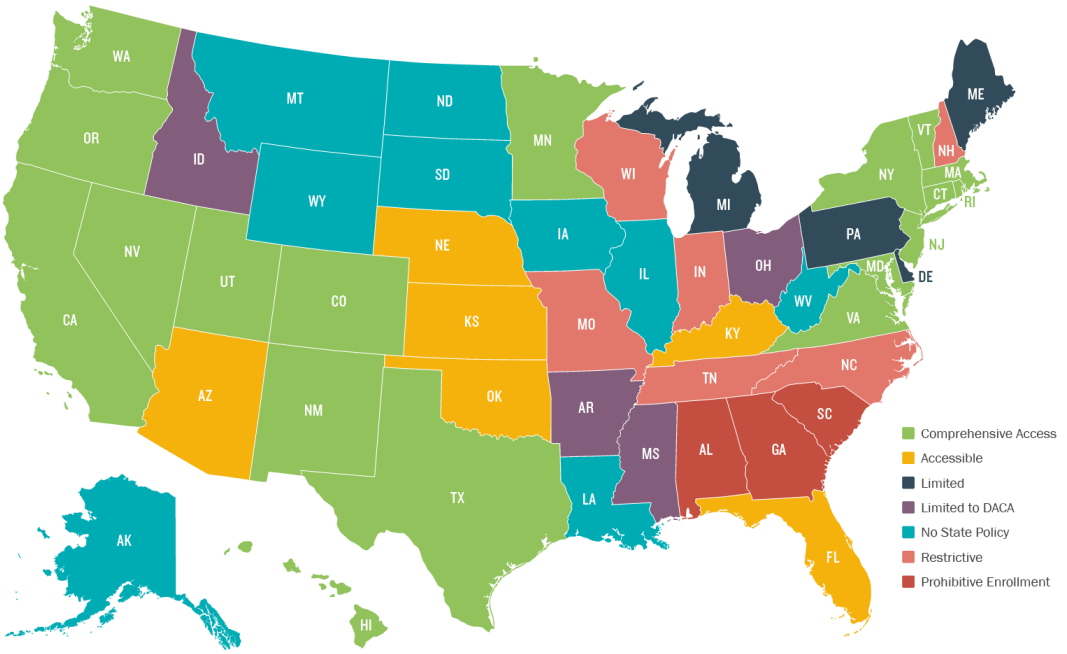
366 The U.S. Department of Education notes that, following the U.S. Supreme Court decision in *Plyler v. Doe*, "[a] State may not deny access to public education to any child residing in the State, including children who are not citizens and do not have immigration documentation." "Students, Immigration Status, and the Right to Public Education," U.S. Department of Education, July 20, 2021, *available at* https://blog.ed.gov/2021/07/students-immigration-status-and-the-right-to-public-education/, *accessed* August 19, 2024. *See also*, "Access to Education Rule of Law," United States Courts, *accessed* August 19, 2024.

367 Turner, Cory, "School Vouchers 101: What They Are, How They Work - and Do They Work?," NPR, December 7, 2016, *accessed* August 19, 2024.

- States may condition eligibility on immigration status, in addition to other factors such as income or disability. For instance, Indiana requires that household income be below a certain threshold[368] and that the "[s]tudent must have legal settlement in Indiana[.]"[369]

- **In-State Tuition:** Undocumented immigrants may also not be eligible for in-state tuition at public universities (*see* **Figure 6.4**).
  - 25 states and DC provide in-state tuition to undocumented students, and some "also provide access to state financial aid."[370]
  - Conversely, 9 states "actively block access to in-state tuition for undocumented students." 12 others either have no known policy or "provide access to in-state tuition only to DACA recipients."[371]

Figure 6.4: Availability of Financial Aid for Undocumented Immigrants[372]



368 In this case, the household cannot have an annual income "more than 400% of the amount to qualify for the federal free and reduced price lunch program." "Indiana Choice Scholarship Program," Indiana Department of Education, 2023.

369 "Indiana Choice Scholarship Program," Indiana Department of Education, 2023.

370 "Portal to the States," Higher ED Immigration Portal.

371 "Portal to the States," Higher ED Immigration Portal. Specifically, 5 states only provide in-state tuition access to DACA recipients, and 7 others do not have any known policies.

372 "Portal to the States," Higher ED Immigration Portal. Puerto Rico, which is excluded from this figure, does not have any known state policy regarding financial aid for undocumented immigrants.

iv. Legal and Advocacy Services

While many non-profit organizations provide legal and advocacy services to immigrants and their families,[373] government programs are also available to immigrants at the federal, state, and local levels.

- At the national level, the Department of Homeland Security's U.S. Citizenship and Immigration Services and the Department of Health and Human Services' Office of Refugee Resettlement provide guidance on the application processes for visas, Green Cards, and citizenship as well as support with regard to housing, education, and employment.[374, 375]
- At the state and local levels, certain states and cities offer advocacy programs for immigrants. For example, the Boston Mayor's Office for Immigrant Advancement provides free immigration consultations and works to educate immigrants on their legal rights.[376] Some other states, such as Illinois, provide grants to immigrant services organizations specifically to establish immigrant legal support programs.[377]

B. Immigrants' Utilization of Public Services and Government Benefits

As discussed above, non-citizen immigrants' access to public services and governmental assistance programs is generally limited compared to that of U.S. citizens and varies widely based on the eligibility criteria for each individual public assistance program. Despite evidence that immigrants face a range of enrollment barriers to these programs,[378] a 2022 National Public Radio (NPR) poll reports that more than 1 in every 3 American adults believe that "[i]mmigrants are more likely to use public assistance benefits than the U.S.-born population."[379]

The remainder of this section presents findings from empirical studies on the actual utilization of government services by immigrants in the United States as compared with the

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373 Some examples include Immigrant Legal Resource Center (ILRC) (https://www.ilrc.org/) and National Immigration Law Center (NILC) (https://www.nilc.org/).

374 *See, e.g.*, "U.S. Citizenship and Immigration Services Homepage," U.S. Citizenship and Immigration Services, *available at* https://www.uscis.gov, *accessed* August 19, 2024.

375 *See, e.g.*, "Homepage," Office of Refugee Resettlement, *available at* https://www.acf.hhs.gov/orr, *accessed* August 8, 2023.

376 *See, e.g.*, "Legal Resources for Immigrants," City of Boston, *available at* https://www.boston.gov/departments/immigrant-advancement/legal-resources-immigrants, *accessed* August 19, 2024.

377 "Immigrant Legal Support Program 25-444-3403-01," Illinois Department of Human Services, *available at* https://www.dhs.state.il.us/page.aspx?item=164903, *accessed* August 19, 2024

378 "Key Facts on Health Coverage of Immigrants," Kaiser Family Foundation, September 17, 2023, *available at* https://www.kff.org/racial-equity-and-health-policy/fact-sheet/key-facts-on-health-coverage-of-immigrants/, *accessed* August 19, 2024.

379 Rose, Joel, "A Majority of Americans See an 'Invasion' at the Southern Border, Npr Poll Finds," NPR, August 18, 2022, *accessed* August 19, 2024.

native-born U.S. population. To contextualize these findings on immigrants' utilization of government services, findings from studies on the fiscal contributions of immigrants are also presented. Studies comparing immigrants' public expenditures and tax contributions projected over their lifetime indicate that immigrants have a net positive fiscal impact on the U.S. economy. These studies, however, are still likely to underestimate the actual net contributions of immigrants, as they do not account for indirect contributions of immigrants to the U.S. economy (e.g., labor supply increases, productivity growth, contributing to innovation, and entrepreneurial activity).[380]

i. Immigrants, as Individuals, Receive Lower Levels of Public Benefits and Government Assistance than Native-Born Americans

Researchers have adopted 2 main approaches to comparing immigrants' utilization of government programs with that of the native-born U.S. population.

One approach compares the usage of all government programs at the household level, where a household is considered either an immigrant or native-born based on the nativity of the head of household (henceforth "the household approach").[381] Proponents of the household approach argue that the household is the primary unit through which public services are consumed and taxes are paid, and individual immigrants, even if they do not qualify, can access public benefits through other eligible members of their household.[382]

Studies using the household approach present mixed findings on whether immigrant-headed households have higher usage rates of public services and government programs compared to households headed by native-born Americans. However, some studies that consider the economic and demographic characteristics of the household find that immigrant-headed households do not receive higher public benefits compared to households headed by native-born Americans. For example:

- Bitler and Hoynes (2013), in a study on the cyclicality of the social safety net in the United States using data from the Current Population Survey (CPS), find that, between 1995 and 2010, among households with incomes below 200 percent of the federal poverty line, "those led by immigrants participated in some safety net programs at lower rates than did [households led by native-borns]." The authors

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380 Blau, Francine D. and Christopher Mackie, *The Economic and Fiscal Consequences of Immigration*, Washington, DC, National Academies of Sciences, Engineering, and Medicine, Chapter 7.1, p. 324.

381 *See, e.g.*, Camarota, Steven A. and Karen Zeigler, "Welfare Use by Immigrants and the U.S.-Born: Comparing Program Used by Foreign- and U.S.-Born-Headed Household," Center for Immigration Studies, December 19, 2023, *available at* https://cis.org/Report/Welfare-Use-Immigrants-and-USBorn, *accessed* August 19, 2024, Camarota, Steven A., "Welfare Use by Legal and Illegal Immigrant Households: An Analysis of Medicaid, Cash, Food and Housing Programs," Center for Immigration Studies, September 9, 2015, *available at* https://cis.org/Report/Welfare-Use-Legal-and-Illegal-Immigrant-Households, *accessed* August 19, 2024.

382 O'Shea, Tim and Christobal Ramon, "Immigrants and Public Benefits: What Does the Research Say?," Bipartisan Policy Center, November 2018, p. 7.

note that such patterns were "evident for [...] cash welfare, food stamps, and SSI."[383]

- Hing (1997) offers a summary of various analyses conducted by researchers at the Urban Institute, including an analysis to quantify the net cost of immigrants to the native-born U.S. population. The results show that the use of AFDC, SSI, and General Assistance programs "among the overall foreign-born population [was] marginally higher than the [native-born U.S.] population," using the 1990 census. However, when "account[ing] for social and economic characteristics, immigrant households [were] no more likely to receive public assistance than [native-born U.S.] households."[384]

The other approach, by contrast, compares the usage of government programs at the individual level (henceforth "the individual approach"). Unlike the household approach, the individual approach factors the unit of assistance of the particular public service or benefit of interest when analyzing the utilization of benefits at the individual level. For example, public benefit programs such as Medicaid, CHIP, and SSI provide benefits to individuals rather than entire households. The individual approach, therefore, analyzes the utilization of these public benefit programs by each individual rather than by each household. Proponents of the individual approach emphasize that it has the advantage of not assigning the immigration status of the head of the household and any use of public benefits by household members to every household member.[385]

Studies using the individual approach find that immigrants generally use public benefits at lower rates and levels than native-born Americans. That is, they find that immigrants are less likely to benefit from public services, and when they do, they tend to consume a lower dollar amount of benefits compared to native-born Americans. For example:

- Ku and Bruen (2013) use CPS data to compare the benefits usage of immigrants to that of the native-born U.S. population at low-income levels and find that "[l]ow-income immigrants use public benefits like Medicaid or the Supplemental

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383 Blau, Francine D. and Christopher Mackie, *The Economic and Fiscal Consequences of Immigration*, Washington, DC, National Academies of Sciences, Engineering, and Medicine, p. 124; Bitler, Marianne P. and Hilary W. Hoynes, "Immigrants, Welfare Reform, and the U.S. Safety Net," *Immigration, Poverty, and Socioeconomic Inequality*, edited by Card, David and Steven Raphael, New York, Russel Sage Foundation.

384 Hing, Bill Ong, *To Be an American: Cultural Pluralism and the Rhetoric of Assimilation*, New York and London, New York University Press, p. 98; Fix, Michael, Jeffrey S. Passel, Maria E. Enchautegui, and Wendy Zimmermann, "Immigration and Immigrants," The Urban Institute, May 1994, pp. 36–37; pp. 63–67.

385 *See,* e.g., Nowrasteh, Alex and Michael Howard, "Immigrant and Native Consumption of Means-Tested Welfare and Entitlement Benefits in 2020," CATO Institute, January 31, 2023, *available at* https://www.cato.org/briefing-paper/immigrant-native-consumption-means-tested-welfare-entitlement-benefits-2020, *accessed* August 19, 2024. Note that data available for these studies typically do not allow researchers to divide benefits between individuals who are either eligible or ineligible for programs where the household is the unit of assistance. Therefore, in these instances, the authors typically assume that the benefits are equally split among all household members.

Nutrition Assistance Program (SNAP, formerly the Food Stamp Program) at a lower rate than low-income native-born citizens."[386]

- Nowrasteh and Orr (2018) use CPS data to compare the usage rate of means-tested welfare and entitlement programs between immigrants and the native-born U.S. population. They find that "[i]mmigrants who meet the eligibility thresholds of age for the entitlement programs or poverty for the means-tested welfare programs generally have lower use rates and consume a lower dollar value relative to native-born Americans."[387]
- Howard and Nowrasteh (2023) use data from the Survey of Income and Program Participation (SIPP) to compare welfare and entitlement use by immigrants to that by the native-born U.S. population. They show that "immigrants consumed 27 percent less welfare and entitlement benefits than native-born Americans on a per capita basis in 2020. […] From 2016 to 2020, the underconsumption of welfare by immigrants relative to native-born Americans widened by about 6 percentage points."[388]
- Flavin et al. (2018) show that, based on a systematic review of peer-reviewed academic literature between 2000 and 2017, "[p]er capita public expenditures were lower for immigrants overall, particularly for the undocumented."[389]

ii. Immigrants Support Public Services and Government Benefits Through Various Tax Payments

Immigrants are required to support federal, state, and local government operations by paying various taxes, such as federal tax payments for Social Security and Medicare.[390, 391]

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386 Ku, Leighton and Brian Bruen, "Poor Immigrants Use Public Benefits at a Lower Rate Than Poor Native-Born Citizens," CATO Institute, March 4, 2013, p. 1.

387 Nowrasteh, Alex and Robert Orr, "Immigration and the Welfare State: Immigrant and Native Use Rates and Benefit Levels for Means Tested Welfare and Entitlement Programs," May 10, 2018, pp. 1-2 ("The average value of welfare benefits per immigrant was about $3,718 in 2016, about 39 percent less than the $6,081 average value of welfare benefits per [native-born American].").

388 Nowrasteh, Alex and Michael Howard, "Immigrant and Native Consumption of Means-Tested Welfare and Entitlement Benefits in 2020," CATO Institute, January 31, 2023, *available at* https://www.cato.org/briefing-paper/immigrant-native-consumption-means-tested-welfare-entitlement-benefits-2020, *accessed* August 19, 2024.

389 Flavin, Lila, Leah Zallman, Danny McCormick, and J. Wesley Boyd, "Medical Expenditures on and by Immigrant Populations in the United States: A Systematic Review," International Journal of Health Services, 2018, Vol. 0, No. 0, pp. 1-21, p. 15.

390 "Introduction to Residency under U.S. Tax Law," Internal Revenue Service, *available at* https://www.irs.gov/individuals/international-taxpayers/introduction-to-residency-under-us-tax-law, *accessed* August 19, 2024 ("[T]he controlling principle is that U.S. residents are taxed in the same manner as U.S. citizens on their worldwide income, and nonresidents (with certain narrowly defined exceptions) are subject to federal income tax only on income derived from sources within the United States and/or income that is effectively connected with a U.S. trade or business.").

391 A U.S. resident for tax purposes is a non-citizen that meets either the Green Card test or the substantial presence test for the calendar year, and a non-resident alien is a non-citizen who does not pass these 2 tests. An individual is considered to pass the Green Card test if such individual is a "lawful permanent resident of the U.S. at any time during the calendar year." An individual is considered to pass the substantial presence test if they are physically present in the U.S. on at least "31 days during the calendar year and 183 days during the 3-year period that includes

- The IRS requires that documented immigrants, regardless of their tenure in the United States, face the same tax requirements for U.S. income and assets as the native-born U.S. population.[392]
- The IRS also requires that undocumented immigrants pay federal, state, and local taxes. While undocumented immigrants are not eligible for Social Security numbers (SSNs), working undocumented immigrants are required to comply with federal tax reporting through individual taxpayer identification numbers (ITINs).[393, 394]

As such, immigrants make significant tax contributions to the United States. For example:

- Kosten (2018), based on a review of both government and independent research into the tax contributions of immigrants at both the federal and local levels, finds that, "[in] 2014, immigrants paid $328 billion in state, local, and federal taxes and accounted for more than a quarter of all taxes in California and nearly a quarter of all taxes in New York and New Jersey."[395]
- Gee et al. (2017) conduct an analysis of American Community Survey (ACS) and SIPP data to estimate the effects of undocumented immigrants on local, state, and federal tax intake. They show that, in 2014, undocumented immigrants paid $11.7 billion in state and local taxes, which on average constituted 8 percent of their incomes. In contrast, the top 1 percent of taxpayers by income paid an average effective state and local tax rate of 5.4 percent.[396]

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the current year and the two years immediately before that […]." "U.S. Tax Residency - Green Card Test," Internal Revenue Service, *available at* https://www.irs.gov/taxtopics/tc851, *accessed* August 19, 2024; "Substantial Presence Test," Internal Revenue Service.

392 In addition, documented immigrants who have spent a substantial amount of time in the United States are required to pay taxes on their foreign income. "Topic No. 851, Resident and Nonresident Aliense," Internal Revenue Service, *available at* https://www.irs.gov/taxtopics/tc851, *accessed* August 19, 2024 ("If you're a nonresident alien who is engaged in a trade or business in the United States, you must file a return and report all of your income from U.S. sources, both from the trade or business and any U.S. source non-effectively connected income for which amounts have been withheld. […] Resident aliens must follow the same tax laws as U.S. citizens. If you're a resident alien, you must report your worldwide income from all sources, that is, income from both within and outside the United States.")

393 "Individual Taxpayer Indentification Number," Internal Revenue Service, *available at* https://www.irs.gov/individuals/individual-taxpayer-identification-number, *accessed* August 19, 2024, ("An Individual Taxpayer Identification Number (ITIN) is a tax processing number issued by the Internal Revenue Service. The IRS issues ITINs to individuals who are required to have a U.S. taxpayer identification number but who do not have, and are not eligible to obtain, a Social Security number (SSN) from the Social Security Administration (SSA).").

394 According to the Treasury Inspector General for Tax Administration, there were more than 5.8 million active ITINs in 2022. "Administration of the Individual Taxpayer Indentification Number Program," Treasury Inspector General for Tax Administration, December 19, 2023, p. 1.

395 Kosten, Dan, "Immigrants as Economic Contributors: Immigrant Tax Contributions and Spending Power," Immigration Forum, September 6, 2018, *available at* https://immigrationforum.org/article/immigrants-as-economic-contributors-immigrant-tax-contributions-and-spending-power/, *accessed* September 2, 2024.

396 "Undocumented Immigrants' State & Local Tax Contributions," Institute on Taxation and Economic Policy, March 1, 2017, *available at* https://itep.org/undocumented-immigrants-state-local-tax-contributions-2017/, *accessed* August 19, 2024 ("Undocumented immigrants contribute significantly to state and local taxes, collectively paying an estimated $11.74 billion a year. […] Undocumented immigrants nationwide pay on average an estimated 8 percent of their incomes in state and local taxes (this is their effective state and local tax rate). To put this in perspective, the top 1 percent of taxpayers pay an average nationwide effective tax rate of just 5.4 percent.").

- Hubbard (2024) analyzes ACS data to estimate immigrant contributions to federal and state taxes. The findings show that, by 2022, immigrant households contributed over $579 billion in state, local, and federal taxes, of which $383 billion were paid in federal taxes annually, accounting for approximately 15 percent of total income tax contributions in 2022.[397,398] The author also notes that undocumented immigrant-headed households, specifically, paid $21.5 billion in federal taxes and $13.6 billion in state and local taxes, despite not qualifying for many government benefits.[399]

iii. Immigrants Have a Net Positive Fiscal Impact Over Their Lifetime

Researchers have used 2 different accounting approaches to estimate the fiscal impacts of immigrants: static and dynamic. The static accounting approach analyzes immigrants' public expenditures and tax contributions within a specific time frame. In contrast, the dynamic accounting approach compounds governmental costs and benefits over extended time periods, computing the net present value of tax contributions and government expenditures attributable to immigrants—and, in some analyses, their descendants—projected over their lifetime.[400]

Studies using the static accounting approach have arrived at different conclusions regarding immigrants' net fiscal impact, depending on the particular taxes, benefit programs, and types of immigrants considered. For example:

- Ghertner et al. (2024) use a Transfer Income Model and CPS data to analyze the net fiscal impact of asylees and refugees on federal, state, and local governments. They show that, between 2005 and 2019, refugees, asylees, and their immediate families provided a net fiscal benefit of $16 billion over the 15-year period, with a net benefit of $37.5 billion to the federal government and a net cost of $21.4 billion to state and local governments.[401]

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397 Hubbard, Steven, "Immigrants Contribute Billions to Federal and State Taxes Each Year," Immigration Impact, April 15, 2024, *accessed* August 19, 2024 ("Our analysis of the 2022 American Community Survey (ACS) found that immigrants in the United States have a combined household income of $2.1 trillion and contribute $382.9 billion to federal taxes and $196.3 billion in state and local taxes, leaving them with $1.6 trillion in spending power.").

398 "Revenues in Fiscal Year 2022: An Inforgraphic," Congressional Budget Office, March 28, 2023, *available at* https://www.cbo.gov/publication/58891, *accessed* August 19, 2024. The report notes that $2.6 trillion of revenue received by the federal government came from individual income taxes in 2022. $383 billion is approximately 15 percent of $2.6 trillion. In 2022, immigrants accounted for approximately 14 percent of the total U.S. population. *See also*, Azari, Shabnam Shenasi, Virginia Jenkins, Joyce Hahn, and Lauren Medina, "The Foreign-Born Population in the United States: 2022," U.S. Census Bureau, August 8, 2024, *accessed* August 19, 2024.

399 Hubbard, Steven, "Immigrants Contribute Billions to Federal and State Taxes Each Year," Immigration Impact, April 15, 2024, *accessed* August 19, 2024 ("In 2022, undocumented immigrants had a combined household income of $290.0 billion and paid $21.5 billion in federal taxes and $13.6 billion in state and local taxes. Their combined spending power was $254.8 billion. Despite their substantial contributions, many do not qualify for the benefits their taxes support, such as social security and Medicare benefits or the Earned Income Tax Credit.").

400 Blau, Francine D. and Christopher Mackie, *The Economic and Fiscal Consequences of Immigration*, Washington, DC, National Academies of Sciences, Engineering, and Medicine, Chapter 7.3.

401 Ghertner, Robin, Suzanne Macartney, and Meredith Dost, "The Fiscal Impact of Refugees and Asylees at the Federal, State, and Local Levels from 2005 to 2019," U.S. Department of Health and Human Services, Ferbuary 2024, p. 4.

- The same study also finds that individual refugees and asylees provided a net fiscal benefit of $123.8 billion over the same 15-year period, with a net benefit of $31.5 billion to the federal government and a net benefit of $92.3 billion to state and local governments.[402]
- Zallman et al. (2015), using CPS data to estimate the fiscal effect of undocumented immigrants on the Medicare system in the United States, show that, between 2000 and 2011, undocumented immigrants contributed a surplus of $2.2 to $3.8 billion annually to the Medicare Trust Fund, which funds Medicare Part A.[403]
- Blau and Donehower (2017) study the net fiscal impacts of immigrants in comparison with the second generation and native-born U.S. population, focusing on how age influences the fiscal impacts of each group. They find that most immigrants are of working age and, therefore, pay more in taxes than they receive in public benefits (i.e., they are on average "net taxpayers" rather than "net tax receivers"). The working-age children of immigrants are the highest net taxpayers, paying more in taxes and receiving less in benefits when compared to their immigrant parents and those with native-born American parents.[404]

Studies using the dynamic approach find that immigrants in the United States generally have a net positive fiscal impact. The dynamic accounting approach, while methodologically complex, provides a projection of the fiscal impacts of immigration over immigrants' lifetimes.[405] For example:

- Chassamboulli and Liu (2024) use a dynamic general equilibrium model to examine the fiscal impacts of legal and undocumented immigration and find that legal immigrants have a positive direct fiscal impact on the U.S. economy, noting that "legal immigrants improve the fiscal balance and decrease the tax burden on [native-born Americans], because their direct tax contributions greatly exceed the transfers they receive."[406] Even though the authors impose "the worst-case estimate for [undocumented immigrants'] overall tax contributions" and assume that undocumented immigrants do not pay any income taxes, the study still finds

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402 Ghertner, Robin, Suzanne Macartney, and Meredith Dost, "The Fiscal Impact of Refugees and Asylees at the Federal, State, and Local Levels from 2005 to 2019," U.S. Department of Health and Human Services, Ferbuary 2024, p. 4.

403 Zallman, Leah et al., "Unauthorized Immigrants Prolong the Life of Medicare's Trust Fund," Journal of General Internal Medicine, January 2016, Vol. 31, No. 1, pp. 122-127, p. 122.

404 Blau, Francine D. and Gretchen Donebower, "Do Immigrants Cost Native-Born Taxpayers Money?," The EconoFact Network, *available at* https://econofact.org/do-immigrants-cost-native-born-taxpayers-money, *accessed* August 19, 2024 ("People in working ages are net taxpayers. […] The working-age children of immigrants (the 2nd generation) […] are the highest net taxpayers of all.").

405 For example, the dynamic approach allows researchers to capture net expenditures for younger individuals on education, net revenues for working-age individuals, and net expenditures for older individuals on healthcare. Blau, Francine D. and Christopher Mackie, *The Economic and Fiscal Consequences of Immigration*, Washington, DC, National Academies of Sciences, Engineering, and Medicine, pp. 336-7.

406 Chassamboulli, Andri and Xiangbo Liu, "Immigration, Legal Status and Fiscal Impact," Review of Economic Dynamic, 2024, Vol. 54, No. 101238, p. 16.

that undocumented immigrants have a "positive welfare impact [that] stems mainly from their positive effect on job creation."[407]

- Evans and Fitzgerald (2017) use ACS data for the period 2010–2014 to estimate that refugees entering the United States between ages 18 and 45 "pay on average $21,000 more in taxes to all levels of government than they receive in benefits over a 20 year period."[408]
- The National Academies of Science, Engineering and Medicine (2017) calculate the dynamic net fiscal impact associated with an immigrant's arrival over a 75-year period. The study concludes that "the total fiscal impact of a new immigrant who most resembles recent immigrants in terms of average age and education creates a positive fiscal balance flow to all levels of government with an NPV [net present value] of $259,000."[409]

The direct fiscal impact of immigrants does not account for the various channels through which immigrants contribute to the U.S. economy indirectly. For example, the National Academies of Sciences, Engineering, and Medicine note:

- "Revenues generated from [native-born Americans] who have benefited from economic growth and job creation attributable to immigrant innovators or entrepreneurs would also have to be included in a comprehensive evaluation [of net fiscal impact], as would indirect impacts on property, sales, and other taxes and on per capita costs of the provision of public goods."[410, 411]
- "[A] good case can be made for treating [costs associated with educating the children of immigrants] as an investment, due to [...] eventual contributions to tax revenues."[412]

As such, studies focusing solely on immigrants' tax payments do not fully capture the extent of immigrants' net fiscal contributions to the U.S. economy.

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407 Chassamboulli, Andri and Xiangbo Liu, "Immigration, Legal Status and Fiscal Impact," Review of Economic Dynamic, 2024, Vol. 54, No. 101238, pp. 2, 14.

408 Evans, William H. and Daniel Fizgerald, "The Economic and Social Outcomes of Regufees in the United States: Evidence from the ACS," NBER Working Paper Series, June 2017, No. 23498, p. 7.

409 Blau, Francine D. and Christopher Mackie, *The Economic and Fiscal Consequences of Immigration*, Washington, DC, National Academies of Sciences, Engineering, and Medicine, Chapter 8.3, p. 434.

410 Blau, Francine D. and Christopher Mackie, *The Economic and Fiscal Consequences of Immigration*, Washington, DC, National Academies of Sciences, Engineering, and Medicine, Chapter 7.1, p. 324.

411 *See* earlier sections for a discussion of non-fiscal or non-contemporaneous impacts of immigrants on the U.S. economy that, in turn, indirectly contribute to public services and government benefits. For example, Sections I and III discuss immigrants in the technology or healthcare industry, and Sections I—II describe immigrants who contribute to job creation or innovation.

412 Blau, Francine D. and Christopher Mackie, *The Economic and Fiscal Consequences of Immigration*, Washington, DC, National Academies of Sciences, Engineering, and Medicine, Chapter 7.6, p. 357.

VII. Impact of Visa Restrictions on the U.S. Economy

KEY TAKEAWAYS

- Student and temporary work visas are important pipelines for bringing international talent to the United States.
- The number of U.S. temporary employment-based visas that can be issued annually is subject to caps, and these caps have not changed since the early 2000s. These static caps on temporary employment-based visas have the effect of restricting high-skilled labor flows into the United States despite the growing demand for these skills by U.S. firms, especially in the technology sector. Findings from economic research show that such restrictions on high-skilled labor flows can lower native workers' productivity and wages, reduce innovation, and decrease U.S. competitiveness in the global economy.
- Flows of low-wage workers into the United States also benefit the U.S. economy. Studies suggest that restrictions on low-wage labor flows can negatively affect firms' revenues and investments, discourage job creation, and depress U.S. labor force growth—a key driver of economic growth. In addition, economic research shows that low-wage labor flows have little to no impact on wages and employment levels of the native-born U.S. population.
- The Trump administration's stance toward refugees represented a break from the longstanding U.S. tradition of openness to those unable or unwilling to return home because of fear of serious harm. Compared to non-refugee immigrants, refugees are more likely to be employed and to start their own businesses and less likely to crowd out jobs that are likely to be filled by new immigrants, such as construction, food industry, and private household jobs.
- Visa restrictions limit not only the inflow of workers in the short term, but also the number of people eligible to become lawful permanent residents (LPRs) and naturalized citizens. Restriction of nonimmigrant visas reduces the pipeline of such workers, with potential negative impact on the long-term growth of the U.S. economy.

A. An Overview of U.S. Visas and Current Restrictions

- Most foreign-born workers[413] come to the United States on temporary work visas, which authorize the visa holders to work only for a pre-defined period. As such, they are also commonly referred to as "nonimmigrant visas," reflecting the temporary nature of the work authorization, and holders of these visas are referred to as "temporary workers."[414] The main U.S. visas that are available to temporary workers are summarized in **Table 7.1** below.
- Temporary workers typically hold H (specialty occupation, temporary, or seasonal workers) or L (international intracompany transferee) visas.[415] Over the past decade, an increasing number of temporary workers, especially in fields related to science, technology, engineering, and mathematics (STEM), have worked on F-1 (student) visas, which allow them to participate in Optional Practical Training (OPT), a program that allows students to work for up to 36 months after completing their degree.[416] Temporary workers can also work on a J (exchange visitor) visa if they are participating in an approved exchange visitor program such as the Fullbright program.[417]
- On June 22, 2020, then-President Trump issued an Executive Order suspending the entry of H-1B (special occupation),[418] H-2B (temporary non-agricultural workers and seasonal workers),[419] J (cultural and educational exchange visitors),[420] and L (multinational intracompany transferees)[421] visas until the end

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413 The Bureau of Labor Statistics defines the foreign-born as "persons residing in the United States who were not U.S. citizens at birth," which includes "legally-admitted immigrants, refugees, temporary residents such as students and temporary workers, and undocumented immigrants." "Foreign-Born Workers: Labor Force Characteristics – 2022," U.S. Bureau of Labor Statistics, May 18, 2023, p. 6.

414 *See, e.g.*, "Temporary (Nonimmigrant) Workers," U.S. Citizenship and Immigration Services, *available at* https://www.uscis.gov/working-in-the-united-states/temporary-nonimmigrant-workers, *accessed* August 19, 2024.

415 Wilson, Jill H., "Immigration: Nonimmigrant (Temporary) Admissions to the United States," Congressional Research Service, September 10, 2019, pp. 7-9.

416 Wilson, Jill H., "Optional Practical Training (OPT) for Foreign Students in the United States," Congressional Research Service, April 9, 2024, p. 1.

417 Wilson, Jill H., "Immigration: Nonimmigrant (Temporary) Admissions to the United States," Congressional Research Service, September 10, 2019, p. 9 ("The J visa is used by professors and research scholars, students, foreign medical graduates, teachers, resort workers, camp counselors, au pairs, and others who are participating in an approved exchange visitor program (e.g., the Fulbright Program).").

418 "H-1B Specialty Occupations," U.S. Citizenship and Immigration Services, *available at* https://www.uscis.gov/working-in-the-united-states/h-1b-specialty-occupations, *accessed* August 23, 2024.

419 "H-2B Temporary Non-Agricultural Workers," U.S. Citizenship and Immigration Services, *available at* https://www.uscis.gov/working-in-the-united-states/temporary-workers/h-2b-temporary-non-agricultural-workers, *accessed* July 22, 2024.

420 "Exchange Visitor Visa," Depsrtment of State, *available at* https://travel.state/gov/content/travel/en/us-visas/study/exchange.html, *accessed* August 23, 2024; "Exchange Vistors," U.S. Citizenship and Immigration Services, *available at* https://www.uscis.gov/working-in-the-united-states/students-and-exchange-visitors/exchange-visitors, *accessed* July 22, 2024.

421 "L-1A Intracompany Transferee Executive or Manager," U.S. Citizenship and Immigration Services, *available at* https://www.uscis.gov/working-in-the-united-states/temporary-workers/l-1a-intracompany-transferee-executive-or-manager, *accessed* July 22, 2024; "L-1B Intracompany Transferee Specialized Knowledge," U.S. Citizenship and Immigration Services, *available at* https://www.uscis.gov/working-in-the-united-states/temporary-workers/l-1b-intracompany-transferee-specialized-knowledge, *accessed* July 22, 2024.

of the year.[422] The announcement of the Executive Order caused the valuation of Fortune 500 companies to drop by nearly 0.5 percent, equivalent to a valuation loss of over $100 billion,[423] suggesting that the financial markets viewed the impact of such restrictions on temporary employment-based visas on U.S. companies negatively.

- The Trump administration completed over 400 additional executive actions affecting U.S. immigration policy, including those requiring more extensive information on visa applications and significantly limiting asylum at the border, lengthening the time for asylum seekers to obtain work permits, imposing travel bans, and denying asylum on health-related ground by invoking Title 42 (a public health provision), some of which were reversed under the Biden administration.[424]

Table 7.1: Summary of U.S. Temporary Work Visas

Visa	Yearly Cap	No. of Visas Issued (2018–2022) [1], [6]	Other Key Features/Restrictions
H-1B (Specialty Occupations)	65,000 + additional 20,000 for post-baccalaureate degrees[6]	2022: 206,002 2021: 61,569 2020: 124,983 2019: 188,123 2018: 179,660	• The number of H-1B visas per year can exceed the cap because certain employers, such as universities, nonprofits, and government research organizations, are exempt from the cap. [4] H-1B workers renewing their visa are also exempt. [6] • H-1B workers may be admitted for 3 years and extended another 3 years, for a total of 6 years.[2] • 20,000 petitions filed on behalf of beneficiaries with a post-baccalaureate degree from a U.S. institution of higher education are exempt from the 65,000 cap.[6],[12] • When the petitioners for H-1B visas exceed the available slots, a lottery system is used to randomly select petitions for processing.[13]

422 "Presidential Proclamation Suspending Entry of Individuals Who Present a Risk to the U.S. Labor Market Following the Coronavirus Outbreak," American Immigration Lawyers Association, June 29, 2020, *available at* https://www.aila.org/library/presidential-proclamation-suspending-entry, *accessed* August 19, 2024.

423 Bahar, Dany, Prithwiraj Choudhury, and Britta Glennon, "An Executive Order Worth $100: The Impact of an Immigration Ban's Announcement on Fortune 500 Firms Valuation," Global Economy and Development at Brookings, October 2020, p. 1; Bahar, Dany, Prithwiraj Choudhury, and Britta Glennon, "Research: The Cost of a Single U.S. Immigration Restriction," Harvard Business Review, January 22, 2021, Vol. Business and Society.

424 Bolter, Jessica, Emma Israel, and Sarah Pierce, "Four Years of Profound Change: Immigration Policy During the Trump Presidency," Migration Policy Institute, February 2022, pp. 1, 11, 16; Roy, Diana, Claire Klobucista, and Amelia Cheatham, "The U.S. Immigration Debate," Council on Foreign Relations, August 17, 2024, *available at* https://www.cfr.org/backgrounder/us-immigration-debate-0#chapter-title-0-6, *accessed* August 19, 2024, Chapters 6-8.

H-2A (Seasonal/ Temporary Workers)	No cap[6]	2022: 298,336 2021: 257,898 2020: 213,394 2019: 204,801 2018: 196,409	• H-2A visas are only given to nationals of countries that the secretary of homeland security has designated. The list currently includes 87 countries.[11] • The maximum period of stay with a H-2A visa is 3 years.[11] • No cap on H-2 visas.[6]
H-2B (Seasonal/ Temporary Workers)	66,000[6]	2022: 124,644 2021: 95,053 2020: 61,865 2019: 97,623 2018: 83,774	• "Currently, Congress has set the H-2B cap at 66,000 per fiscal year, with 33,000 for workers who begin employment in the first half of the fiscal year (October 1 - March 31) and 33,000 for workers who begin employment in the second half of the fiscal year (April 1 - September 30)."[10] • Certain categories of workers are exempt, including: current H-2B workers renewing their visa; H-2B workers previously counted toward the cap in the same fiscal year; certain workers in the fisheries industry; and H-2B workers in certain U.S. territories.[14] • Additionally, Congress authorized the Department of Homeland Security beginning in 2017 to make additional H-2B visas available if it determines that the cap cannot satisfy the needs of American businesses.[15] • The maximum period of stay is 3 years.[7] • There is a lottery system for H-2B visas.[18]
L-1A/L-1B (Intra-Company Transfers)	No cap[6]	2022: 72,958 2021: 24,863 2020: 35,942 2019: 76,988 2018: 74,388	• No cap on L-1A or L-1B visas.[6] • "Qualified employees entering the United States to establish a new office will be allowed a maximum initial stay of one year. All other qualified employees will be allowed a maximum initial stay of three years. For all L-1A employees, requests for extension of stay may be granted in increments of up to an additional two years, until the employee has reached the maximum limit of seven years."[7] • "Qualified employees entering the United States to establish a new office will be allowed a maximum initial stay of one year. All other qualified employees will be allowed a maximum initial stay of three years. For all L-1B employees, requests for extension of stay may be granted in increments of up to an additional two years, until the employee has reached the maximum limit of five years."[9]
F-1 (Students)	No cap[6]	2022: 411,131 2021: 357,839 2020: 111,387 2019: 364,204	• No set cap on F-1 visas.[6] • "[N]onimmigrant student's 'duration of status' as the time during which an F-1 nonimmigrant is 'pursuing a full course

		2018: 362,929	of study' at the approved educational institution."[16]
J-1 (Exchange Visitors)	No cap[6]	2022: 284,486 2021: 129,662 2020: 108,510 2019: 353,279 2018: 342,639	• No cap on J-1 visas.[5], [6] • "J-1 exchange visitors are initially admitted for duration of status. Duration of status is defined as completion of the J-1 program plus 30 days."[17]

Sources:

[1] U.S. Department of State, Nonimmigrant Visa Issued by Classification (Including Border Crossing Cards) Fiscal Years 2018-2022, Table XV(B), 2022.
[2] U.S. Department of Homeland Security, Characteristics of H-1B Specialty Occupation Workers, March 13, 2023, *available at* https://www.uscis.gov/sites/default/files/document/data/OLA_Signed_H-1B_Characteristics_Congressional_Report_FY2022.pdf.
[3] Center for Global Development, H-2A Program for Temporary Agricultural Workers, *available at* https://www.cgdev.org/sites/default/files/archive/doc/migration/H-2A_Fact_Sheet8.6.pdf.
[4] U.S. Department of Homeland Security, F-1 Cap Gap Extension, March 29, 2021, *available at* https://studyinthestates.dhs.gov/sevis-help-hub/student-records/fm-status/f-1-cap-gap-extension, *accessed* July 22, 2024.
[5] American Immigration Council, The Exchange Visitor Program and J-1 Visas, June 18, 2020, *available at* https://www.americanimmigrationcouncil.org/research/exchange-visitor-program-and-j-1-visas, *accessed* July 22, 2024.
[6] Congressional Research Service, Nonimmigrant and Immigrant Visa Categories: Data Brief, October 18, 2023, *available at* https://crsreports.congress.gov/product/pdf/R/R45938.
[7] U.S. Citizenship and Immigration Services, L-1A Intracompany Transferee Executive or Manager, *available at* https://www.uscis.gov/working-in-the-united-states/temporary-workers/l-1a-intracompany-transferee-executive-or-manager, *accessed* July 22, 2024.
[8] U.S. Citizenship and Immigration Services, Exchange Vistors, *available at* https://www.uscis.gov/working-in-the-united-states/students-and-exchange-visitors/exchange-visitors, *accessed* July 22, 2024.
[9] U.S. Citizenship and Immigration Services, L-1B Intracompany Transferee Specialized Knowledge, *available at* https://www.uscis.gov/working-in-the-united-states/temporary-workers/l-1b-intracompany-transferee-specialized-knowledge, *accessed* July 22, 2024.
[10] U.S. Citizenship and Immigration Services, H-2B Temporary Non-Agricultural Workers, *available at* https://www.uscis.gov/working-in-the-united-states/temporary-workers/h-2b-temporary-non-agricultural-workers, *accessed* July 22, 2024.
[11] U.S. Citizenship and Immigration Services, H-2A Temporary Agricultural Workers, *available at* https://www.uscis.gov/working-in-the-united-states/temporary-workers/h-2a-temporary-agricultural-workers, *accessed* July 22, 2024.
[12] U.S. Citizenship and Immigration Services, H-1B Cap Season, *available at* https://www.uscis.gov/working-in-the-united-states/temporary-workers/h-1b-specialty-occupations-and-fashion-models/h-1b-cap-season, *accessed* July 22, 2024.
[13] Tech and Outsourcing Companies Continue to Exploit the H-1B Visa Program at a Time of Mass Layoffs, April 22, 2023, *available at* https://www.epi.org/blog/tech-and-outsourcing-companies-continue-to-exploit-the-h-1b-visa-program-at-a-time-of-mass-layoffs-the-top-30-h-1b-employers-hired-34000-new-h-1b-workers-in-2022-and-laid-off-at-least-85000-workers/, *accessed* September 5, 2024.
[14] Economic Policy Institute, As the H-2B Visa Program Grows, the Need for Reforms That Protect Workers Is Greater Than Everemployers Stole $1.8 Billion from Workers in the Industries That Employed Most H-2B Workers over the Past Two Decades, *available at* https://www.epi.org/publication/h-2b-industries-and-wage-theft/, *accessed* July 29, 2024.
[15] Congressional Research Service, The H-2B Visa and the Statutory Cap, July 13, 2022.
[16] U.S. Citizenship and Immigration Services, Chapter 8 - Change of Status, Extension of Stay, and Length of Stay, *available at* https://www.uscis.gov/policy-manual/volume-2-part-f-chapter-8, *accessed* September 16, 2024.
[17] U.S. Citizenship and Immigration Services, Terms and Conditions of J Exchange Visitor Status, *available at* https://www.uscis.gov/policy-manual/volume-2-part-d-chapter-3, *accessed* August 22, 2024.
[18] Federal Register, Selection Procedures for Reviewing Applications Filed by Employers Seeking Temporary Employment of H-2B Foreign Workers in the United States, March 4, 2019, *available at* https://www.federalregister.gov/documents/2019/03/04/2019-03809/selection-procedures-for-reviewing-applications-filed-by-employers-seeking-temporary-employment-of, *accessed* August 22, 2024.

B. Impacts of Visa Restrictions on the Supply of Skilled Labor to the United States

i. H-1B Visas Are the Primary Legal Pathway for the Employment of Highly Skilled Foreign-Born Workers in the United States

- Established by the Immigration Act of 1990, the H-1B program is "the nation's biggest visa program for temporary employment of foreign-born workers who have specialized knowledge and a bachelor's degree or higher."[425] H-1B temporary visas are important because they represent the primary legal pathway for a high-skilled foreign national to work in the United States and have an opportunity to become a lawful permanent resident or a U.S. citizen.[426] H-1B visas are subject to an annual cap of 65,000, as established by the Immigration Act of 1990.[427] That cap has remained largely unchanged, outside of certain temporary increases from 1998 to 2003 (*see* **Table 7.1**).[428]
- H-1B visa petitioners must first navigate a highly competitive lottery process when the number of registrations exceeds the annual cap of 85,000.[429] In the fiscal year 2022, the U.S. Citizenship and Immigration Services (USCIS) received 308,613 registrations for the lottery,[430] and 131,924 registrations (42.7 percent)

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425 Ruiz, Neil G. and John Gramlich, "4 Paths Highly Educated Immigrants Take to Study and Work in the U.S.," Pew Research Center, February 1, 2019, *accessed* July 28, 2024.

426 "H-1B Petitions and Denial Rates in FY 2022," National Foundation for American Policy, February 2023.

427 Wilson, Jill H., "Temporary Professional Foreign Workers: Background, Trends, and Policy Issues," Congressional Research Service, June 9, 2022, p. 7.

428 Wilson, Jill H., "Temporary Professional Foreign Workers: Background, Trends, and Policy Issues," Congressional Research Service, June 9, 2022, pp. 7-8 In response to strong demand for temporary foreign workers from the information technology industry, Congress passed legislation in 1998 to temporarily increase the H-1B cap from 65,000 to 115,000 and again in 2000 to temporarily increase the cap from 115,000 to 195,000 for three years. The cap returned to 65,000 in 2004. *See also*, "H-1B Petitions and Denial Rates in FY 2023," National Foundation for American Policy, February 2024, p. 12 ("Under U.S. law, the annual limit on new H-1B petitions is 65,000, with a 20,000-exemption for individuals with a master's degree or higher from a U.S. university.").

429 Anderson, Stuart, "Employers Face Difficult Odds as H-1B Visa Cap Selection Starts," Forbes, May 10, 2024, *available at* https://www.forbes.com/sites/stuartanderson/2024/03/04/employers-face-difficult-odds-as-h-1b-visa-cap-selection-starts/, *accessed* August 23, 2024.

430 H-1B registrants are H-1B prospective petitioners. Only those who are selected upon electronic registration are eligible to file H-1B petitions. "H-1B Electronic Registration Process," U.S. Citizenship and Immigration Services, *available at* https://www.uscis.gov/working-in-the-united-states/temporary-workers/h-1b-specialty-occupations/h-1b-electronic-registration-process.

were randomly selected.[431] In the fiscal year 2023, USCIS received 483,927 registrations, and 127,600 registrations (26.4 percent) were randomly selected.[432] The significant increase in registrations from 2022 to 2023, coupled with a lower selection rate, highlights the growing demand for H-1B visas and the increasing lottery competition among petitioners. Once a registration is selected in the lottery, individuals can proceed to file a full H-1B visa petition with USCIS.

- According to the National Foundation for American Policy (NFAP), a non-profit research organization focused on immigration and international trade, "[a]pproximately half of approved new H-1B petitions in FY [fiscal year] 2023 (51.7%) were in professional, scientific and technical services. Second, with 14.3%, was educational services, which includes universities. […] Third was manufacturing (7.4%). Health care and social assistance (6.9%) was fourth. Information (6%) was fifth."[433]
- The number of H-1B visa petitions continues to grow each year, reflecting the increasing demand for skilled labor in the U.S. workforce. For fiscal year 2024, USCIS received 780,884 H-1B registrations, the highest number of H-1B registrations in the history of the program.[434]
- **Figure 7.1** below summarizes denial rates for H-1B petitions for initial employment for each fiscal year between FY 2009 and 2023. During the Trump administration, particularly between FY 2017 and FY 2020, H-1B denial rates increased to levels substantially higher than historical levels, peaking in FY 2018 at around 25 percent.

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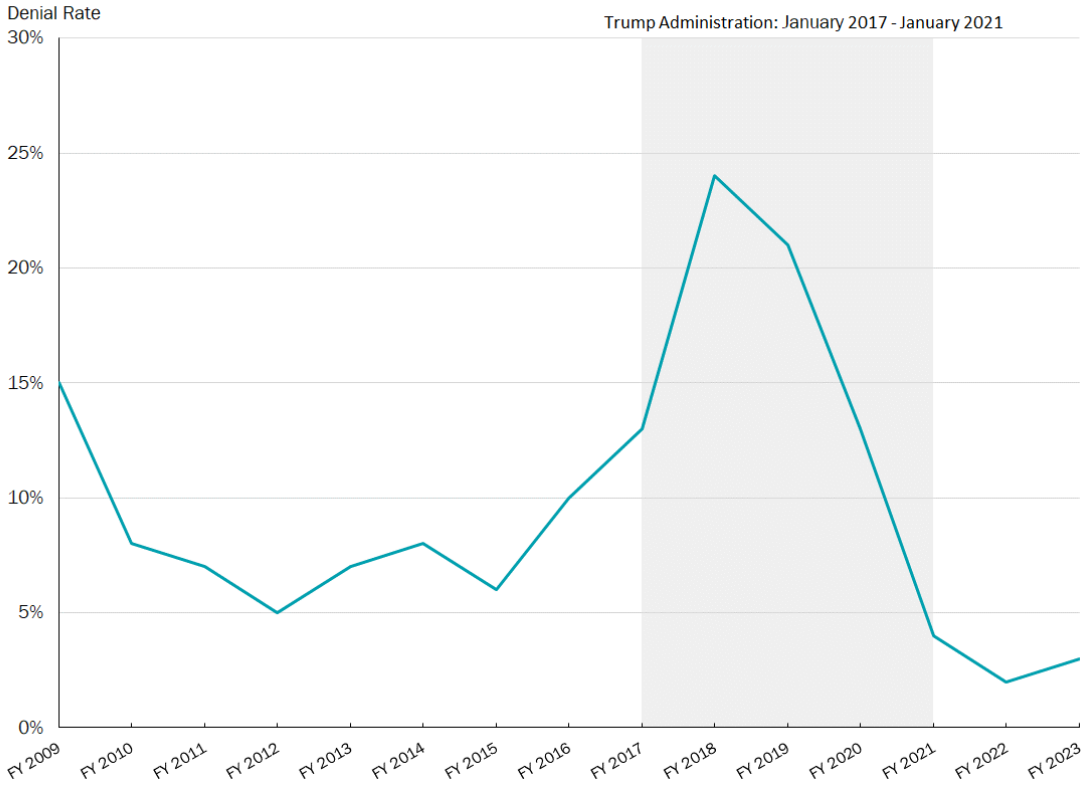
431 "H-1B Electronic Registration Process," U.S. Citizenship and Immigration Services, *available at* https://www.uscis.gov/working-in-the-united-states/temporary-workers/h-1b-specialty-occupations/h-1b-electronic-registration-process ("We subsequently announced that we would need to select additional registrations for unique beneficiaries to reach the FY 2025 regular cap numerical allocations. As announced on August 5, 2024, our projections indicate we have now randomly selected a sufficient number of registrations for unique beneficiaries as needed to reach the regular cap from the remaining properly submitted FY 2025 registrations. Additionally, we have notified all prospective petitioners with selected registrations from this round of selection that they are eligible to file an H-1B cap-subject petition for the beneficiary named in the applicable selected registration. We selected 13,607 beneficiaries in the second selection for the FY 2025 H-1B regular cap, resulting in 14,534 selected registrations."). Note that the number of registrations selected in the H-1B lottery exceeds the annual H-1B cap of 85,000 is due to USCIS's anticipation of attrition in the petition process. USCIS accounts for the fact that not all selected registrations will result in approved H-1B petitions. Some selected registrations may not proceed to filing, some petitions may be denied, and others might be withdrawn or revoked. To ensure that the full cap of 85,000 visas is met, USCIS selects more registrations than the cap allows, factoring in historical denial rates and other variables.

432 "H-1B Electronic Registration Process," U.S. Citizenship and Immigration Services, *available at* https://www.uscis.gov/working-in-the-united-states/temporary-workers/h-1b-specialty-occupations/h-1b-electronic-registration-process.

433 "H-1B Petitions and Denial Rates in FY 2023," National Foundation for American Policy, February 2024, p. 2.

434 Hawk, Sarah J., "As One H-1B Season Ends, Another Begins: Updates for Upcomming H-1B Lottery Season," Barnes & Thornburg LLP, January 11, 2024.

Figure 7.1: Historic Denial Rate for H-1B Petitions for Initial (New) Employment, Fiscal Years 2009-2023



Source: National Foundation for American Policy, H-1B Petitions and Denial Rates in FY 2023, February 2024.

ii. Restricting Flow of Foreign-Born Skilled Workers to the U.S. Economy Can Negatively Affect Native-Born U.S. Workers' Productivity and Wages

- According to the NFAP, "[t]he 85,000 annual limit on new H-1B petitions for high-skilled foreign nationals is low, equaling 0.05% of the U.S. labor force, and remains the leading immigration problem for most tech companies."[435] Economic research has found that maintaining or imposing further restrictions on the H-1B visa is unlikely to increase the demand for or wages of native-born U.S. workers.
- For example, a study by Peri, Shih, and Sparber (2014) researches the impact of worker growth (including foreign-born workers with the STEM backgrounds in the H-1B visa program) on the wages and employment of native U.S. workers from 2000 to 2011. The study finds that H-1B workers who work at computer-related occupations do not displace, but rather *complement* the productivity of native workers. It concludes that "native and foreign-born computer workers are complementary, or that foreign-born workers improve the productivity of firms,

[435] "H-1B Petitions and Denial Rates in FY 2023," National Foundation for American Policy, February 2024, p. 1.

thereby leading firms to expand their hiring. In this case denying firms the ability to hire foreign workers reduces the need for complementary natives as well. It might also reduce productivity growth and hence employment growth. Demand and wages could stagnate or decline for all workers. Additional H-1B workers would cause firms to expand while native computer specialists would not be crowded out and could even experience improved labor market opportunities."[436]

- Another study by Peri, Shih, and Sparber (2015) finds that "a 1 percentage point increase in the foreign STEM share of a city's total employment increased the wage growth of native college educated labor by about 7–8 percentage points and the wage growth of non-college-educated natives by 3–4 percentage points," and that "[t]hese results indicate that STEM workers spur economic growth by increasing productivity, especially that of college-educated workers."[437]
- Based on a signatory letter from 324 employers and trade, industry, and higher education associations and groups across the American economy focused on high-skilled workforce to President Trump in May 2020, the L-1, H-1B, and F-1 visas "have been most critical and have been tools in [their] toolbox for decades."[438] Since its creation in Congress in 1970, the L-1 visa allows businesses to transfer employees across nations "to harmonize operations, expand markets, service clients, and share knowledge."[439] L-1 visa restrictions are a significant concern as the visa promotes foreign investment to the United States, which creates domestic jobs, expands domestic manufacturing, and supports research and development.[440] In June of 2020, then-President Trump suspended entry of L-1 visas until the end of the year.[441] Additionally, the Department of Homeland Security introduced a provision in June 2024 requiring employers to pay an additional $4,500 to extend an L-1 visa in addition to the $4,500 fee for the initial petition.[442]

iii. Restricting Entry of Foreign-Born Skilled Workers Can Decrease U.S. Firms' Competitiveness in the Global Economy

- Because of large IT and software-based innovation shifts in the past several decades, U.S. companies have begun to expand offices overseas to meet the

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436 Peri, Giovanni, Kevin Shih, and Chad Sparber, "The Effects of Foreign Skilled Workers on Natives: Evidence from the H-1B Visa Lottery," Working Paper, April 20, 2014, p. 21.

437 Peri, Giovanni, Kevin Shih, and Chad Sparber, "STEM Workers, H-1B Visas, and Productivity in U.S. Cities," Journal of Labor Economics, July 2015, Vol. 33, No. S1, U.S. High-Skilled Immigration in the Global Economy (Part 2), pp. S225-S255, p. S252.

438 "Signatory Businecss Letter to President and Secretaries," May 21, 2020, *accessed* July 19, 2024, p. 2.

439 "Signatory Businecss Letter to President and Secretaries," May 21, 2020, *accessed* July 19, 2024, p. 2.

440 "Signatory Businecss Letter to President and Secretaries," May 21, 2020, *accessed* July 19, 2024, p. 3.

441 "Presidential Proclamation Suspending Entry of Individuals Who Present a Risk to the U.S. Labor Market Following the Coronavirus Outbreak," American Immigration Lawyers Association, June 29, 2020, *available at* https://www.aila.org/library/presidential-proclamation-suspending-entry, *accessed* August 19, 2024.

442 "9-11 Response and Biometric Entry-Exit Fee for H-1B and L-1 Visas," Federal Register, June 6, 2024, Vol. 89 FR, No. 110, pp. 48339-48348, p. 48348.

skilled labor shortages they face in the United States.[443] For example, Glennon (2024) studies how firms respond to restrictions on skilled immigration and finds that "firms respond to restrictions on H-1B immigration by increasing foreign affiliate employment at the intensive and extensive margins, particularly in China, India, and Canada." On average, a multinational company hires 0.4 employees abroad for every H-1B visa rejection, and "[t]he most globalized [multinational company] are the most likely to respond to these restrictions by offshoring […] these firms hire 0.9 employees abroad for every visa rejection."[444]

- Innovative spillovers generated by skilled foreign-born workers benefit these foreign countries with more open immigration policies, which reduces the U.S. economy's innovative capacity and relative competitiveness:[445] "When U.S. firms are denied H-1Bs, they go abroad, setting up new foreign affiliates and hiring talent there instead of in the U.S. […] The results demonstrate an important unintended consequence of immigration restrictions: the movement of jobs and talent abroad, with major implications for U.S. competitiveness."[446]
- According to a study by Brinatti and Guo (2023), restrictions of H1-B visa can lead to contractions of the U.S. economy. For example, in 2017, under the Trump administration, a change in the interpretation of the law decreased H-1B visa approvals and increased immigration to Canada in certain occupations, especially those considered high-skilled. The authors find that "Canadian firms that were relatively more exposed to the inflow of immigrants increased production, exports, and the wage bill paid to native workers."[447] The increased competition from Canada caused U.S. sectors, particularly in the "high-skilled service" and "high-tech manufacturing" sectors to contract.[448]
- Universities have been critical in attracting and training international students on F-1 visas to work in the STEM-designated field after graduation. The United States has long relied on international scientists to stay innovative and competitive.[449] As discussed in Section III, international students are more likely to get their post-baccalaureate degrees in a STEM-designated field than native-born U.S. students. Studies have found that due to more restrictive immigration policies, increasing

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443 Branstetter, Lee G., Britta Glennon, and J. Bradford Jensen, "The It Revolution and the Globalization of R&D," Innovation Policy and Economy, 2019, Vol. 19.

444 Glennon, Britta, "How Do Restrictions on High-Skilled Immigration Affect Offshoring? Evidence from the H1-B Program," Management Science, 2024, Vol. 70, No. 2, pp. 907-930, p. 907.

445 Glennon, Britta, "How Do Restrictions on High-Skilled Immigration Affect Offshoring? Evidence from the H1-B Program," Management Science, 2024, Vol. 70, No. 2, pp. 907-930.

446 "H-1B Petitions and Denial Rates in FY 2023," National Foundation for American Policy, February 2024, p. 16.

447 Brinatti, Agostina and Xing Guo, "Third-County Effects of U.S. Immigration Policy," Working Paper, Novermber 2023, pdf p. 1.

448 Brinatti, Agostina and Xing Guo, "Third-County Effects of U.S. Immigration Policy," Working Paper, Novermber 2023, p. 41.

449 Roach, Michael and John Skrentny, "Why Foreign STEM Phds Are Unlikely to Work for U.S. Technology Startups," Proceedings of the National Academy of Sciences, August 5, 2019, Vol. 116, No. 34, pp. 16805-16810, p. 16805.

numbers of international graduates with STEM-designated degrees returned to their home countries where the hiring environment became more attractive.[450]

- The main pathways for international scientists and graduates with STEM-designated degrees to work and remain in the United States are the H, J, and L visa programs.[451] In June 2020, the Trump administration issued an executive order suspending H1-B, H2-B, J-1, and L-1 visas until the end of the year.[452]
  - A study by Feeny et al. (2023) on the impact of visa and immigration policies on research collaborations finds that "[s]hifts in US immigration policy toward national security and border control coupled with executive orders that targeted particular populations threatened the flow of international scientists to US universities and increased uncertainty and administrative burdens for international applicants."[453]
  - Roach and Skrentny (2019) focus on the foreign-born graduates from STEM-designated doctoral programs who worked at technology startups and finds that "foreign STEM PhDs who require visa sponsorship are half as likely as their US peers to work in technology startups in their first industry job. This not only has implications for our understanding of science careers and the highly skilled immigrant workforce but also, reveals the burden that current US visa policies place on technology startups. Given the large and growing number of foreign STEM PhDs graduating from US universities, this is a significant issue for high-growth technology startups and the overall innovation economy."[454]

C. Impact of Immigration Restrictions on Low-Wage Workers

- There are public concerns that immigration of low-wage workers may have negative economic and fiscal effects.
  - For example, according to a 2022 poll conducted by Gallup, a global analytics and advisory firm that regularly conducts surveys on public

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450 Kahn, Shulamit and Megan MacGarvie, "The Impact of Permanent Residency Delays for STEM Ph.D.S: Who Leaves and Why," NBER Working Paper Series, October 2018, No. 25175, p. 1. *See also*, Marini, Giulio and Lili Yang, "Globally Bred Chinese Talents Returning Home: An Analysis of a Reverse Brain-Drain Flagship Policy," Science and Public Policy, 2021, Vol. 48, No. 4, pp. 541-552.

451 Feeney, Mary K., Heyjie Jung, Timothy P. Johnson, and Eric W. Welch, "U.S. Visa and Immigration Policy Challenges: Explanations for Faculty Perceptions and Intent to Leave," Research in Higher Education, 2023, Vol. 64, pp. 1031-1057, p. 1035.

452 "Presidential Proclamation Suspending Entry of Individuals Who Present a Risk to the U.S. Labor Market Following the Coronavirus Outbreak," American Immigration Lawyers Association, June 29, 2020, *available at* https://www.aila.org/library/presidential-proclamation-suspending-entry, *accessed* August 19, 2024.

453 Feeney, Mary K., Heyjie Jung, Timothy P. Johnson, and Eric W. Welch, "U.S. Visa and Immigration Policy Challenges: Explanations for Faculty Perceptions and Intent to Leave," Research in Higher Education, 2023, Vol. 64, pp. 1031-1057, p. 1035.

454 Roach, Michael and John Skrentny, "Why Foreign STEM Phds Are Unlikely to Work for U.S. Technology Startups," Proceedings of the National Academy of Sciences, August 5, 2019, Vol. 116, No. 34, pp. 16805-16810, p. 16810.

opinion, "the majority [of Americans] say they make the drug problem worse (55%), and far more — though less than majorities — think immigrants worsen the nation's crime situation and taxes than say they improve these things."[455]

- Economic theory also predicts that workers "who are the closest substitutes for immigrants are most likely to experience immigration-induced wage declines," suggesting that prior immigrants and native high school dropouts are particularly vulnerable to "the large share of low-skilled workers among immigrants to the United States."[456]
- Additionally, a 2017 National Academies of Sciences, Engineering, and Medicine (NASEM), a group of non-profit institutions that provide expert advice on national and global issues, report by Blau and Mackie studies the impact of immigration on wages and employment and finds that "first-generation [immigrants] are more costly to governments, mainly at the state and local levels, than are the native-born." For example, the study cites that low-wage immigrant workers on average have higher utilization of certain public programs than their high-skilled counterparts.[457]

- Empirical studies find little to no evidence of negative impacts on native-born wages and employment in the United States, especially when measured over the long term.
  - In the same NASEM report, Blau and Mackie find that "[w]hen measured over a period of more than 10 years, the impact of immigration on the wages of natives overall is very small."[458]
  - Clemens and Lewis (2022) focus on non-agriculture and non-manufacturing firms and conclude that restrictions on the flow of low-wage foreign-born workers "cause a large and statistically significant decrease in revenue and investment [for the affected firms]. The restrictions cause no increase, or a decrease, in the employment of low-skill native workers and the rate of profit."[459] The authors note that one explanation for this finding could be that low-wage foreign-born workers are poor substitutes for low-wage native workers in non-agriculture and

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455 Saad, Lydia, "Americans Still Value Immigration, but Have Concerns," Gallup, July 13, 2023, *available at* https://news.gallup.com/poll/508520/americans-value-immigration-concerns.aspx?version=print, *accessed* August 19, 2024.

456 Blau, Francine D. and Christopher Mackie, *The Economic and Fiscal Consequences of Immigration*, Washington, DC, National Academies of Sciences, Engineering, and Medicine, p. 266.

457 Blau, Francine D. and Christopher Mackie, *The Economic and Fiscal Consequences of Immigration*, Washington, DC, National Academies of Sciences, Engineering, and Medicine, p. 7.

458 *See, e.g.*, Blau, Francine D. and Christopher Mackie, *The Economic and Fiscal Consequences of Immigration*, Washington, DC, National Academies of Sciences, Engineering, and Medicine, pp. 5-6.

459 Clemens, Michael A. and Ethan G. Lewis, "The Effect of Low-Skill Immigration Restrictions on U.S. Firms and Workers: Evidence from a Randomized Lottery," IZA Institute of Labor Economics Discussion Paper Series, October 2022, No. 15667, p. 1.

non-manufacturing firms where automation is not a viable substitute.[460] The study finds that increasing the hiring of H-2B visa holders "raises firm revenues [...] and also weakly raises, rather than lowers, their employment of U.S. workers," and the effects are even higher in firms located in rural areas.[461]

- Colas and Sachs (2024) study the "indirect fiscal effect" brought by low-wage foreign-born workers. The indirect fiscal effect is defined as the changes in the effective tax payments of local workers due to the changes in the wage structure brought by the influx of low-wage foreign-born workers. The authors find that "one average low-skilled immigrant that enters the US adds roughly $750 annually to public finances through this indirect effect. For low-skilled immigrants with a high school degree, this may outweigh the direct fiscal costs estimated in the NAS (National Academy of Sciences) report."[462]

- Restrictions on low-wage labor could also impact the United States' ability to attract high-skilled labor. For example:
  - A 2018 report from Congression Research Service finds that while family-based immigration policies arguably attract more low-wage foreign-born workers due to the lack of minimum education or skill requirements,[463] low-wage foreign-born workers can create opportunities for high-skilled relatives to seek job opportunities in the United States.[464]
  - Research from the American Immigration Council finds that family-based immigration allows high-skilled workers coming to the United States on employment-based visas to create opportunities for relatives,[465] potentially making the United States an attractive immigration destination.[466]
  - Chassamboulli and Peri (2020), in a study analyzing the economic effects of different immigration policies, find that in the long run, "[u]nskilled

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460 Clemens, Michael A. and Ethan G. Lewis, "The Effect of Low-Skill Immigration Restrictions on U.S. Firms and Workers: Evidence from a Randomized Lottery," IZA Institute of Labor Economics Discussion Paper Series, October 2022, No. 15667, p. 54.

461 Clemens, Michael A. and Ethan G. Lewis, "The Effect of Low-Skill Immigration Restrictions on U.S. Firms and Workers: Evidence from a Randomized Lottery," IZA Institute of Labor Economics Discussion Paper Series, October 2022, No. 15667, p. 53.

462 Colas, Mark and Dominik Sachs, "The Indirect Fiscal Benefits of Low-Skilled Immigration," American Economic Journal: Economic Policy, 2024, Vol. 16, No. 2, pp. 515-550, p. 516.

463 Kandel, William A., "U.S. Family-Based Immigration Policy," Congressional Research Service, February 9, 2018, p. 22.

464 Chassamboulli, Andri and Giovanni Peri, "The Economic Effect of Immigration Policies: Analyzing and Simulating the U.S. Case," Journal of Economic Dynamics and Control, May 2020, Vol. 114, No. 103898, p. 3.

465 "The Advantages of Family-Based Immigration," American Immigration Council, March 14, 2013, *available at* https://www.americanimmigrationcouncil.org/advantages-family-based-immigration, *accessed* August 19, 2024, pp. 2-3.

466 *See, e.g.*, Duleep, Harriet Orcutt, "U.S. Immigration Policy at a Crossroads," IZA Institute of Labor Economics Discussion Paper Series, January 2013, No. 7136, p. 23.

family and undocumented immigrants produce large surplus to firms because their wages per unit of productivity are lower than those of natives due to their worse outside options. High-skilled employment immigrants, instead, are selected on ability and increase the expected firm surplus from a match due to their higher productivity. Both effects generate more job creation and tighter labor markets," so that policies restricting immigrants in the United States "directly or indirectly have a depressing effect on job creation and, in turn, on native labor markets."[467]

D. Negative Impacts Associated with Restrictions on Refugees

- According to the Center for Migration Studies, a think tank focused on studying international migration and immigration policy, "[t]he US refugee resettlement program should be a source of immense national pride. The program has saved countless lives; put millions of impoverished persons on a path to work, self-sufficiency, and integration; and advanced US standing in the world. Its beneficiaries have included US leaders in science, medicine, business, the law, government, education, and the arts."[468]
- Despite enjoying bipartisan support for almost 4 decades, refugee admissions declined during the Trump administration due to policy changes, hindering humanitarian efforts and delaying family reunifications.[469] Every year, the President of the United States, in consultation with Congress, sets the number of refugees that may be admitted into the United States.[470] The limit fell to historical lows from 2017 to 2020 during the Trump administration, before recovering during the Biden administration (see **Figure 7.2**).

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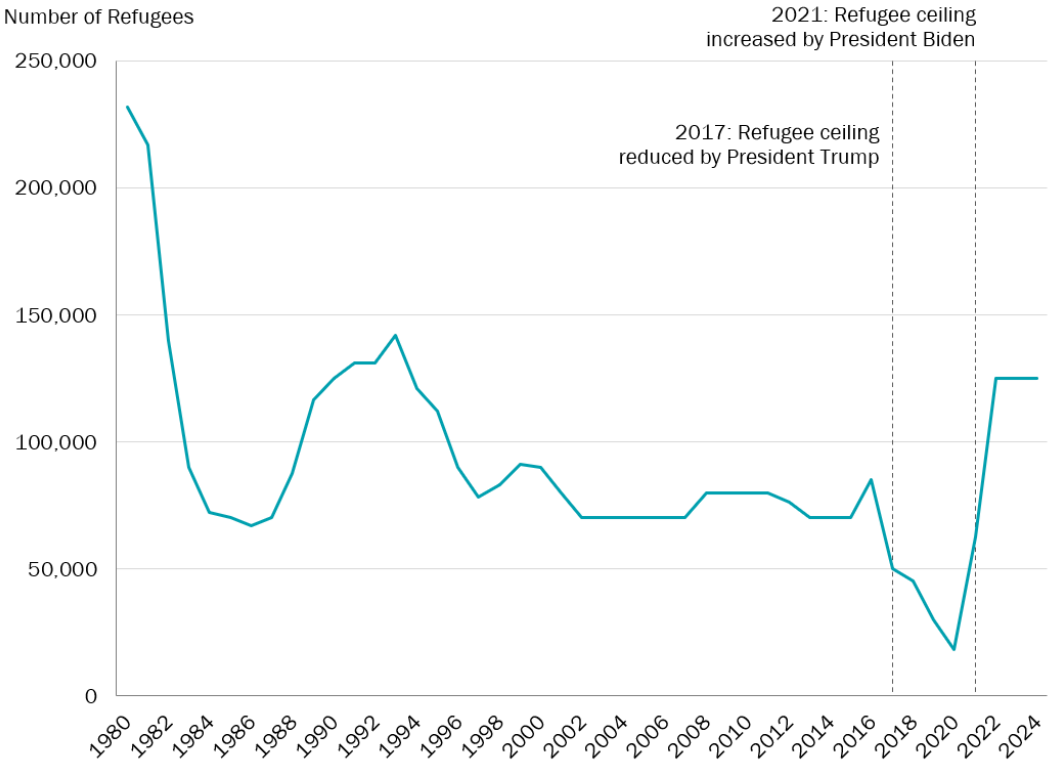
467 Chassamboulli, Andri and Giovanni Peri, "The Economic Effect of Immigration Policies: Analyzing and Simulating the U.S. Case," Journal of Economic Dynamics and Control, May 2020, Vol. 114, No. 103898, p. 1.

468 Kerwin, Donald, "The U.S. Refugee Resettlement Program -- a Return to First Principles: How Refugees Help to Define, Strengthen, and Revitalize the United States," Journal on Migration and Human Security, 2018, Vol. 6, No. 3, pp. 205-225, p. 1.

469 Kerwin, Donald, "The U.S. Refugee Resettlement Program -- a Return to First Principles: How Refugees Help to Define, Strengthen, and Revitalize the United States," Journal on Migration and Human Security, 2018, Vol. 6, No. 3, pp. 205-225, p. 1.

470 "Factsheet: U.S. Refugee Resettlement," National Immigration Forum, p. 1.

Figure 7.2: U.S. Annual Limit for Refugee Admissions, 1980-2024



Source: Migration Policy Institute, U.S. Annual Refugee Resettlement Ceilings and Number of Refugees Admitted, 1980-Present.

- Although refugees may be more likely to be perceived to be threats or burdens,[471] data indicate that they make positive contributions to the U.S. economy and complement both native-born Americans and other immigrants. For example, according to the Center for Migration Studies:
  - "Refugees' labor force participation (68 percent) and employment rates (64 percent) exceed those of the total US population (63 and 60 percent, respectively)."[472]
  - "Large numbers of refugees (10 percent) are self-employed and, in this and other ways, job creators, compared to 9 percent of the total US population."[473]

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471 Kerwin, Donald, "The U.S. Refugee Resettlement Program -- a Return to First Principles: How Refugees Help to Define, Strengthen, and Revitalize the United States," Journal on Migration and Human Security, 2018, Vol. 6, No. 3, pp. 205-225, p. 1.

472 Kerwin, Donald, "The U.S. Refugee Resettlement Program -- a Return to First Principles: How Refugees Help to Define, Strengthen, and Revitalize the United States," Journal on Migration and Human Security, 2018, Vol. 6, No. 3, pp. 205-225, p. 2.

473 Kerwin, Donald, "The U.S. Refugee Resettlement Program -- a Return to First Principles: How Refugees Help to Define, Strengthen, and Revitalize the United States," Journal on Migration and Human Security, 2018, Vol. 6, No. 3, pp. 205-225, p. 2.

- "Refugees' median personal income ($20,000) equals that of non-refugees and exceeds the income of the foreign-born overall ($18,700)."[474]
- "Refugees are more likely to be skilled workers (38 percent) than non-refugees (33 percent) or the foreign-born (35 percent)."[475]
- "Refugees are less likely to work in jobs that new immigrants fill at high rates, such as construction, restaurants and food service, landscaping, services to buildings and dwellings, crop production, and private households."[476]
- "Refugees use food stamps and Medicaid at higher rates than non-refugees, the foreign-born, and the total US population. Their public benefit usage significantly declines throughout time, however, and their integration, well-being, and US family ties increase."[477]

E. Negative Impacts of Visa Restrictions on the Long-Term Growth of the U.S. Economy

i. Immigration Helps Mitigate the Challenges Posed by the Aging Population in the United States and Contributes to Long-Term Economic Growth

- Immigration plays a critical role in maintaining the size of the U.S. labor force.[478]
- In November 2023, the Census Bureau published updated U.S. population projections using updated data on births, deaths, and immigration.[479] After incorporating updated data on births, deaths, and immigration, the Census

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474 Kerwin, Donald, "The U.S. Refugee Resettlement Program -- a Return to First Principles: How Refugees Help to Define, Strengthen, and Revitalize the United States," Journal on Migration and Human Security, 2018, Vol. 6, No. 3, pp. 205-225, p. 2.

475 Kerwin, Donald, "The U.S. Refugee Resettlement Program -- a Return to First Principles: How Refugees Help to Define, Strengthen, and Revitalize the United States," Journal on Migration and Human Security, 2018, Vol. 6, No. 3, pp. 205-225, p. 2.

476 Kerwin, Donald, "The U.S. Refugee Resettlement Program -- a Return to First Principles: How Refugees Help to Define, Strengthen, and Revitalize the United States," Journal on Migration and Human Security, 2018, Vol. 6, No. 3, pp. 205-225, p. 2.

477 Kerwin, Donald, "The U.S. Refugee Resettlement Program -- a Return to First Principles: How Refugees Help to Define, Strengthen, and Revitalize the United States," Journal on Migration and Human Security, 2018, Vol. 6, No. 3, pp. 205-225, p. 2.

478 Blau, Francine D. and Christopher Mackie, *The Economic and Fiscal Consequences of Immigration*, Washington, DC, National Academies of Sciences, Engineering, and Medicine, p. 4 ("The portion of the labor force that is foreign born has risen from about 11 percent to just over 16 percent in the past 20 years. Immigrants and their children will account for the vast majority of current and future net workforce growth—which, at less than 1 percent annually, is slow by historical standards.").

479 "U.S. Population Projected to Begin Declining in Second Half of Century," U.S. Census Bureau, November 9, 2023, *available at* https://www.census.gov/newsroom/press-releases/2023/population-projections.html, *accessed* August 19, 2024.

Bureau concluded that population growth is slower than previously projected in 2017.[480]

- The Census Bureau analyzed 4 immigration scenarios and concluded that "except for the zero-immigration scenario, immigration is projected to become the largest contributor to population growth," as "[r]educed fertility and an aging population result in [...] an excess of deaths relative to births."[481]
- Jackson (2021), a study on the role of immigration on an aging America, finds that immigration is expected to drive most of its growth through 2050; in other words, the labor force would shrink in the absence of immigration.[482]
- In 2017, NASEM published a report documenting the evidence-based consensus on the economic and fiscal consequences of immigration and concluded that "immigration has an overall positive impact on long-run economic growth in the U.S."[483] The report concludes that immigration has "helped the United States to avoid the problems facing stagnant economies created by unfavorable demographics" and "boosted the nation's capacity for innovation, entrepreneurship, and technological change. [...] The prospects for long-run economic growth in the United States would be considerably dimmed without the contributions of high-skilled immigrants."[484]

ii. Temporary Work Visa Restrictions Can Negatively Impact the U.S. Immigration Pipeline

- Foreign-born workers play a key role in the U.S. labor force. In 2022, the Bureau of Labor Statistics (BLS) estimated that 18.1 percent of the U.S. labor force, or 29.8 million out of 164.3 million people, were foreign-born.[485] Foreign-born workers can be naturalized U.S. citizens, lawful permanent residents (LPRs), temporary workers, or undocumented immigrants.
- The Pew Research Center, an American think tank, estimated that in 2022, 49 percent of immigrants were naturalized citizens, 24 percent were LPRs, 4 percent were temporary residents, and 23 percent were undocumented, regardless of

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480 "U.S. Population Projected to Begin Declining in Second Half of Century," U.S. Census Bureau, November 9, 2023, *available at* https://www.census.gov/newsroom/press-releases/2023/population-projections.html, *accessed* August 19, 2024.

481 "U.S. Population Projected to Begin Declining in Second Half of Century," U.S. Census Bureau, November 9, 2023, *available at* https://www.census.gov/newsroom/press-releases/2023/population-projections.html, *accessed* August 19, 2024.

482 Jackson, Richard, "The Vital Role of Immigration in an Aging America," The Concord Coalition & the Global Aging Institute, Fall 2021, pp. 3-4.

483 "Description: Economic and Fiscal Impact of Immigration," National Academies Press, *available at* https://www.nationalacademies.org/our-work/economic-and-fiscal-impact-of-immigration, *accessed* August 16, 2024.

484 Blau, Francine D. and Christopher Mackie, *The Economic and Fiscal Consequences of Immigration*, Washington, DC, National Academies of Sciences, Engineering, and Medicine, pp. 6-7.

485 "Foreign-Born Workers: Labor Force Characteristics -- 2022," U.S. Bureau of Labor Statistics, May 18, 2023, Table 1.

working status.[486] Visa restrictions impact the flow of workers coming into the United States as temporary residents in the short term, as discussed above, but they could also affect the number of LPRs and subsequently the number of naturalizations in the long term.

- Upon becoming LPRs, immigrants are given a permanent resident card, commonly known as a Green Card. LPRs are authorized to work in the United States indefinitely and without sponsorship, even if their Green Card was not issued for employment purposes.[487] Green Cards are typically issued on the basis of family reunification, employment, origin-country diversity, and humanitarian assistance (see **Table 7.2**).[488] Family- and employment-related reasons, comprising 63.0 percent and 19.4 percent, respectively, represented the majority of Green Card issuances from 2018 through 2022.[489]

Table 7.2: Summary of Green Card Categories

Green Card Category	Yearly Cap[2],[3]	No. of Green Cards Issued (2018–2022)[1]	Other Key Features/Restrictions
Family-based (immediate relatives)	None	2022: 428,268 2021: 385,396 2020: 321,148 2019: 505,765 2018: 478,961	• Includes "Spouses of U.S. citizens; Unmarried minor children of U.S. citizens (under 21 years old); and Parents of U.S. citizens (petitioner must be at least 21 years old to petition for a parent) [...]."[3]
Family-based (family-sponsored preferences)	226,000	2022: 166,041 2021: 65,690 2020: 121,560 2019: 204,139 2018: 216,563	• Includes "Adult children (married or unmarried) of U.S. citizens; Brothers and sisters of U.S. citizens [...]; and Spouses and unmarried children (minor and adult) of LPRs [Green Card holders]."[3]
Employment-based	140,000	2022: 270,284 2021: 193,338 2020: 148,959 2019: 139,458 2018: 138,171	• Need to be sponsored by employer. Some sub-categories may also need Department of Labor approval.[3]
Diversity immigrants	55,000	2022: 43,233 2021: 15,145 2020: 25,028 2019: 43,463	• Lottery for "countries with low rates of immigration to United States".[3] • Applicants must "have a high school education (or its equivalent)

486 Moslimani, Mohamad and Jeffrey S. Passel, "What the Data Says About Immigrants in the U.S.," Pew Research Center, July 22, 2024, *available at* https://www.pewresearch.org/short-reads/2024/7/22/key-findings-about-us-immigrants/, *accessed* August 19, 2024.

487 "Rights and Responsibilities of a Green Card Holder (Permanent Resident)," U.S. Citizenship and Immigration Services, *available at* https://www.uscis.gov/green-card/after-we-grant-your-green-card/rights-and-responsibilities-of-a-green-card-holder-permanent-resident, *accessed* August 19, 2024.

488 Straut-Eppsteiner, Holly, "Primer on U.S. Immigration Policy," Congressional Research Service, July 1, 2021, p. 2.

489 "2022 Yearbook of Immigration Statistics," Office of Homeland Security Statistics, *available at* https://www.dhs.gov/sites/default/files/2024-02/2023_0818_plcy_yearbook_immigration_statistics_fy2022.pdf, Table 6. 63.0% = (2,119,538 + 773,993) / 4,594,089 and 19.4% = 890,210 / 4,594,089. The numerators represent, respectively, the sum of the 2018-2022 totals for immediate relatives and family-sponsored preferences and the 2018-2022 total for employment-based Green Cards. The denominators represent the 2018-2022 total for all Green Card issuances.

		2018: 45,350	or have, within the past five years, a minimum of two years working in a profession requiring at least two years of training or experience."[3]
Refugees and Asylees	Refugees: Set every year Asylees: No annual limit	2022: 83,082 2021: 56,397 2020: 63,875 2019: 106,911 2018: 185,909	• Admitted due to "inability to return to their home countries because of a 'well-founded fear of persecution' due to their race, membership in a particular social group, political opinion, religion, or national origin."[3] • "Each year, the president, in consultation with Congress, determines the numerical ceiling for refugee admissions. The overall cap is broken down into limits for each region of the world."[3] • No limits for the number of admitted asylum seekers.[3]
Others	Various limits	2022: 27,441 2021: 24,036 2020: 26,792 2019: 32,029 2018: 31,657	• "Includes parolees, children born abroad to alien residents, certain Iraqis and Afghans employed by the U.S. government, cancellation of removal, victims of human trafficking, and victims of crime."[1]

Note: The number of Green Card recipients can exceed the yearly cap for 2 reasons. First, there may be timing differences between when LPR status is granted and when the recipients arrive in the United States and are counted as Green Card recipients by the Department of Homeland Security. Second, unused Green Card issuances in one category may also sometimes be transferred to other categories. In 2022, employment-based Green Cards were higher than usual because the COVID-19 pandemic prevented many family-sponsored Green Cards from being used in 2021.

Sources:
[1] Office of Homeland Security Statistics, 2022 Yearbook of Immigration Statistics, *available at* https://www.dhs.gov/sites/default/files/2024-02/2023_0818_plcy_yearbook_immigration_statistics_fy2022.pdf, Table 6.
[2] Congressional Research Service, Nonimmigrant and Immigrant Visa Categories: Data Brief, October 18, 2023, *available at* https://crsreports.congress.gov/product/pdf/R/R45938, Table 2 and notes.
[3] American Immigration Council, How the United States Immigration System Works, June 24, 2024, *available at* https://www.americanimmigrationcouncil.org/research/how-united-states-immigration-system-works, *accessed* July 22, 2024.

- Additional restrictions on nonimmigrant visas would not only negatively affect the visa holders, but it would also reduce the number of people who are eligible for Green Cards. In the fiscal year ending September 30, 2022, 81.9 percent of people who received employment-based Green Cards were already in the United States on a nonimmigrant visa, as opposed to 18.1 percent who arrived from another country.[490] Furthermore, naturalization generally requires being an LPR

[490] "2022 Yearbook of Immigration Statistics," Office of Homeland Security Statistics, *available at* https://www.dhs.gov/sites/default/files/2024-02/2023_0818_plcy_yearbook_immigration_statistics_fy2022.pdf, Table 6. When all permanent residency categories are considered, only 54.3 percent transitioned from a nonimmigrant visa.

first.[491] Given that the majority of the immigrant population eventually become LPRs or naturalized citizens who are allowed to work in the United States indefinitely, restrictions on nonimmigrant visas would substantially reduce the pipeline of such workers, with potentially negative impact on the long-term growth of the U.S. economy.

[491] 98.5 percent of people naturalized in 2023 transitioned from LPRs. "Naturalization Statistics," U.S. Citizenship and Immigration Services, *available at* https://www.uscis.gov/citizenship-resource-center/naturalization-statistics, *accessed* August 19, 2024.

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