

Boosting Immigration

Harnessing global talent to increase US competitiveness,
innovation, and prosperity



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Since 1942, the Committee for Economic Development of The Conference Board (CED) has provided reasoned solutions in the national interest. As a nonprofit, nonpartisan, business-led public policy organization, CED has long recognized the importance of a large and skilled American workforce in achieving our country's prosperity and growth, and has consistently advocated for policies and practices to ensure that Americans of all backgrounds are able to more fully develop and profit by their talents. We continue to believe that human investments, starting at the earliest ages, are among the most important that our nation can make, and that the business community should be among the leaders in making this argument to policy makers and the public at large.

In a rapidly changing 21st-century economy with growing competition from abroad, continuing to field a world-leading, skilled workforce is both more essential and more challenging than ever to the mission of delivering increasing prosperity for American families and preserving our nation's economic leadership. The US must therefore confront its demographic challenges, as an aging population and slowing labor force growth pose risks to the economic strength and fiscal health of the country.

CED seeks to confront these challenges and offer policy makers and business leaders balanced, reasoned solutions in the nation's interest to grow and strengthen the American workforce. We recognize that no one approach to improving the workforce will be enough, and that business and the public sector each have critical roles to play. If the US hopes to remain the world's economic leader in the face of its global and domestic challenges, it will need to maximize the potential of all its citizens *and* attract skilled workers from outside its borders. The US needs more workers *and* needs to do a better job of educating, preparing, and retraining the potential workers it already has, to ensure that all Americans are positioned to prosper in the face of future economic competition. Critically, workforce advantages the US once enjoyed can be rebuilt by better accessing the full diversity of our available talent.



This paper—focused on reforming immigration policy to promote long-run US economic growth and prosperity—is the second in a series of policy briefs that, together, will help chart a path toward meeting these goals. It follows *Growing the American Workforce: Bolstering Participation Is Critical for US Competitiveness and Economic Strength*, which offered reasoned, evidence-based policies for increasing near-term labor force participation and attachment as a strategy for delivering more widely shared prosperity for families, a deeper, more-skilled pool of talent for American businesses, and more robust economic growth and fiscal stability for all. *Boosting Immigration* also builds on and complements past CED work advocating for immigration policies to better grow the economy and meet the needs of all US citizens.

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Trusted Insights for What's Ahead

With the challenges presented by slowing population and labor force growth and an aging populace, delivering continued prosperity for American families and preserving our economic leadership will require the US to embrace every available advantage to bolster the strength and productivity of the American workforce. With its ability to help supplement and complement our existing labor force with additional skills and talent—creating new entrepreneurial and employment opportunities—immigration policy presents an enormous opportunity for achieving our nation's economic goals but continues to be underutilized.

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Immigration has been critical to past US growth, widely benefiting most Americans and leading to a larger, wealthier, more dynamic nation overall. While immigration remains a significant economic strength for the US, we cannot afford to be complacent about our past advantages or our future ability to secure the world's most in-demand migrants. Instead, the US is facing growing global competition and finds itself in an increasingly crowded and competitive global marketplace for talent, with many countries pursuing policies intended to advantage their own employers and workforce by welcoming increasing shares of the international students, entrepreneurs, and workers with the most in-demand skills.

Business leaders and policymakers concerned about US prosperity and global competitiveness in a rapidly changing 21st-century economy should work together to advance thoughtful and achievable immigration reforms in the national interest. The US needs an immigration system capable of attracting and selecting the additional talent employers need, making the US the preferred choice of the most in-demand international migrants, and capturing the potential gains from increased innovation—all while preserving the uniquely American characteristics and advantages of our current approach. Reform is needed to make immediate improvements to the H-1B temporary visa program that serves as a critical initial gateway for many highly qualified and educated foreign migrants attracted to work in the US, which contributes to their personal, and our nation's, growth. The US must also act to realign its permanent immigration rules to more explicitly target the nation's long-run economic needs.

The US immigration system has remained largely unchanged for decades, while other countries with which we compete for in-demand global migrants have sought to innovate and fine-tune their recruiting efforts. Further delay in improving our immigration policies will result in a continuing decline in US advantages, an ongoing rise in regional demographic and fiscal pressures, and an increasing likelihood that the next great invention or company will arise elsewhere, each with significant long-run consequences for US economic strength. Instead, CED recommends that business leaders and policymakers champion six specific reforms to better align US immigration policy with the nation's economic interest.

Six ways to realign immigration policy to increase global competitiveness and boost the US workforce

- 1 Reform the H-1B visa application and approval process** Strengthen the US's attractiveness to the most in-demand international workers and graduates and allow employers to access top talent more quickly and predictably by pursuing a series of reforms to the H-1B visa program, including:
 - Shifting to quarterly or monthly allotments of visas;
 - Speeding up visa processing;
 - Prioritizing visas for the eligible applicants with the highest offered salaries; and
 - Instituting a mechanism to modestly increase or decrease the number of available visas based on recent demand.
- 2 Improve the H-1B visa pathway to permanent residence** Make the H-1B visa pathway to permanent residence more predictable and attractive for in-demand H-1B visa workers by allowing them to self-nominate for permanent residence upon the initial renewal of their H-1B visa and by making it easier for the spouses of H-1B visa holders on track for permanent residence to gain a temporary work authorization.
- 3 Increase economically motivated offers of permanent residence** Rebalance US immigration priorities towards the national economic interest while protecting existing family reunification visa levels and the diversity lottery by increasing annual permanent immigration inflow levels, channeling additional visa offers to immigrants selected for economic reasons, and removing country-of-origin based limitations on employment-based offers of permanent residence.
- 4 Pilot a "fast-track" entry program for top international recruits** Increase US attractiveness to top international talent by piloting the use of a points-based immigrant selection process to "fast track" a limited number of highly qualified workers into the US and towards expedited offers of permanent residence.
- 5 Set aside an annual allocation of "place-based" employment visas** Ensure that more communities can compete for and benefit from international talent aligned with their specific labor market needs by allowing for a designated number of region-specific offers of immigration.
- 6 Establish a Workforce and Immigration Policy Advisory Board** Better inform US immigration policy discussions, legislation, and oversight by establishing a standing, bipartisan advisory group tasked with tracking and anticipating key issues and trends, monitoring US success in recruiting top talent relative to other countries with which we compete, and providing recommendations for the operation of an immigration system that most effectively advances US economic interests.

Immigration Is a Critical Tool for Future Economic Growth

Immigration policy, and its long-run effects, played a significant role in shaping past US growth. Since 1965, immigrants and their descendants have been responsible for an estimated 55 percent of total US population growth.¹ As a result, the foreign-born share of the US population has increased rapidly, from a historically low 5 percent in the 1970 Census to an estimated 14 percent today.² When their US-born children are included, immigrants and their families account for roughly 28 percent of the current US population.³ Without these past immigrants, the US would almost certainly be an economically weaker, less globally-competitive country.⁴ By one estimate, the direct contribution of foreign-born labor to US economic output in 2016 was around \$2 trillion.⁵ A joint 2018 study from Citigroup and Oxford University estimated that, had the US frozen immigration in 1990, depriving the economy of contributions from subsequent migrants, US economic growth would have been about 15 percentage points slower between 1990 and 2014, and the US economy would have averaged less than one percent annual GDP growth between 2011 and 2016.⁶

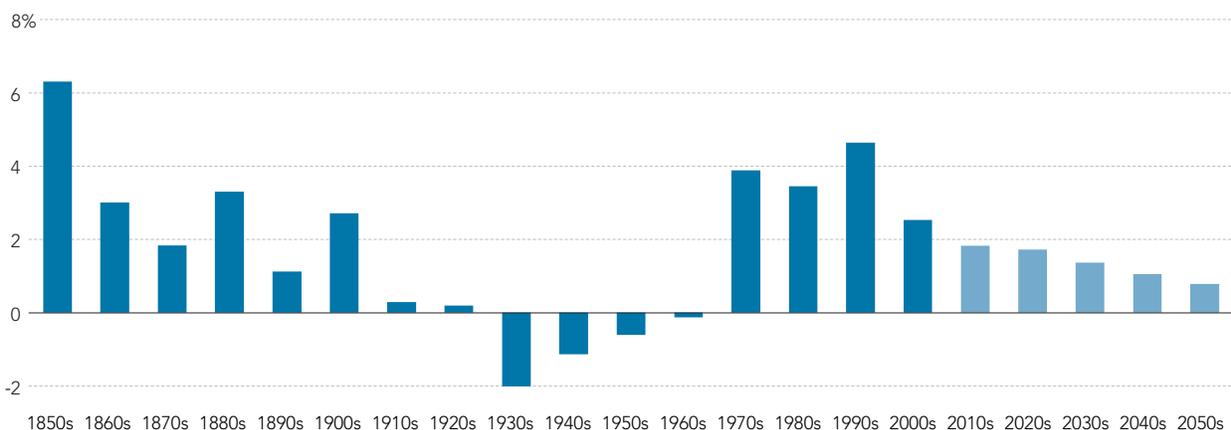
Immigration is an important contributor to national and regional population growth

If, as economist Kimberly Clausing describes, immigrants have been a “foundational part of our economic success” to date, then immigration’s importance to the strength and competitiveness of the US economy may be even greater in the future as the US appears headed for a period of extraordinarily slow population growth.⁸ Between 2020 and 2060, the Census Bureau projects that the native-born population of the US will increase by an average of only 0.4 percent per year.⁹ As a result, a 2015 Pew Research Center estimate found that new immigrants entering the country after 2015 and their descendants will be responsible for 88 percent of expected US population growth through 2065.¹⁰

Figure 1

Growth in the size of the foreign-born population is expected to continue slowing

Average annual change in net foreign-born population, by decade



Source: Migration Policy Institute and US Census Bureau 2014 National Projections

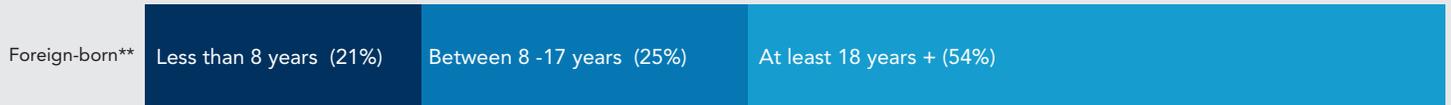
Foreign-born population in the United States

In 2017, there were an estimated:

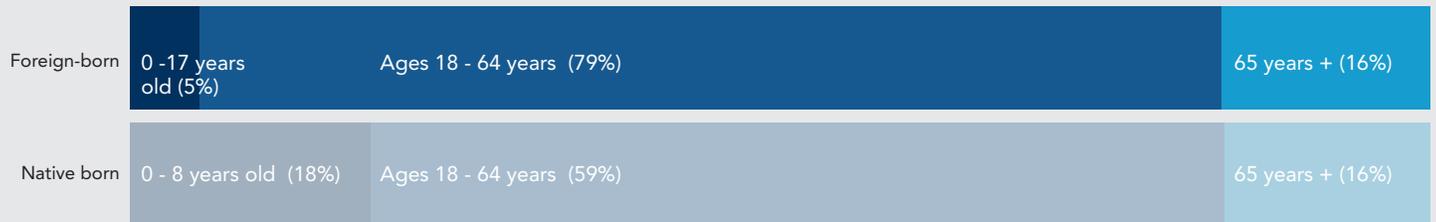
- 45 million foreign-born US residents, of whom 22 million were naturalized citizens
- 38 million native-born US residents with at least one foreign-born parent*



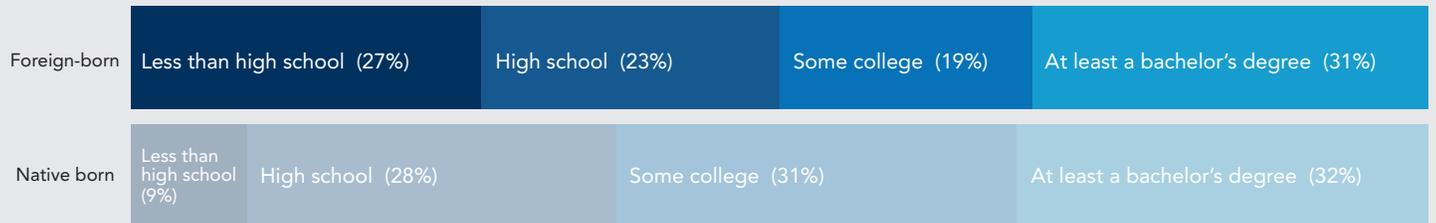
Time in country



Age



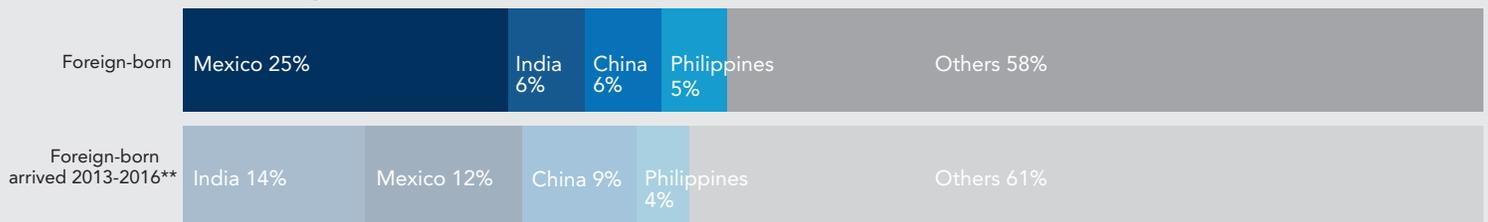
Education level, age 25 and above



Nearly half (47%) of immigrants who arrived between 2012 and 2017 had at least a four-year college degree



Country of birth



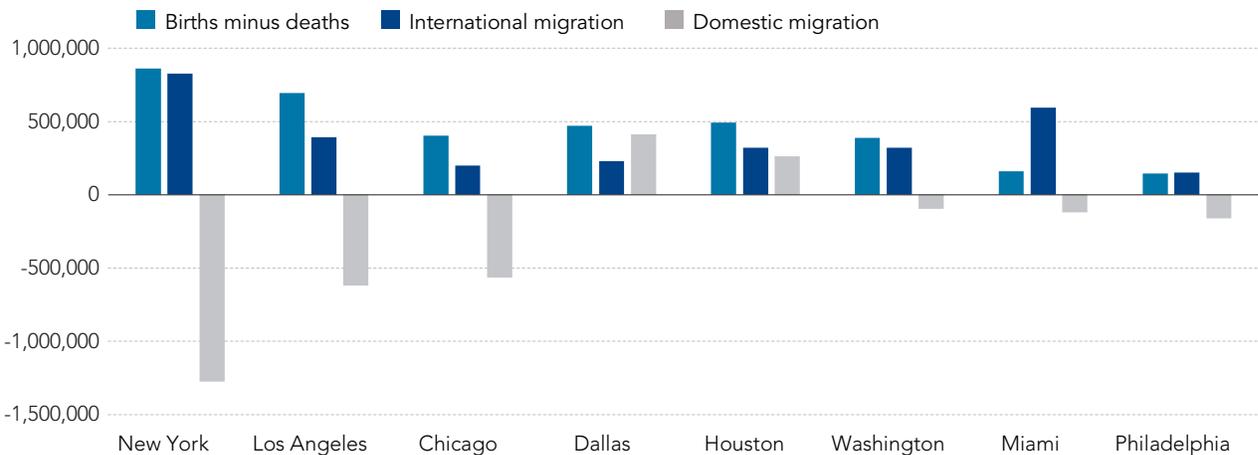
By 2030, immigration is expected to overtake “natural increase,” the net population change from births and deaths, as the largest driver of population growth in the US.¹¹ Yet, even with the recent increases in the share of the US population that is foreign-born, the growth of the foreign-born population itself has slowed significantly since the beginning of the 21st century and is expected to continue progressively slowing over the next three decades.¹²

Though immigrants to the US tend to cluster in a few locations, immigration has been an important part of recent US growth in many areas of the country. For instance, roughly 45 percent of immigrants in the US live in California, Texas, or New York; and nearly two-thirds of immigrants live in one of twenty different metro areas.¹³ According to Census Bureau estimates, between April 2010 and July of 2018, immigration was a major contributor to the growth of some of the US’s biggest and fastest growing cities—with positive net migration from abroad accounting for roughly 63 percent of the net population growth in the ten most populous metro areas and 38 percent of the growth in the ten metro areas with the greatest numeric population increase.¹⁴ However, immigrants have also been an important factor in reducing or preventing population loss in otherwise declining areas throughout the country. Over that same 2010 to 2018 period, the Census Bureau estimates that thirty-six metro areas and nine states would have lost population but for positive net migration from abroad.¹⁵ Even in the three states that declined in population over that period—Connecticut, Illinois, and West Virginia—immigration helped substantially limit population loss.¹⁶

Figure 2

Immigration is a significant contributor to growth in the US’s largest metro areas

Estimated net change in population in the eight largest Metropolitan Statistical Areas, by component, April 2010 to July 2018



Source: US Census Bureau, Population Division

Even if it is only occurring on a regional basis, population loss can contribute to a cycle of local economic decline. With a shrinking population, housing markets suffer, and state and local finances weaken as taxable income and assets shrink faster than the demand for government-funded services.¹⁷ Below a certain scale, some amenities and employers, including regional hospitals or institutes of higher learning, may struggle to survive or maintain quality. This trend may further motivate residents who can access opportunities elsewhere to leave the area, accelerating the cycle of decline.

Immigration is a driver of labor force expansion

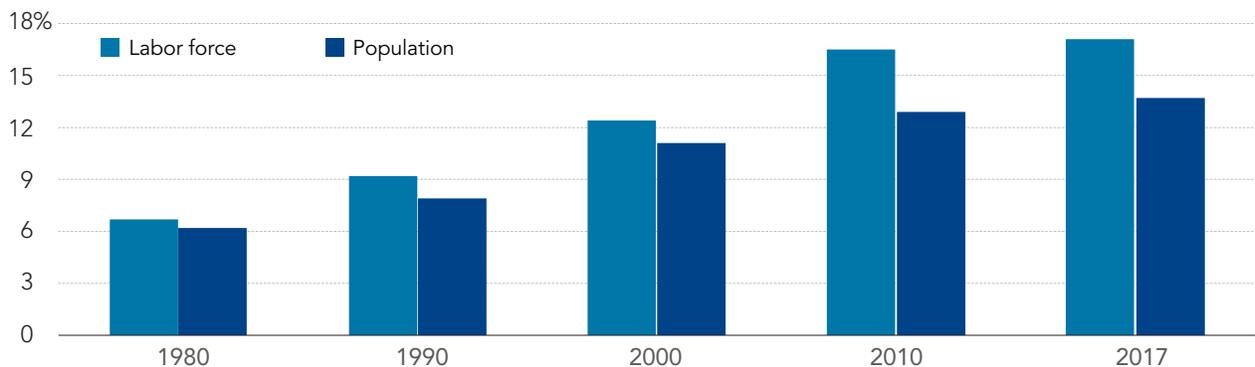
With the slowdown in population growth, the US labor force also has begun to grow more slowly—with potentially significant consequences for the US economy.¹⁸ Having more workers typically means more production, more wages, and more consumption. If, as projected, slowing labor force growth reduces overall economic growth in the future, the US will be even more dependent on uncertain productivity growth to drive economic gains and its competitive position globally.¹⁹ However, as labor force growth has slowed, the US workforce has gotten older, which may itself be contributing to reduced productivity growth.²⁰ One estimate suggests that the aging of the US workforce, reflected in an increased share of workers over 65, has reduced annual productivity growth by at least 0.2 percentage points over the past decade.²¹

In the recent past, immigration has had an outsized impact on labor force growth. Because the foreign-born population over the age of 16 is more heavily concentrated among ages where people more commonly work, foreign-born adults participate at higher rates in the labor force than the native-born population on average.²² In 2018, the labor force participation rate was roughly 66 percent for people born outside of the US and 62 percent for people born within the country.²³ As a result, the share of the civilian labor force not born in the US has grown faster than the share of the total population that is foreign-born.

Figure 3

Workers born outside of the US are a growing share of the workforce

Share of the civilian labor force and total population that is foreign-born



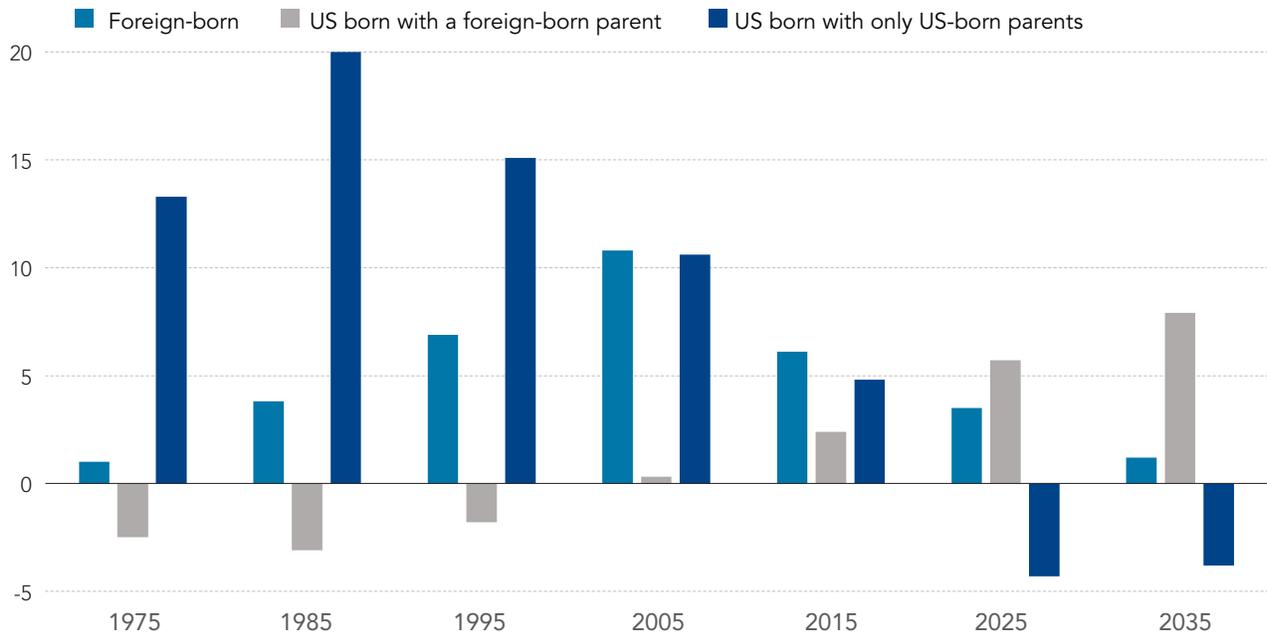
Source: Migration Policy Institute tabulation of data from the US Census Bureau

While immigrants were a large part of the growth of the US labor force since the 1970s, they are projected to make significantly smaller contributions over the next two decades unless there are changes in policy. Instead, an increase in the number of children of immigrants aging into the workforce will be the biggest driver of working-age population growth through 2035.²⁴ One sign of the long-run effect of immigration decisions is that, while people born outside the US make up roughly 14 percent of the total US population, more than a quarter of all children—18 million kids under age 18—have at least one foreign-born parent.²⁵ Given the current makeup of the US population, and relatively low birth rates among native born Americans over the past few decades, it is only the children of relatively recent immigrants that are staving off near-future absolute declines in the US labor force, at least nationally.

Figure 4

Future growth in the US workforce will likely be driven by children of recent immigrants

Net change in the working-age population over the previous ten years (in millions)



Source: Pew Research Center (Passel and Cohn, 2017)

At a local level, many Americans live in areas already suffering labor force decline. A 2019 analysis from Moody's Analytics and the Economic Innovation Group found that, between 2007 and 2017, roughly 46 percent of Americans lived in a county that experienced an overall decline in 25- to 54-year-old residents, the ages when adults are most likely to be in the workforce.²⁶

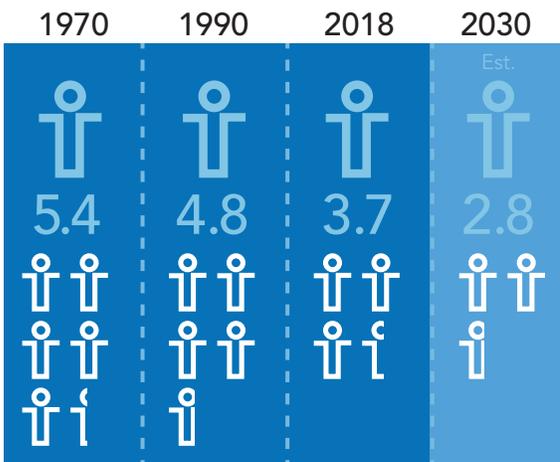
Immigration affects the nation's age structure

The decline in population and labor force growth is related to the overall aging of the country. While only roughly 12 percent of the US population was at least age 65 in 2000 and roughly 16 percent met that criteria in 2018, the US is expected to be one of 34 countries with more than a fifth of its population age 65 or older by 2030.²⁷ Given the US's large share of working-age immigrants and the disproportionate share of children under age 18 with at least one immigrant parent, immigration has clearly helped to reduce the pressure of the aging workforce on the US, and will continue to be an important factor in slowing the aging of the US population relative to many of its global competitors in the future.²⁸

However, despite the positive demographic contributions of immigrants, the aging of the US population and slowing growth of the labor force means that relatively fewer workers are available to support the increasing number of Americans eligible for old-age support programs like Social Security, Medicare, and Medicaid. The “dependency ratio” of typically retirement-age adults, ages 65 and older, to typically-working-age-adults, ages 20 to 64, has shifted from 1:5 in 1985 to less than 1:4 in 2018, and is expected to fall below 1:3 by 2030.²⁹ The implication of such a shift is that federal old-age programs are likely to require a greater share of available resources just to maintain current benefit levels. The increased competition for resources will also likely make it more difficult, at least politically, to finance other investments that could help make the US more globally competitive in the future, like education, research, and infrastructure.

US population is aging

Number of people ages 20 to 64 supporting one adult, age 65 and above



US population in millions

| Age Group | 1970 | 1990 | 2018 | 2030 (Est.) |
|------------------|------|------|------|-------------|
| Under 20 yrs old | 81 | 75 | 85 | 88 |
| 65 & over | 21 | 32 | 52 | 72 |

Source: 2019 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds.

Because older Americans tend to have lower taxable income and generate less local demand for goods and services—and employment—a greater concentration of elderly adults can also pose challenges to the finances of state and local governments, particularly those with higher levels of unfunded public pension liabilities.³⁰ In 2013, researchers at the Federal Reserve estimated that merely shifting the age composition of the US population in 2011 to match projections of the nation's 2030 age composition would have reduced state tax revenue by more than one percent.³¹ At the same time, the aging of state populations will likely be a key driver of increasing state expenditures. For example, the Office of the Actuary in the Centers for Medicare & Medicaid Services projects that Medicaid costs, which currently are estimated to account for a little less than one-sixth of all state government spending, will increase by an average of more than 5 percent annually over the next decade.³² Beyond direct fiscal consequences, an aging population can also pose challenges for the economy or business environment in affected regions. For instance, aging populations tend to drive less demand for residential or infrastructure investment, and states with older populations tend to have lower rates of new business formation.³³

The combined weight of these demographic pressures, at a time of increasing competition from abroad, threatens to sap US economic strength. But, just as immigration has been a source of relative American advantage in the past, more fully harnessing the potential benefits of immigration can be a critical tool to confront these challenges in the future—helping to deliver increasing and broadly shared prosperity for more American families and making the US more internationally competitive.

Increasing immigration levels would have many economic benefits

There are many reasons to think that targeted steps to expand and enhance US immigration is in the national interest. In the face of slowing labor force growth and an aging workforce, there are few near-term options for physically expanding the labor force; there are even fewer options for reliably boosting the size of the working-age population in the more distant future. In *Growing the American Workforce*, the Committee for Economic Development of The Conference Board (CED) laid out a series of policies that could make it easier and more attractive for potential workers already in the US to find work and remain working, boosting labor force participation and attachment.³⁴ At the same time, CED has advocated investing in high-quality education and training, beginning at the earliest ages, to ensure that all Americans can reach their full potential and enjoy successful careers.³⁵ Alongside such efforts, immigration policy is another tool available to maximize the contributions of the American workforce to economic growth. This is especially true in the long run, because, on average, the children of US immigrants tend to match other Americans in terms of educational outcomes, household income, poverty levels, and homeownership.³⁶

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Not everyone benefits from increased immigration, but most people do—as does the nation as a whole. Immigrants from a variety of skill and education backgrounds often have positive, complementary effects on other US workers. For instance, a larger presence of lower-education immigrants appears to raise the participation rate of highly educated women in the US workforce. This likely occurs because an increase in the number of migrants available and willing to perform cleaning and childcare services reduces the cost of such services and makes the switch to the paid workforce more cost-effective for the families that would potentially make use of them.³⁷ An increase in the supply of physical laborers may lead to a rise in managerial jobs. To the extent that immigrants reduce wages for some workers, they also help to lower consumer costs for millions of Americans and increase returns to capital.³⁸ The addition of more immigrants to the US, and the resulting increase in immigrants' purchasing power, also helps add to the size of the domestic consumer base, supporting other US businesses and jobs.

Immigration promotes innovation

Immigration also may be one of the most effective tools available to policymakers hoping to promote innovation. In their survey of the evidence supporting various public policy options for boosting innovation, researchers Nicholas Bloom, John Van Reenen, and Heidi Williams found that encouraging more high-skilled immigration was one of the few available actions where the positive evidence was of both of a high quality and a high conclusiveness.³⁹

Immigration also may be one of the most effective tools available to policymakers hoping to promote innovation.

Although it is difficult to directly measure the effect of immigration on productivity, several studies have found that highly educated immigrants have been significant contributors to US innovation. Illustratively, immigrants are over-represented among US-based Nobel Prize winners, members of the National Academy of Sciences and the National Academy of Engineering, and, according to one 2016 study, founders of billion-dollar start-up companies.⁴⁰ There are many well-known examples of foreign-born founders or cofounders of large US technology companies— for example, at Google (Sergey Brin), Tesla/SpaceX (Elon Musk), PayPal (Peter Thiel), Qualcomm (Andrew Viterbi), NVIDIA (Jensen Huang), Yahoo (Jerry Yang), and eBay (Pierre Omidyar).⁴¹ Although immigrants only made up 16 percent of the US workforce with at least a four-year degree at the time, a 2013 analysis found that nearly a quarter of workers in occupations closely linked to innovation and technology commercialization were born outside of the US.⁴² Analysis of Census Bureau data suggests that immigrants are disproportionately likely to be entrepreneurs or work at start-ups.⁴³

More concretely, owing at least partly to the fact that immigrants are disproportionately likely to hold degrees in science and engineering, college-educated immigrants secure patents at roughly twice the rate of native-born college graduates.⁴⁴ The presence of college-educated immigrants also appears to increase the rate at which US-born Americans secure patents, suggesting that highly educated immigrants help to spur native innovation.⁴⁵ Beyond patents, companies that employ a higher share of highly educated immigrants also tend to develop new products at a faster rate.⁴⁶

Immigrants may be particularly important for connecting the US to cutting-edge science and innovation occurring elsewhere in the world, benefiting US-based research efforts. Immigrants who secure patents in the US are more likely than native-born inventors to use foreign technologies, work with foreign researchers, and have their research used internationally.⁴⁷ By one estimate, immigrants were responsible for 30 percent of aggregate US innovation since 1976, despite making up only 16 percent of the identified inventors, primarily because of the positive, productivity-increasing effects that foreign-born innovators appear to have on their native-born counterparts.⁴⁸

Another study found that a one-percentage-point increase in the share of a US city's employment comprised of foreign-born workers in the fields of science, technology, engineering, and math (STEM) led to a significant boost in productivity, increasing average wages of native born workers without affecting their levels of employment. Extrapolating their findings to the whole of the US, the researchers estimated that inflows of foreign STEM workers may have been responsible for roughly 30 to 50 percent of aggregate American productivity growth between 1990 and 2010.⁴⁹

More difficult to measure but perhaps just as important for long-run US economic competitiveness and prosperity, adding the children of immigrants to America's future talent pool likely will be a large boon to future US innovation and productivity.⁵⁰ Steve Jobs (Apple) and Larry Ellison (Oracle) are two prominent recent examples of American entrepreneurs who were the children of at least one foreign-born parent.⁵¹ The estimated 39 million US-born children of immigrants currently living in the US are making, and will likely continue to make, significant contributions to American innovation and productivity.⁵²

...adding the children of immigrants to America's future talent pool likely will be a large boon to future US innovation and productivity.

Immigration strengthens long-run fiscal health

Increased immigration likely would be a boon to the long-run fiscal health of the US as well. Adding highly educated or trained immigrants to the workforce acts as a stimulus, injecting additional talent into the US's labor pool with little to no human capital costs. Despite concerns that immigrants might be a drain on public coffers as they utilize government-funded services and supports, the weight of evidence is that immigration has a net positive fiscal effect on combined public budgets, particularly when the US adds more highly educated immigrants.⁵³ In the short-run, the net fiscal benefits are strongly weighted to the federal government, since new immigrant workers pay federal taxes and receive few near-term benefits. By contrast, state and local budgets may be negatively affected, since educating additional children is expensive initially. State and local budgets may be particularly strained in regions with large populations of less educated, low-income immigrants.⁵⁴ However, since those children of immigrants go on to work and pay taxes themselves, even the state and local fiscal impact of immigration is net positive over a few generations.⁵⁵

One source of understanding about the potential federal fiscal impact of additional immigration is provided by debates around immigration reform in 2013 that culminated with S.744, the Border Security, Economic Opportunity, and Immigration Modernization Act, a Senate-passed immigration bill that was not ultimately acted on by the US House of Representatives. The Congressional Budget Office estimated that S.744 would have increased the size of the US labor force by roughly 5 percent over two decades and reduced federal deficits by nearly \$900 billion over that period.⁵⁶ The Social Security Administration's Office of the Chief Actuary estimated that S.744 would have reduced Social Security's existing long-run funding deficit by roughly 8 percent.⁵⁷

Immigration addresses labor market needs

Some other potential benefits of immigration are harder to trace or more speculative. For example, since they tend to initially immigrate to areas and occupations with high demand and are more likely than native-born counterparts to move, immigrants may play an important role in increasing the flexibility of the US workforce to more quickly meet the changing demands of employers.⁵⁸ Or consider the potential value of immigration in the context of caregiving jobs, which are currently disproportionately performed by immigrants and expected to grow rapidly in number over the next several decades. A 2017 study by Merrill Lynch predicted that the number of elder care recipients could increase as much as 84 percent between 2015 and 2050.⁵⁹ By one estimate, the share of all US workers employed in caregiving occupations is expected to increase from roughly 8 percent today to roughly 12 percent by 2050.⁶⁰ An increased concentration of immigrants in an area appears to improve the quality of nursing home care provided and preliminary research suggests that the availability of immigrant labor may augment the availability of elder care services, increasing the likelihood that older adults are able to age in place.⁶¹

Immigration could help address labor shortages

While CED believes that immigration policy should be designed with the nation's long-run economic interests in mind, it is also true that well-designed immigration policies can play a key role in addressing more near-term economic challenges. In its January 2020 report, *US Labor Shortages: Challenges & Solutions*,



The Conference Board has identified a historically tight, and tightening, US labor market for blue-collar and manual services occupations. The same demographic pressures driving slower population and workforce growth over the coming years are already having a particularly strong effect on the labor pool

for jobs currently performed primarily by non-college degree holders. That is because there is a continued strong demand for such workers in an environment where the number of workers without four-year college degrees is expected to decline, with retiring baby boomers outnumbering newly entering workers

without degrees. For "blue collar" employers surveyed by The Conference Board, these conditions have led to the highest recorded levels of perceived difficulty in hiring qualified workers and in the longest reported time required to fill positions. While labor shortages can be beneficial for workers able to command higher salaries, the risk that labor costs will squeeze smaller employers out of business or force consolidations can be alarming for employers in the industries affected. While faster real wage growth is likely to be good for productivity and prosperity, there is a concern that certain services, such as home health care, will ultimately go underprovided or become unaffordable if wage increases within the limits of a company's ability to remain profitable cannot induce enough workers to pursue those jobs. In industries or occupations acutely affected by labor shortages, where conditions can be expected to deteriorate further rather than improve over the next decade, immigration could be one of the few, and most effective, near-term solutions to help meet employer needs. Employers looking for more insights on present or looming labor shortages and alternative routes to addressing them, should consult *US Labor Shortages: Challenges & Solutions*.

The Bureau of Labor Statistics has estimated that on any given day in 2015-2016, an average of over 10 million adults were providing unpaid eldercare, spending an average of nearly three hours per day on care activities.⁶² Roughly 16 percent of the adult population of the US engages in unpaid elder care over the course of a year.⁶³ The direct impact of unpaid caregiving responsibilities on the workforce is expected to increase significantly in the years ahead. One 2019 study estimated that the annual forgone wages of unpaid family caregivers who would have otherwise chosen to work in the absence of their caregiving responsibilities would double between 2013 and 2050, reaching somewhere in the range of \$132-\$147 billion per year.⁶⁴ With paltry domestic labor force growth expected in the decades ahead, immigrants will likely be the key component in maintaining or increasing the availability, affordability, and quality of care seniors receive—improving quality of life for the seniors who receive the care, easing the burdens on their families, and helping US workers more fully participate in other sectors of the economy.

The economic drawbacks from increased immigration are limited

The principal economic concern with immigration is that, by increasing the supply of workers potentially willing to work for lower wages than their US counterparts, immigrants may reduce wages for some set of native workers with whom they most directly compete for jobs. However, the wage-lowering effect of immigration appears to be mostly concentrated on other foreign-born workers—previous immigrants that most closely resemble the new immigrants in terms of skills and education.⁶⁵ A 2016 National Academies panel review of literature estimated that additional immigration at a level equivalent to a 1 percent increase in the total US labor supply would be expected to reduce wages for native-born workers without high school degrees by between zero and 1 percent and slightly increase wages for native-born workers with more education, leading to a net positive impact for native-born workers generally.⁶⁶ Notably, there is little evidence that immigration affects the employment levels of native-born workers, though it may reduce the number of hours worked by US teenagers.⁶⁷

...the wage-lowering effect of immigration appears to be mostly concentrated on other foreign-born workers—previous immigrants that most closely resemble the new immigrants in terms of skills and education.

Even if the expected effects of additional immigration on native-born workers without a high school diploma are small, they are worth taking seriously since those workers have been particularly economically vulnerable, with lower rates of labor force participation, higher unemployment rates, and lower median earnings on average than their counterparts with more education.⁶⁸ However, because of higher average educational attainment over time, those native-born workers make up a relatively small, and shrinking, part of the labor force. Since 2000, the share of the native-born labor force over the age of 25 with less than a high school diploma has declined from roughly 7 percent to 4 percent, leaving a total of roughly 4.5 million such adults in 2018.⁶⁹

For workers who did not complete high school worried about competition with immigrants, it is cold comfort that the perceived negative effects of immigration are overstated or that, for many, the potential harms from immigration have been outweighed by more significant pressures related to changes in technology and globalization more broadly.⁷⁰ But from the national perspective, it shows why it may be relatively ineffective and counterproductive to gear immigration policy around helping such workers. Additionally, concerns about narrow impacts of immigration need to be weighed considering the uncertain alternatives to immigration. As globalization has allowed capital to move around the world more easily, a decision to restrict immigration may result in a company finding it more attractive to offshore jobs to other countries rather than necessarily reserving those jobs for existing American workers.⁷¹ Instead, the US should pursue immigration policies in the national interest—serving the goals of making the US more globally competitive and leading to increasing, and more broadly shared, prosperity—while pursuing other labor market policies, both public and private, to help workers with less educational attainment better achieve their career goals. The policy recommendations within CED’s 2019 reports, *Improving Noncollege Pathways to Skills and Successful Careers* and *Growing the American Workforce*, are two places to start, and would go a long way to helping those workers likely to be individually vulnerable to the potentially negative consequences of immigration.

...the US should pursue immigration policies in the national interest—serving the goals of making the US more globally competitive and leading to increasing, and more broadly shared, prosperity—while pursuing other labor market policies, both public and private, to help workers with less educational attainment better achieve their career goals.

Public Policy's Role in Attracting Global Talent

According to Harvard Business School Professor William Kerr, in the 21st century, human talent has become the “world’s most precious resource.”⁷² It is critical that the US recognizes that its employers are buyers in an increasingly crowded and competitive marketplace for global talent. While the number of migrants has rapidly risen in the 21st century, global migrants remain the exception rather than the rule.⁷³ An estimated 3 percent of the world’s population, and 5 percent of all college-educated workers, currently live in a country other than the one in which they were born.⁷⁴ In 2017, the nations of the world were vying to attract a share of the roughly 260 million migrants internationally, including about 30 million college-educated adults.⁷⁵

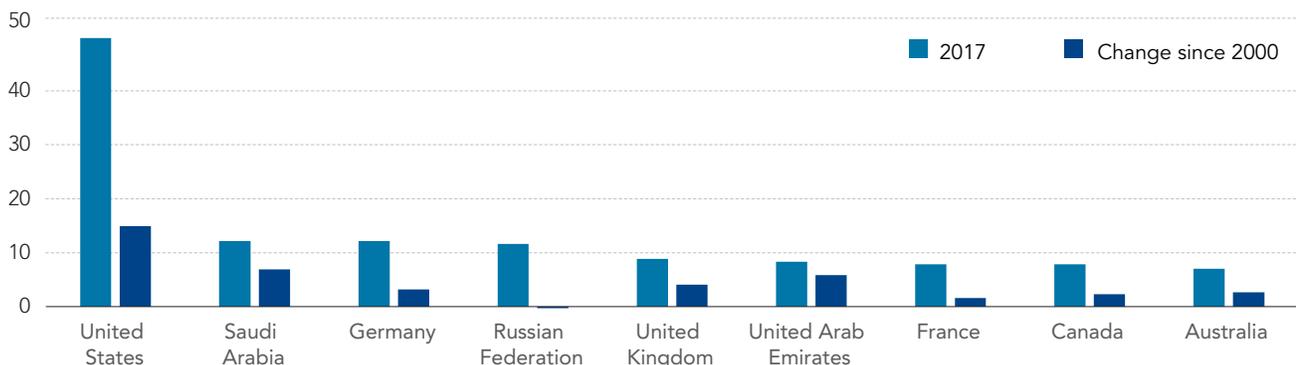
It is critical that the US recognizes that its employers are buyers in an increasingly crowded and competitive marketplace for global talent.

By most measures, the US has enjoyed the most success in attracting foreign talent, including among the most highly educated migrants. More than half of all global migrants reside in an OECD member country, and the US remains by far the largest destination country among advanced economies. Four in ten migrants to OECD countries lived in the US in 2015-2016.⁷⁶ According to United Nations (UN) data, as of 2017, the US still had more foreign-born residents than the next four largest destination countries combined.⁷⁷ Roughly one-third of all migrants worldwide with at least a year of post-secondary education live in the US.⁷⁸ Between 2001 and 2010, an estimated 57 percent of inventors living outside of their home country lived in the US.⁷⁹ The US is also the leading destination for international students, hosting nearly a quarter of all students studying abroad in 2017 who directly inject roughly \$37 billion in additional spending into the economy annually.⁸⁰

Figure 5

In 2017, the US hosted more foreign-born residents than any other four countries combined

International migrant stock, 2017 midpoint estimate, in millions



Source: United Nations, Department of Economics and Social Affairs, Population Division

Some of the US advantage in attracting large shares of talented immigrants is likely due to past openness that has helped create an enduring perception of the US as a welcoming land of opportunity. But, given the many advantages the US can offer to highly educated migrants, it is no surprise that immigration continues to be an American strength.⁸¹ With several of the world's leading companies, top research universities, and most innovative "clusters" in sectors ranging from technology to finance to art, the US offers some of the best opportunities for top global talent to profit from their skills and ideas. According to Forbes estimates, the United States is home to more than a quarter of the world's 2,000 largest public companies, and nearly half of the top 30.⁸² Even if such rankings are merely suggestive of widely held perceptions, it is notable that, on the most recent lists of top world universities from *US News and World Report* and *Times Higher Education*, the US is home to 20 and 17 of the top 25 institutions, respectively.⁸³

...given the many advantages the US can offer to highly educated migrants, it is no surprise that immigration continues to be an American strength.

The US also dominates in receipt of venture capital, which is credited with having played a large role in high-tech start-ups and innovation. According to research by Richard Florida and Ian Hathaway, roughly one-fifth of all venture capital investment globally between 2015 and 2017 went to the San Francisco and San Jose metropolitan areas.⁸⁴ Venture capital helps attract immigrants to the US and vice versa. According to a 2013 analysis by Stuart Anderson, roughly a third of venture-capital-backed companies in the US that made initial public stock offerings between 2006 and 2012 had at least one immigrant founder.⁸⁵

For many individuals, migration to the US presents an obvious pathway to enormous financial rewards. A 2013 study found that computer programmers moving to the US from India out-earned otherwise identical programmers, who applied but were not selected for US work visas, by an average of \$55,000 per year.⁸⁶ For the most in-demand or scarcest talents, the returns to immigrating to where the rewards are highest is likely to be even stronger.⁸⁷ Sports can provide a clear example, where it seems obvious that Giannis Antetokounmpo, the 2019 Most Valuable Player award winner in the National Basketball Association, is likely millions of dollars richer as a result of immigrating from Greece to the US in order to play in the world's most profitable professional basketball league.⁸⁸ Along the same lines, it is no surprise that the best soccer players from around the world are significantly more likely to play in the English Premier League rather than seek to come to the US, with the same holding true for cricketers and the Indian Premier League.⁸⁹

For many individuals, migration to the US presents an obvious pathway to enormous financial rewards.

However, just because the US continues to lead the world in attracting immigrants does not mean that the US should be complacent about its success or assume that its advantages will persist indefinitely. Further, given the opportunity that in-demand immigrants present for promoting US growth and enhancing US competitiveness in the future, every effort should be taken to ensure that US policy does not unnecessarily prevent the US from maximizing its possible benefit. However, the share of potential migrants who list the US as their top desired destination declined from 24 percent to 21 percent over the course of the past decade.⁹⁰ If the US begins to lose out on top immigrants, it may quickly find itself vulnerable to international competition in other dimensions as well. In 2019, Bloomberg analysts ranked the U.S. economy 8th on its overall innovation index measure, a five-spot decline from 2014, in large part owing to deficiencies in producing domestic graduates in science and engineering.⁹¹

Many countries are taking steps to increase their appeal to top global migrants

As the potential pool of talent has grown worldwide, so have international efforts to attract immigrants and share in the benefits they provide, making US efforts to recruit the best available talent increasingly difficult. Overall, viewed in five-year intervals, the United States experienced a smaller net increase in immigration over 2010-2015 than in any comparable period since 1990-1995.⁹² While, as noted, the US hosts roughly four in ten highly educated immigrants currently living in OECD countries, it historically used to receive closer to half of such immigrants.⁹³ The states of the European Union (EU) doubled their international student population between 2000 and 2012, and now collectively host more international students than the US.⁹⁴ The US share of international students has declined from 28 percent in 2001 to 24 percent in 2017, and is expected to drop further. Preliminary data show that new international student enrollment in the US has fallen in each of the last three years after decades of nearly uninterrupted and rapid growth.⁹⁵ On surveys, almost nine out of ten US institutions of higher education with international student enrollment declines cited the US visa application process, including delays and denials, as a factor contributing to their falling enrollment—up from roughly one in three institutions that cited the visa application process as a factor in the fall of 2016.⁹⁶ But even holding US policy aside, roughly six in ten institutions credited increased competition from universities in other countries as a significant factor affecting their declining international student enrollment, up from less than one in five institutions who identified international competition as a factor in 2016.⁹⁷ While the US is still the destination for roughly half of global venture capital invested annually, and a rapidly increasing amount of venture capital dollars, its share of venture capital dollars has steadily declined from the mid-1990s, when the US was home to well over 90 percent of such investments.⁹⁸

More countries have taken proactive steps to capture the benefits of immigration, often pairing their efforts to attract or retain highly educated talent with increased investments in technology, science, and education, or other initiatives to make their economies more innovation-friendly.⁹⁹ According to UN data, the proportion of countries reporting that they had policies to increase the immigration of highly educated workers roughly doubled between 2005 and 2015, from 22 percent to 44 percent, with governments in more developed regions especially likely to have such policies.¹⁰⁰

Over the past decade, Japan has made significant investments to “enhance the international compatibility” of some of its top universities in an effort to increase international student enrollment.¹⁰¹ In 2014, Canada set a goal to roughly double its 2011 international student population within a decade, a benchmark it surpassed by 2017.¹⁰²

...the proportion of countries reporting that they had policies to increase the immigration of highly educated workers roughly doubled between 2005 and 2015...

Since 2010, more than 30 countries have launched or reformed startup visa programs, particularly aimed at attracting early-career entrepreneurs, in an effort to capture more innovative talent and capital.¹⁰³ Between 2015 and 2017, nearly a quarter of global venture capital was invested in China and roughly a fifth was invested in France, Germany, India, Israel, Singapore, Sweden, and the United Kingdom, increasing the likelihood that the next cutting-edge or commercial breakthrough will occur outside the US.¹⁰⁴

Perhaps ironically, the growth in the supply of global talent may also help further erode the US’s relative advantages in the future. The number of adults, ages 25 to 64, with at least some post-secondary education is projected to nearly double between 2010 and 2035.¹⁰⁵ As the number of college-educated workers grows worldwide, the opportunities for talented entrepreneurs and skilled workers to cluster and profit in places other than the US, including the countries of their birth, will likely increase.

US policies hurt the nation’s relative attractiveness to top global migrants

If the US faces increasing competition in attracting top talent, it is worth examining the relative incentives and inducements that other advanced economies offer as a matter of policy to help advantage their employers. Such a review could help determine the extent to which US policy could be changed to better position US employers seeking to attract their share of top talent.

In a May 2019 attempt to quantify the relative attractiveness of member countries to talented immigrants, the OECD looked separately at the attractiveness of different nations for three different categories of highly sought after migrants: international university students, entrepreneurs, and workers with at least a master’s degree.¹⁰⁶ When rating the attractiveness of countries on the basis of characteristics like the quality of opportunity presented; income and tax burdens; the quality of life, including for family members; and a migrants’ future prospects in their new homes, the US only made the top five with regards to attractiveness for students.¹⁰⁷

Unsurprisingly, given that the US is one of the world’s richest and strongest economies, the OECD scored it as one of the most attractive migration destinations for students, highly educated workers, and entrepreneurs before taking into account the effect of migration policies.¹⁰⁸ In other words, given the relatively high quality of work opportunities, a top skill environment, high pay, and a high quality of life for highly educated adults, all else equal, talented immigrants should see the US as a top destination.

Policy differences affecting where in-demand migrants settle



United States

Selection method for "high skilled" migrant workers

Renewable three-year temporary H-1B work visas for all minimally eligible applicants with an employer sponsor offered via lottery once a year



Time to permanent residence for workers

H-1B visa holders may apply for permanent residence with a willing employer sponsor at any time; time to permanent residence varies depending on country of origin, with H-1B visa holders from China and India facing multi-year waits



Inclusion of spouse in workforce

Spouse requires separate work authorization



Path to work visas for students graduating from domestic universities

Optional Practical Training (OPT): Eligible international students granted up to 12 months of work authorization, or up to 36 months if a STEM degree holder, to work in their field of study – cannot be unemployed for more than a total of 90 days during the OPT period



Australia

From pool of interested migrants, permanent residence typically offered to highest ranking applicants based on points-based selection criteria (i.e., age, work experience, offer of employment, skills)...



General Skilled Migration
...monthly

Canada



Federal Skilled Worker
...every two weeks

New Zealand



Skilled Migrant Category
...every two weeks

United Kingdom



Employer-sponsored migrants meeting at least the minimum score on the points-based system are offered a temporary General work ("Tier 2") visa with an initial offer of up to 3 years, extendable for up to 6 years if meeting certain conditions

European Union (Except Denmark, Ireland & UK)



All non-EU resident migrants with college degrees and qualifying offers of employment are eligible for a Blue Card temporary work visa of, initially, up to 4 years

Australia, Canada, and New Zealand



Permanent residence offered with work authorization

Germany



Blue Card holders achieve permanent residence in 3 years or less

United Kingdom



Permanent residence granted after 5 years of legal residence with a work permit

Canada



Spouse of a Federal Skilled Worker visa holder is authorized to work; applicants for the Federal Skilled Worker program receive bonus points if their spouse is highly educated

Germany



Spouses of EU Blue Card holders are authorized to work without limitations

Australia



The spouses of employer-sponsored Temporary Skill Shortage visa holders are allowed to work

Canada



"Open" work permits: 3-year work permit after graduation

Germany



Job seeker visa: 6 months to find employment post-graduation

Denmark, Ireland, and Japan



Temporary permits that are several months long to search for eligible work – then temporary work permits lasting between 2 to 5 years

However, according to the OECD analysis, the US trails other countries with which it competes for the most in-demand foreign migrants along a few key dimensions. In the estimation of the OECD, few advanced economies so severely limit initial access to the country relative to interest or make it as comparatively difficult for temporary migrants—whether students, employees, or entrepreneurs—to transition to a permanent status. Across immigration statuses, as a percentage of the population, the US has one of the smallest annual inflows of permanent migrants among OECD members.¹⁰⁹ As a result, the OECD judges the US to be in the bottom quartile of OECD countries when it comes to talented immigrants' future prospects.¹¹⁰

...few advanced economies so severely limit initial access to the country relative to interest or make it as comparatively difficult for temporary migrants—whether students, employees, or entrepreneurs—to transition to a permanent status.

The H-1B visa program has many relative drawbacks for recruiting highly trained global talent

The principal route for highly educated workers to come to the US is the H-1B visa, an employer-sponsored temporary work visa typically limited to college graduates with highly specialized knowledge. Since the demand for H-1B visas has typically outstripped the statutorily capped supply in recent years, the US has operated a once-a-year lottery to distribute available visas among qualified applicants. For 2020, the US received over 200,000 employer-sponsored applications from immigrants seeking one of its annually available 85,000 H-1B temporary work visas.¹¹¹ Because of H-1B visa lottery rules, employers must typically wait a minimum of six months between a decision to sponsor an H-1B visa application and an approved start date for a lottery-winning worker, creating significant delays and uncertainty for foreign workers evaluating offers in competing locations.¹¹²

H-1B visas are initially valid for up to three years but can typically be renewed for an additional three. An H-1B visa holder may apply for a permanent employer-based green card, granting lawful permanent resident (LPR) status, so long as they meet the necessary requirements, but are not given any special consideration due to their H-1B visa status. A 2016 analysis by the Bipartisan Policy Center estimated that a little more than a third of immigrants receiving LPR status in employment-based immigration categories between 2010 and 2014 had previously been H-1B visa holders.¹¹³

While applying for an employment-based green card, H-1B visa holders may continue to renew their H-1B visa annually until they receive a decision. However, only about roughly 140,000 adults received permanent residence due to employment-based preferences annually from 2015 to 2017.¹¹⁴ Due to legal limits on the share of employment-based green cards that may be issued to immigrants from any single nationality annually, H-1B visa holders from India and China eligible to apply for permanent residence in the US remain in limbo for years.¹¹⁵

In 2018, Indian immigrants receiving employment-based green cards had typically waited at least ten years for approval. If current rules are maintained, the wait time for college-educated applicants from India who newly apply for an employment-based green card is expected to be significantly longer.¹¹⁶

A 2018 analysis by the Congressional Research Service estimated the backlog for otherwise-approved immigrants currently in the US awaiting an employment-based green card, including but not limited to H-1B visa holders, was over 800,000 people long.¹¹⁷ Those would-be permanent residents were waiting in line with more than 100,000 additional employment-based green card applicants living abroad.

In contrast to the US experience, most countries try to remove unpredictability and delay from the migration experience of interested migrants who match their recruiting interests. Point-based ranking systems in countries like Australia, Canada, and the United Kingdom make it easy for in-demand international migrants to determine if they are likely to be offered entry based on their “score” on relatively transparent entry criteria. Since the highest scoring migrants on a country’s entry criteria move to the front of the line, the most desired immigrants will rarely face the risk that they will not obtain a visa due to quota limitations. Many advanced economies avoid the use of quotas entirely, deeming all immigrants who have sufficiently desirable skills and characteristics—reflected by achieving a high enough score—eligible to migrate.

...most countries try to remove unpredictability and delay from the migration experience of interested migrants who match their recruiting interests.

Since 2009, the member states of the EU—except for Denmark, Ireland and the United Kingdom—have worked to implement a “Blue Card” directive that is meant to establish a quick and uniform pathway for high-income, high-education migrants from outside of the EU to come to Europe to work.¹¹⁸ Applicants that meet the minimum requirement thresholds and have job offers are issued a three-year temporary-but-renewable work permit that allows them to pursue employment across the EU. In contrast to the US, where a job offer is often a requirement before entering the country, countries like Germany and Austria offer temporary six-month visas to job seekers with a certain level of education and experience requirements to make it easy for in-demand migrants to enter the country and search for work.

While the H-1B program has a functionally six-month minimum wait time—between when a visa application is submitted and when the worker may enter the US to work—Canada has instituted a “Global Skills Strategy” initiative for in-demand, high-income or advanced degree workers that aims to process 80 percent of eligible temporary work visas within two weeks.¹¹⁹ With this initiative, combined with frequent allotments of visas, highly skilled migrants to Canada can begin working within a small fraction of the time it would take in the US, advantaging Canadian employers who want to make use of international talent and incentivizing multinational employers to locate more workers there.

Canada also outdoes the US when it comes to the length of available visas. As of September 2019, the Canadian government estimated that qualified applicants in its skilled federal workers program, which selects interested migrants based on work experience and skills, could receive permanent residence in an average of six months.¹²⁰ In other words, even if a talented foreign worker were guaranteed to win the H-1B visa lottery—in reality an uncertainty—she would likely be able to secure a permanent spot in Canada faster than she could secure a temporary spot in the US. In Germany, a worker who maintains employment under the conditions set out for acquiring a temporary Blue-Card work permit typically becomes eligible for permanent residence after less than three years, and sooner if he or she has significant German language skills.¹²¹

Treatment of family members is also a factor in the competition to attract in-demand migrants. The US does allow spouses and children to accompany H-1B workers to the US, although typically they are not allowed to work unless they secure a separate employment authorization on their own merits.¹²² By contrast, Canada provides work permits to spouses of immigrants in its Global Skills Strategy initiative. Under Canada's skilled federal worker program, having a spouse with desirable skills and characteristics can boost the score of both partners, increasing the likelihood that both will be admitted to work in the country.¹²³ Many countries match US policy, allowing immediate family members to migrate with a work-permitted spouse or parent but not initially allowing these family members to work. However, since most countries do allow a partner to work once his or her spouse gains permanent legal residence status, the US approach is relatively less generous, since the time to permanent residence is both shorter and clearer in places like the EU and Australia.

The US provides relatively restrictive work opportunities for its foreign graduates

Countries also use post-graduation work policies to attract and retain foreign students with in-demand skills. Except for STEM graduates, most students graduating from US universities can work no more than a year in the US before they must either secure a work visa or leave the country. Rather than setting such strict limits, many countries—like Denmark, Germany, Ireland, and Japan—provide students with temporary permits that are good for several months to allow them to remain in the country and search for work that would qualify them for longer, renewable temporary work permits. In Canada, graduating foreign students can qualify for up to a three-year work permit, with the idea that Canadian work experience will help increase the odds that they will subsequently qualify for permanent residence.

If the world's leading developed economies continue to adopt more generous immigration policies to attract the most highly educated or in-demand migrants and US policy inaction continues, then US employers may find it increasingly difficult to land top foreign talent.

Growing opportunities in China and India limit the US's ability to recruit the best global migrants

The US's international talent comes from all over the world, including a mix of richer and poorer economies. Given China and India's combined relative size—with roughly 35 percent of the world's population—their growing number of college-ready students and college-educated graduates, and the scale of earning opportunities typically available in the US compared to back home, it makes sense that Chinese and Indian migrants would make up a large share of all students and workers seeking to come to the US.¹²⁴ Between 1990 and 2015, the combined share of Chinese and Indian migrants among those entering the US in a given year grew from 4 percent to 14 percent.¹²⁵ In 2018, 85 percent of petitioners for H-1B visas and nearly half of the foreign students in the US came from India or China.¹²⁶ However, this concentration poses a medium-term challenge for the US. If China and India continue to experience rapid economic development, the opportunities for highly educated workers born there are also likely to improve, making it more difficult to attract these countries' top talent to the US relatively or forcing US employers to look elsewhere for highly qualified workers.

In 2018, 85 percent of petitioners for H-1B visas and nearly half of the foreign students in the US came from India or China.

Following their own national interests, India and China are trying to entice in-demand highly educated workers to remain home or to return from abroad. For example, in recent decades, China has tried to make it easier for in-demand Chinese migrants to return temporarily or permanently to work in China and has created financial incentives to attract Chinese-born experts working abroad.¹²⁷ In 2005, India created an Overseas Citizenship of India (OCI) program targeted at former Indian citizens living elsewhere—and their children and grandchildren—which conveys rights and privileges that make it easier to return to India to work on a temporary or permanent basis.¹²⁸ China has also boosted its annual spending on research and development—according to OECD estimates, by roughly 1,400 percent since 2000—and has rapidly closed the gap with the US, at least in terms of dollars invested, since 2008.¹²⁹

There are signs that China and India may be experiencing some success in retaining their home-grown talent. Whether as a result of rising economic opportunity or new policies, in recent years, the increase in the number of Chinese students graduating abroad who chose to return to China outpaced the growth of Chinese students leaving to study in a foreign country.¹³⁰ Similarly, between 2006 and 2017, the share of Indian and Chinese graduates of US doctoral programs in science and engineering who reported definite plans to stay in the US fell by roughly 9 and 8 percentage points, respectively.¹³¹ Between 2003 and 2017, the share of such graduates who remained in the US for at least five years also declined.¹³²

Over time, other countries will produce an increasing number of college-ready or highly educated graduates who will help continue to grow the pool of in-demand talent attracted to work or education opportunities in the US. This will be true even if the numbers of top global migrants coming from India or China were to decline.¹³³ But, given the large shares of global migrants coming from China and India currently, changes in the relative attractiveness of opportunities in those two countries versus in the US will necessitate reducing unnecessary barriers or burdens that might make the US less attractive to the world's best available talent.

Attracting global talent is good for the US...and the world

Better positioning the US to attract the most in-demand global migrants is clearly in the US's national interest. But it would also likely increase the US's contribution to global prosperity as well.

As highlighted in a 2018 World Bank report on global migration, migration can help individuals make the most of their productive potential and thereby be "the most effective way to reduce poverty and share prosperity" globally. Under a hypothetical example, moving 100 million young people from UN-defined "developing countries" to more advanced economies would produce annual income gains of roughly \$1.4 trillion globally.¹³⁴ In addition to income gains, migrants from lower income countries often receive access to higher quality education, training and health care services as well.¹³⁵ Given the size of the US economy, and its interconnectedness with the wider world, faster US growth resulting from better immigration policies would also likely provide a boost to the global economy.¹³⁶

There are reasons to be concerned that the loss of too much top talent, often described as "brain drain," could hurt the growth and stability of poorer countries from which migrants often depart—an outcome that is unlikely to be in the US national interest. However, in practice, migration appears to be broadly beneficial to émigrés' origin countries as well. Global migrants often send remittances to family in their home countries or make investments in domestic enterprises. According to World Bank estimates, annual transfers from migrants to low- and middle-income countries are expected to be more than \$550 billion in 2019, with the US the top originating source of such payments.¹³⁷ For these receiving countries, the annual value of global remittances could potentially pass foreign-direct investment this year.¹³⁸ Migration can increase trade in goods and services as well.¹³⁹

Even when considering the loss of a low-income country's most highly educated science and technology talent, is it not clear the level at which, or degree to which, emigration would ultimately be harmful to the country. The loss of domestic innovation capacity is likely at least partially compensated by increased access to innovative knowledge from abroad.¹⁴⁰ To the degree that émigrés receive education and training abroad that is not available domestically and subsequently return to their home countries, they can eventually be a positive source of high-skilled talent as well.¹⁴¹

Policy Solutions

Improve the H-1B visa program

The US needs to take rapid action to strengthen its competitive position for the most in-demand international workers and graduates. Even if there is delay or additional debate needed before policymakers arrive at consensus on more substantial reforms of the way the US attracts, admits, and integrates in-demand immigrants into the nation more permanently, the US should pursue immediate improvements to the H-1B visa program.

Improving the H-1B visa program: Summary of recommended reforms

The US should take several steps to immediately strengthen the H-1B visa program to boost the US's already high level of attractiveness to the most in-demand international workers and graduates and make it quicker and easier for employers to use that available talent.

- 1 Shift to more frequent allocations of H-1B visas so that employers can sponsor foreign workers when they are needed and available rather than facing a narrow once-a-year window for visa approval and entry.
- 2 Limit petitioning for H-1B visas to within a few months of an employee's planned start date and speed adjudication of selected petitions to sharply reduce the time between when an H-1B visa petition is selected and when foreign workers can begin their new jobs.
- 3 Replace the random H-1B visa lottery with a modified wage-ranking approach—with adjustments for geography, cost-of-living, or other characteristics—in order to distribute visas to the most in-demand employees.
- 4 Modestly adjust annual limits on new H-1B visas based on the prior year's demand to make the visa cap at least minimally responsive to labor market demand.

After three years and a successful initial renewal of their H-1B visa:

- 5 Allow H-1B visa employees to apply for permanent residence without an employer sponsor to empower visa holders who have demonstrated workplace success.
- 6 Temporarily authorize the spouses of H-1B visa holders to work to make it easier for their families to more fully integrate into life in the US during the wait for permanent residence status.

Fix the H-1B visa application and approval process

Currently, when a lottery is held due to high demand for H-1B visas, the US system creates an absurd timing reality for US employers vying for top talent with international competitors. Practically speaking, new H-1B visas are awarded only in April, when applications for the beginning of the next fiscal year—starting October 1st—are first accepted. Since applications are not allowed until six months before a planned start date, and all available visas are allocated from the earliest possible period, employers must be willing to incur a full six-month lag between application and the employee working in the US, and that employee can only begin US-based work in the month of October. The result is that a US business leader who decides in May of a given year to pursue bringing over an H-1B visa employee in order to fill a targeted need would have to wait until the following April to find out whether that applicant’s petition would be allowed (if the worker wins the lottery). They would then have to wait another six months before the employee could begin working. From the employee side, for whatever period prior to the April lottery that the worker is in conversations with the employer for a US-based role, she will not know if she will ultimately be allowed to move to the US for work.

Given the long road to securing a worker through the H-1B visa program, the current system is weighted in favor of employers who can afford to be either very patient or very creative, or who have relatively predictable labor demands. For those reasons, it is perhaps unsurprising that large firms are significantly more likely to employ H-1B visa employees.¹⁴² A 2019 study found that, compared to domestic graduates, a smaller share of foreign graduates of US PhD programs in science and technology were employed by start-ups, a discrepancy the researchers attributed to US visa policy.¹⁴³ A shorter process may make it more viable for a wider variety of employers to take advantage of international talent.

Between lottery uncertainty and delayed start dates, US policy is putting employers at a disadvantage for landing in-demand workers with offers in multiple countries, even if they are offering the applicant her preferred role or the US is her preferred destination. But policymakers could reduce this burden. Shifting to more frequent allotments of H-1B visas—from a one-time annual allotment of all available visas to quarterly or monthly allotments—would allow employers to sponsor H-1B visa workers shortly after they determine they need them rather than waiting up to 12 months for the next lottery to occur.¹⁴⁴

Other countries have shown that more frequent drawings are feasible. For instance, qualified workers who register interest in moving to Canada can join the potential pool for permanent immigration on a rolling basis. All adults in the permanent residence pool are ranked based on characteristics like education, language fluency, and work experience, and offers of permanent residence are issued to the top-scoring immigrants in the pool every two weeks.¹⁴⁵

The usefulness of more frequent H-1B visa allotment would drive faster processing of post-lottery H-1B visa petitions. As of September 2019, the US Citizenship and Immigration Services (USCIS) estimated that it was processing H-1B visas issued to workers coming from abroad in two to nine months depending on which service center was processing the application.¹⁴⁶ In the past, Congress has indicated a goal of processing all H-1B petitions within 30 days.¹⁴⁷ USCIS currently offers expedited, three-week H-1B visa processing if the employer pays an additional fee, suggesting that faster times could be accomplished with additional resources. Since existing lottery rules essentially force employers to apply a minimum of six months ahead of an employee's start date to have any chance of securing a visa, achieving faster processing times are not a current priority given limited resources.

However, with more frequent allotments, the salience of faster processing times, and their contribution to the already high attractiveness of US-based employment offers to foreign workers, will sharply increase. Limiting petitioning for visa allotment to a range of dates closer to an employee's planned start, rather than six months ahead, could also help reduce the time between offers of employment, decisions on eligibility and visa availability, and the start of productive contributions by H-1B visa employees. Employers' incentives for applying for the allocation occurring for the beginning of the fiscal year would also be greatly reduced, lessening some of the burden on USCIS to process all H-1B visas petitions simultaneously.

While a lottery system to allocate a limited number of visas may seem fair, it is not clear that it is in our national interest. For example, when employers sponsor multiple applicants, each one has an equal chance of admission even if the employer prefers some over others. Instead of prioritizing their most desired candidates, employers are incentivized to petition for H-1B visas for all acceptable candidates to increase the odds that at least one of their potential foreign hires can secure a visa.

A firm that identifies a single highly desired international candidate will also be at a relative disadvantage compared to one that sponsors several candidates that it views as interchangeable. Since each potential hire has an equal likelihood of selection, a firm that packs the lottery with several candidates increases its share of the limited H-1B visas available compared to more selective employers or smaller employers looking to fill fewer total spots. More than 10 percent of the workers approved for a new initial H-1B visa in fiscal year 2018 were employed by just ten firms.¹⁴⁸

An alternative approach to a lottery system would be to distribute H-1B visas based on eligible applicants' offered salaries, with higher-paid workers receiving priority. Even if salary is a flawed proxy for the relative economic productivity of, or demand for, particular immigrants, it is likely to be a better way to target which employees are most in demand than a lottery. Giving priority to the highest paid H-1B applicants should help to partially alleviate the concern that H-1B visas are being used to put downward pressure on the salaries of American workers competing for the same jobs.¹⁴⁹ Wage ranking would also help make distribution of H-1B visas more predictable for employers who will be able to see salary levels for past H-1B visa holders and gauge the likelihood of a successful application.

Wage ranking approaches have been supported by researchers like William Kerr and Chad Sparber, and, while it has not been much discussed in recent political debates over changes to H-1B visas, it could have bipartisan appeal.¹⁵⁰ In 2017, a Democratic congresswoman proposed a bill that would have used wage ranking, and Trump administration officials have reportedly expressed openness to wage ranking in the past.¹⁵¹ Critics worry that it will result in an even higher concentration of H-1B visa holders ending up in areas with high costs of living where salaries are higher. Another concern is that certain occupations may make outsized contributions to the economy or society relative to their salary and would be disadvantaged by wage ranking.¹⁵² These outcomes could be reduced or avoided by adjusting wage ranking based on local conditions, putting geographical maximums in place, or carving out minimum allotments for particular types of work, whether for occupations facing labor shortages, like nurses, or for low-paid, equity-compensated entrepreneurs.

While sponsoring an H-1B application can already be expensive for employers, with thousands of dollars in required fees, the continuing high demand suggests that many employers would be willing to pay even more for access to high skilled foreign talent. If policy choices mean that H-1B visas are going to remain scarce relative to demand, policymakers could consider “auctioning” access.¹⁵³ Rather than randomly distributing the valuable opportunity to hire a foreign worker, that benefit could be monetized to better serve the national interest.

As an alternative to wage ranking, having employers bid for visas for eligible sponsored employees would potentially have three positive effects relative to status quo. First, an auction would help to ensure that the limited number of available visas went to the employers who valued them the most. Second, by raising the per capita price of securing H-1B visa talent, it would lower the relative cost of hiring an American worker for the same job. This would help reduce concerns that H-1B visa workers were being used as cost-saving substitutes for existing American workers. Third, the auction fees earned could be used to improve quality and speed of immigration system services, making the US more attractive to in-demand foreign talent. David Kreutzer has argued that implementing an auction system would have a secondary benefit of helping policymakers to identify the market value of H-1B visas and better inform future policy decisions as a result.¹⁵⁴ CED proposed instituting a quarterly auction of H-1B visas to meet surplus demand in its 2001 immigration reform proposal.¹⁵⁵

Another way to reduce the uncertainty of H-1B visa allocation would be to increase the provision of visas to meet demand. Since 2005, the number of initial H-1B visas made available to new foreign workers each year has remained essentially flat at 85,000.¹⁵⁶ Given that the application cap has been reached every year for a decade and a half, and that visas have had to be distributed by lottery every fiscal year since 2014, a number of past reform proposals—from places as ideologically diverse as the conservative-leaning Heritage Foundation and the liberal-leaning Center For American Progress—have called for adjustments to the H-1B visa cap based on demand or underlying economic conditions.¹⁵⁷

Most analysts agree that Congress should not be relied upon to adjust the cap annually and that the current cap is arbitrarily low. But Congress need not wait to perfect an adjustment mechanism or reach compromise on a new level for available H-1B visas before acting. It could institute a simple demand-responsive mechanism while continuing to debate the right path forward. For instance, Congress could allow automatic increases to the H-1B visa allotment by 5,000 in the year following any fiscal year in which the existing allotment was exhausted. A symmetrical reduction could kick in for any year in which the prior year's allotment was not fully tapped. Since such minor annual increases or decreases should be relatively uncontroversial, this would avoid large year-to-year swings in available visas, and would give Congress plenty of opportunity to intervene should the total visa allotment reach a level that seems out of keeping with national interest. Had even that modest adjustment mechanism been in place since 2005, it is likely that tens of thousands of additional highly educated immigrants would not have been prevented from coming to the US to work in recent years.

While each of these changes would be relatively modest in isolation, instituting more frequent H-1B visa allotments, shorter processing times, wage ranking of eligible applicants, and a modest visa cap adjustment mechanism would help strengthen the competitiveness of the H-1B visa program, making it a more predictable process for employers and increasing their ability to reliably secure the most in-demand foreign workers.

Improve the H-1B visa pathway to permanent residence

Although relatively small changes, allowing H-1B visa holders to self-petition for a green card and liberalizing the rules around work authorization for H-1B visa holders' spouses could improve the experience of H-1B visa holders pursuing permanent residence, making it a more attractive pathway for top talent considering opportunities in other countries. Currently, a limited number of "priority workers" are eligible to petition for an employment-based green card without the sponsorship of an employer. In Fiscal Year 2017, fewer than 17,000 workers obtaining an employment-based green card had this option.¹⁵⁸ The US system of employer-led eligibility, whereby nearly all economically targeted offers of immigration go to workers with existing offers of employment, is a useful, market-based test of the near-term demand for a certain immigrant's individual talents. But, in the case of H-1B visa holders, who arrived in the US through employer sponsorship and whose continued presence in the US is contingent on remaining consistently employed, insisting on employer sponsorship in order to petition for permanent residency is an unnecessary additional requirement.

Allowing self-petitioning after three years would potentially benefit employees and employers alike. For in-demand foreign workers weighing a potential path to permanent residence in the US, it would provide an additional measure of agency, making them relatively less beholden to their H-1B visa sponsors and reducing the risk that employers might improperly benefit from their sponsorship role by inappropriately exploiting H-1B employees who feel tied to their current sponsors. After arrival, H-1B visa holders may be more likely to move flexibly within the US labor market without worrying that changing employers will interrupt their application for a green card and send them back to the end of the line, or if a new employer will even be willing to sponsor them for permanent residency.

By lowering pressures that otherwise may lock them into their current job during a years-long wait for a green card, empowering H-1B workers may marginally improve the attractiveness of the H-1B temporary visa route compared to alternative options in other countries.

For employers, the increased likelihood that an H-1B employee might leave for a competing offer elsewhere in the same industry would be offset by the removal of an existing burden of sponsorship and by making it easier for employers themselves to recruit other H-1B workers already in the country. Finally, for American workers, empowering H-1B visa holders and making them more like other US employees reduces the worry that employers would potentially use the H-1B visa program to undercut the bargaining power of other workers, which could enhance support for the program.

The process would also be improved by providing the spouses of H-1B visa holders with a temporary work permit once an initial H-1B renewal has been completed, or sooner, if the spouse qualifies for an H-1B visa on his or her own. The potential labor market effects of such a policy would be very small, but it would improve the relative attractiveness of the H-1B visa program for the most in-demand migrants, making it easier for them and their families to integrate into the US during the wait for legal permanent residence status.

Fixing the Talent Recruiting Pipeline: The Case of Foreign Graduates

As highly trained international students graduate from US institutions of higher education, they currently have only a few pathways to remain in the country to work for an extended period. Graduates with sponsoring employers can apply directly for an H-1B temporary work visa or an employment-based green card. Alternatively, under the Optional Practical Training (OPT) program, foreign graduates of US universities can remain in the US to work for up to 36 months after graduation depending on the nature of their degree, often while continuing to apply for a visa that will allow them to remain working in the country longer. In 2017, more foreign workers newly gained temporary work status under OPT than under the H-1B visa program.¹⁵⁹ But that imbalance also helps highlight the key challenge recent graduates face. As their OPT status expires, these workers are competing with a broader pool of highly educated eligible H-1B visa applicants for a limited number of temporary work permits distributed via lottery.

The H-1B visa selection process has led to frustrating stories of recent foreign graduates of top universities forced to leave the US and their jobs shortly after graduation when their luck fails in the H-1B visa lottery, derailing hopes to work and settle in the US permanently.¹⁶⁰ The loss of recent graduates of US institutions particularly stings since so many are relatively early in their careers. The US is potentially forgoing decades of productive employment while missing out on the benefits of already paid-for investments in education and training. CED's 2018 policy brief on the value of foreign workers estimated that the collective value of the human capital infusion from college-educated immigrants, age 35 and younger, arriving in the US each year was equivalent to \$180 billion.¹⁶¹

In addition to potentially locking out in-demand graduates, H-1B visa rules, which limit the number of visas available for private sector work but not for non-profit or government research organizations, are diverting significant numbers of highly educated foreign graduates of US universities who initially enter the country on student visas from more desired or productive private sector job opportunities into academia-connected jobs not subject to the same restrictions, recent research suggests.¹⁶²

The loss or misallocation of top US-trained foreign talent has led to proposals that green cards be provided to foreign-born graduates of US universities. President Barack Obama and presidential candidates Hillary Clinton and Mitt Romney each proposed plans during their campaigns that would have provided foreign graduates with advanced degrees from US institutions in high demand fields like science and technology with an “automatic” or presumptive green card.¹⁶³ But processes that would delegate visa decision-making authority to the admissions staff of colleges and universities are potentially prone to abuse.¹⁶⁴ Instead, a better approach to leveraging the US’s strength in attracting the world’s most talented students would be to boost the number of employment-based green cards available annually—through a rise in employer-sponsored offers of permanent residence and new fast-track pathways to permanent residence for in-demand graduates—combined with needed reforms in the H-1B visa program.

However, if Congress cannot act quickly on broader immigration reform, policymakers and business leaders concerned about losing out on this source of talent should push federal lawmakers to immediately extend the period of temporary work eligibility allowed under OPT. Under current rules, most graduates with non-STEM degrees have a maximum of one year of employment in their chosen field before potentially losing their ability to work in the US. Similar to what has been suggested by William Kerr, a recent graduate’s OPT work eligibility could be set by formula. For example, graduates could have an additional year of work eligibility for every two consecutive years of American undergraduate study completed or for each additional year of American graduate-level studies completed en route to a terminal degree. In this way, talented, in-demand graduates would have a longer window in which to secure an employment-based green card or H-1B temporary work visa until more significant reforms of the US immigration system are enacted.

Realign permanent immigration rules to better meet economic aims

Under current law, most immigrants to the US secure a green card through one of four broad types of admission. The largest group of permanent residents are selected for purposes of “family reunification,” based on their relationship to an existing citizen or resident. A small set of 50,000 to 55,000 visas are awarded annually through a “diversity” lottery to applicants with the equivalent of at least a high school education from countries that had an average of fewer than 10,000 people admitted annually over the past five years. A significant number of refugees and asylees receive permanent status each year as well.¹⁶⁵

Of the 1.1 million migrants admitted to lawful permanent resident status each year from 2015 to 2017, only roughly 13 percent were admitted through employment-based channels.¹⁶⁶ By one estimate, even among this small minority of visa recipients, more than half of employment-based visas go to the family members of an admitted worker.¹⁶⁷ How many of these family member recipients will become workers themselves is not clear.

An immigrant not directly selected for economic reasons may still contribute to the country's economic strength. The potential for subsequently bringing family members to the US could be an important draw to some of the most highly sought-after migrants or increase immigrants' commitment to achieving integration in their new country. Even if an immigrant is not sponsored by an employer, many of the adults admitted through non-employment-based channels have a job, or secure one after arrival. However, it remains true that only a small number of new permanent residents in the US are chosen based on potential economic contributions.

Demographic pressures suggest that the US should be moving to aggressively add additional workers as an important economic goal on its own. Identifying the optimal level of immigration is a difficult to determine and, ultimately, there are political considerations that must balance US economic needs with what Americans are willing to support. Despite high-profile disagreements over immigration policies, most Americans are broadly supportive of immigration and recognize the ways in which immigrants contribute to the country's economic strength.¹⁶⁸ Immigration reform that links increases in immigration levels to more explicitly targeting and achieving economic goals might expand existing public support. Canadians have some of the most aggressive immigration policies in the world, framed largely around serving Canada's economic and demographic aims, and some of the world's highest levels of popular support for immigration.¹⁶⁹

American views of immigration are generally positive

Based on the most recent Gallup polling, roughly three-quarters of Americans think immigration is good for the country and most believe immigrants are good for the economy. Support for allowing higher immigration levels has steadily increased since the early 1990s. By contrast, the share of Americans who would like to see fewer immigrants come to the US has fallen by nearly half over the same period.¹⁷⁰ In a poll in January 2019, roughly equal numbers of Americans said they would like to see more immigration versus less. When asked specifically about legal immigration levels, support for increases outpolls support for reductions. Americans also appear to be very supportive of immigrants when they bring in-demand skills. In a spring 2018 Pew research poll, 78 percent of Americans supported encouraging high-skilled immigrants to move to the US for work.¹⁷¹

While views of immigrants and immigration are generally positive, there are indications that most Americans have an imperfect picture of US immigrants. In one study, the average respondent overestimated immigrants' share of the population by more than double.¹⁷² Similarly, Americans significantly overestimate the share of immigrants who are unemployed, unlawfully present, or do not have a college degree, as well as overestimating the level of public financial support immigrants typically receive.¹⁷³

Canada has achieved annual immigration inflows approaching roughly one percent of their existing population for much of the past three decades. By comparison, since 2000, the US has admitted permanent immigrants at about a third of that rate. But even taking Canadian levels to be a hard ceiling for plausible US policy, if the US targeted an annual permanent immigration inflow rate equal to just 0.5 percent of the population—roughly half the Canadian level—it would result in an additional 400,000 to 500,000 permanent immigrants each year on average.

Channeling those additional visas to immigrants selected for economic reasons would allow the US to significantly rebalance its immigration priorities towards the nation's economic interest while still maintain the level of visas for family reunification and diversity aims. The resulting level of immigration is unlikely to be overwhelming. The US's annual net growth rate in the foreign-born population would remain below the level experienced in each decade since 1970. The additional margin of immigration, if implemented with common-sense reforms to existing rules, would ensure that the US remains the top destination for the most in-demand migrant talent and help the US better profit from existing advantages in attracting international students, boosting future economic growth.

Increasing the number of immigrants admitted to the US would not require the US to become less selective. Reforms should be aimed at making the US more attractive to the immigrants that would most benefit the US economy through increased predictability and additional routes for the most talented and sought-after international talent to permanently settle in the US. Given the process' frustratingly long waits and uncertainty, it is likely that the average talent level of admitted immigrants could significantly increase with reforms that made it clearer that top migrants would be able to predictably secure a green card.

Increasing the numbers of employer-sponsored immigrants receiving permanent residence on their own will likely help relieve some of the bottlenecks faced by international students hoping to transition from studies to employment and by in-demand workers in the country on a temporary visa status attempting to secure permanent residence. Particularly for current H-1B visa recipients, a larger number of annual employment-based green card offers would help partially resolve the imbalance between the relative oversupply of highly educated foreign workers in the US on a temporary H-1B work visa and undersupply of employment-based offers of green cards that would give them permanent status.

The H-1B visa is intended to be a "dual intent" program, meaning that employer-sponsored eligible migrants can apply for temporary H-1B work status with the goal of gaining permanent residence status later. H-1B visa holders can indefinitely renew their H-1B visa while applying for permanent residence. But in the current system, an increasingly larger number of workers are staying in H-1B status for an increasingly longer number of years, making the H-1B path to permanent citizenship less predictable and more burdensome for in-demand foreign migrants with available opportunities in other countries.

Many H-1B visa workers' waits for a green card are exacerbated by the use of "per country" caps, which restrict the maximum share of employment-based visas going annually to workers from the same country of origin to no more than 7 percent. While countries like China and India represent, literally, some of the largest sources of the most in-demand talent in technology, science, and medicine, workers from those countries face additional restrictions and uncertainty in charting a path to permanent resident status. While increasing the number of available employment-based green card offers will help to grow the number of workers from large countries who are able to settle permanently in the US under current cap rules and shrink the overall size of the backlog of H-1B visa holders seeking a green card, policymakers should take the opportunity to eliminate existing "per country" cap restrictions on employment-based offers of green cards entirely.

CED has advocated for the removal of "per country" caps in the past.¹⁷⁴ While recognizing that diversity of origin is a laudable goal for immigration policy, restrictive caps that cause many deserving immigrants from large countries to wait years before coming to the United States or converting from temporary to permanent status, while eligible immigrants from smaller countries who may be relatively less in-demand or less qualified face no such constraints, is neither fair nor in our national economic interest. A more balanced approach would put individual employer-sponsored foreign workers on a more equal, and predictable, footing so that similarly eligible immigrants face similar wait times. For instance, rather than deploying a binding cap restriction on the basis of origin, a smaller carveout could be provided to ensure that a minimum share of employment-based green cards go to immigrants from smaller countries with less migration to the US, while freeing up the majority of employment-based green cards to flow to those workers at the "front of the line," regardless of country of origin.

There is broad support for relaxing or eliminating country of origin restrictions for employment-based offers of permanent residency. In July of 2019, the US House of Representatives overwhelmingly passed a bill, 365 votes to 65, that would eliminate the "per country" caps for employment-based green cards over time, merely restricting the combined share of visas available to the two largest countries of origin—presumably China and India for some time to come—to no more than 90 percent.¹⁷⁵ A companion bill in the Senate has bipartisan support but has not yet been voted on.

An increase in overall levels of employment-based green cards should be an opportunity to experiment with creative approaches to meeting a range of economic needs and improving the recruitment of the most highly desired international migrants. These approaches should supplement, rather than replace, the current US system in order to reap the benefits of both more short-term focused market-based schemes like the current employer-led US approach and popular points-based selection systems that have been used successfully by countries like Canada and Australia.

Employer-led vs points-based immigration systems

When it comes to recruitment of immigrants for permanent settlement to achieve economic aims, one way in which the US stands out among peer nations is its longstanding reliance on “employer-led” immigrant selection.¹⁷⁶ Rather than set out selection criteria based primarily on possessing in-demand skills or qualifications, the US lays out minimum eligibility requirements for sponsoring employers with regards to what jobs can be filled with immigrant workers and requires most would-be migrants selected on the basis of economic potential to have already secured employment. Following the rules, US employers have responsibility for creating the pool of potential immigrants through their offers of sponsorship for new or continuing employment. In practice, more than four out of five immigrants offered employment-based permanent residence typically are already in the US on a temporary basis.¹⁷⁷

Typical benefits and risks of employer-led and points-based approaches to immigrant selection

| EMPLOYER-LED | POINTS-BASED |
|--|--|
| <p><i>Benefits</i></p> <p>Adjusts to real-world signals of immediate demand from employers</p> <p>Selected migrants have a job offer, increasing odds of labor market success and successful integration</p> | <p><i>Benefits</i></p> <p>More flexibility to target projected future needs, current national priorities, or specific characteristics predictive of long-run labor market success</p> <p>If offers of admission are limited, has transparent criteria for prioritizing most desired migrants</p> <p>Allows talented migrants to migrate and then explore the labor market for best fit</p> |
| <p><i>Risks</i></p> <p>Employers do not necessarily select workers based on best odds of long-run labor market success or national needs</p> <p>If offers of admission are limited, hard to prioritize among eligible migrants based on need or demand</p> | <p><i>Risks</i></p> <p>Relies on discretionary judgment and uncertain predictions of future need</p> <p>Risks allowing in significant numbers of migrants who may struggle to secure a job consistent with the skills and characteristics they were selected for</p> |

An employer-led system has many advantages including that, within the constraints imposed by law, it constantly adjusts to real world signals of demand from employers rather than relying on the timing and judgment of a political process. It also helps to increase the odds that immigrants selected for economic purposes will be quickly integrated into the labor market, since they become permanent residents with a job in hand.

But employer-led systems also face challenges. While they are responsive to immediate labor market needs, they may not promote the nation’s long-run interest. For example, employers rightly prioritize their direct needs without worrying about whether a would-be foreign hire will be able to successfully adjust to unforeseen shifts in the labor market as an industry or occupation undergoes large-scale changes due to technology, competition, or consumer demand.

Employer-led systems can be tailored to achieve a preferred mix of immigrant skills or occupations, typically by reserving a number of employer-based visas for a certain occupation or purpose. To avoid treating all employer offers of sponsorship equally, the US employs a preference system that divvies out most offers of permanent residence across three categories of workers based on characteristics of their work.¹⁷⁸ But, as currently configured, it is somewhat blunt. Within any one category, the relative acuteness of an employer's need or the outlook for future labor demand and supply are not considered or prioritized. Differences in age, language skills, and work history are generally ignored. A young, highly educated specialist in information technology is treated the same as an older, similarly educated worker in a different field. An in-demand home health aide, an experienced machinist, and a financial analyst may each receive equal treatment when seeking permanent residence. To ensure that the annual allotment of green cards does not end up primarily in the hands of one category of worker, there are limits on the share of green cards available to each category.

Given the challenges involved with employer-led approaches and the potential advantages in having more discretion in setting the terms of immigrant selection, there has been significant support among some policymakers for moving the US immigration system in a more points-based direction. For instance, a 2019 proposal from President Trump would have reduced family-based visas and eliminated employment-based visas in favor of a new points-based visa selection system.¹⁷⁹ In contrast to employer-led systems, in a merit- or points-based immigration system, a country typically identifies the relative value of different qualities and characteristics—ranging from language skills to education levels to job experience—that incoming migrants should have, with interested applicants rank-ordered and accepted on that basis. Political leaders setting the basis of admittance can speculate on what skill sets or characteristics they think will have the most long-run economic value. Unlike in an employer-led system, typically a job offer is only one favorable consideration and not necessarily a requirement. Instead, some highly skilled immigrants can enter and then search for a job as a new resident.

If the criteria for selection are clear, one advantage of a points-based system is that it can make the steps towards, and probability of, admission more predictable, allowing potential migrants and their would-be employers to plan and proceed accordingly. But lacking the same emphasis on employer offers of sponsorship, points-based systems likely require more frequent adjustment to avoid quickly becoming out-of-step with the most pressing labor market needs. A particular risk of adopting a points-based system in the US is that, unless Congress were to defer or assign responsibility for frequently adjusting criteria to another entity, it is easy to imagine that legislative gridlock could prevent flexible management of points-based entry criteria to match changes in demands.

Notionally, a points-based system will succeed or fail based on a country's success in correctly predicting selection criteria to match uncertain future needs and adjusting accordingly as facts change. Summarizing some of the research on the labor market outcomes of "points-tested" economic immigrants, Demetrios Papademetriou and Kate Hooper find that they typically have lower earnings and are less likely to be employed compared to employer-sponsored migrants, at least initially.¹⁸⁰ It is not clear which system has produced better long-run outcomes.

In thinking about what a points-based system might accomplish, there is necessarily a tension: Since permanent residency decisions will affect the composition of the labor force for decades, assessing immediate demand should not necessarily be the primary guidepost for making immigration decisions on an economic basis. The challenge of predicting just what skills or characteristics will be most valued in the labor market a decade in the future underscores the value of following near-term signals.

Ultimately, the differences between an employer-led and a points-based immigration system may be less significant than how a country chooses to use them. After all, two different points-based immigration systems may rely on very different characteristics to determine which immigrants are most desired. For example, policymakers could place significant weight on work experience and having an employment offer within a points-based model, making it functionally an employer-led model in execution. Similarly, carve-outs for specific high demand occupations, education backgrounds, or other characteristics may inject more points-based-like discretion into an employer-led model.

Countries do not necessarily have to choose between employer-led and points-based models. Some proposals for the US have explored adopting a dual-approach, with both merit-based and employer-led channels. A 2013 immigration bill that passed the US Senate with bipartisan support, though not ultimately enacted into law, would have added a new visa category admitting up to 250,000 people a year under points-based selection criteria.¹⁸¹ In its immigration system, the US should aim for the mix of employer-led and points-based elements that balances the benefits and risks of each approach.

Pilot a fast-track entry program

To increase American competitiveness in recruiting top talent and to make it easier for businesses to access that talent, the US should pilot the use of a new points-based process to “fast track” highly qualified workers into the US labor market. In the context of an increased annual number of employment-based green card offers, a limited number should be set-aside to pilot a rapid entry program whereby eligible foreign workers meeting the minimum established qualifications in terms of age, language skills, and education or work experience could apply at any time for work-eligible entry into the US without needing a job offer in hand.

Unlike the current H-1B temporary visa lottery, where eligible applicants without advanced degrees all share the same odds of success or failure, current applicants for fast-track entry would be rank-ordered against the admission criteria with small batches of admission offers periodically going to the highest-rated applicants in the pool. Training or experience in particularly high-demand fields with an expected enduring shortage of workers could be specifically targeted and rewarded. Accepted applicants would be provisionally approved for a set-aside green card conditional on achieving certain employment benchmarks during the first two years after entry. While in the pool awaiting a potential offer of admission, fast-track applicants would be free to pursue other employer-sponsored avenues to working in the US. Applications that have not led to an offer of fast-track entry would expire after six months.

By using clear criteria for merit-based admission decisions and providing an equally clear path and timeline to permanent residence, a fast-track program would be highly attractive to the most in-demand foreign workers with essential talents and competencies. It would also give highly qualified and in-demand foreign graduates of US universities another pathway to working and settling in the US, while slightly reducing some of the current pressure on the H-1B visa program and other temporary pathways for employment for in-demand workers. Employers that might otherwise be reluctant or unable to hire non-citizens because of current delays and uncertainty would be able to compete for highly qualified fast-track workers who initially enter the country without a job offer on an even footing. Relative to any other hiring decision, employers would only need to pay a sizable processing fee, compensating the government for the administrative cost of the program and ensuring there is an incentive to hire equivalent, domestically available talent.

To guard against the program criteria becoming inflexible through congressional inaction, the fast track pilot could require explicit reauthorization annually. Labor market outcomes of admitted workers should be continually tracked and evaluated over the pilot's first decade, providing guidance on whether, relative to employer-based offers of admission, fast-track entry should be expanded, shrunk, or discontinued in the future.

Set aside an annual allocation of regionally designated employment visas

It is inarguable that labor market needs and demographic pressures in different regions can vary dramatically, as can the political will and desire to attract foreign labor. While a largely national approach to immigration makes sense, especially given the free movement of workers across states, the ground-level input of governors, mayors, and smaller employers less connected to international pipelines of talent are largely missing from current immigration rules and decisions. As a result, highly educated foreign workers mostly flow to large, urban areas where previous immigrants have clustered for economic or historical reasons, making immigration a less powerful economic force for residents of smaller or slower growing places that could stand to benefit. Spreading the benefits of immigration to more localities, and allowing them increased agency to recruit immigrants in numbers and with skills that suit their most pressing needs, could also help boost acceptance of expanded immigration nationally, as the contributions of talented immigrants to the local economy become more readily apparent to voters in the affected regions, particularly in aging communities poised to become even more reliant on immigrant-provided services in the future.

As it has in the past, CED continues to recommend the creation of state or locally administered employment-based visas, allowing some flexibility for interested cities or states to designate a limited number of immigrants sponsored to live and work in their regions.¹⁸² Such designations could happen in partnership with local employers or be predicated on attracting immigrant entrepreneurs who may be employers themselves.

A “place-based” approach to visa decision-making is already a component of some international immigration systems. Canada has recruited roughly a third of its economic-targeted immigrants through region-specific visa offers in recent years, while about a fifth of Australia’s skill-based visas go to immigrants sponsored by regions experiencing low growth or acute worker shortages.¹⁸³

The Economic Innovation Group has proposed the use of a limited number of “heartland” visas that would initially and temporarily restrict where visa-holders can work or start a business, while providing a clear path to permanent residency and full mobility.¹⁸⁴ That clear pathway would help attract immigrants who might not otherwise consider living in these regions. Meanwhile, local communities would benefit from the increased ability to recruit foreign talent and gain a short window in which to persuade immigrants to set down roots in the region more permanently. The US Conference of Mayors has expressed support for heartland visas.¹⁸⁵

An alternative approach to local community visas would incentivize visa holders to reside in sponsoring regions with declining working-age populations by converting an initially temporary work visa to legal permanent status after a minimum period of time.¹⁸⁶ Immigrants would still be allowed the option of free movement if they were willing to sacrifice the special path to green card eligibility, lowering any enforcement burden associated with ensuring that place-based visa holders remain in a particular region. In 2017, two Republican members of Congress proposed piloting a starker federalization of immigration responsibilities along the lines of a block grant, providing an allotment of renewable three-year employment-based visas to the states, while deferring some key rule-setting and administration choices to state discretion.¹⁸⁷ Renewal of the state-based visas would have been dependent on state-sponsored migrants remaining employed and in the region.

Establish a Workforce and Immigration Policy Advisory Board

For nearly two decades, CED has been advocating for the creation of a national advisory board focused on the role of, and demand for, foreign workers in the US labor market and the functioning of the US immigration system.¹⁸⁸ Modeled after the Social Security Advisory Board, the board would be made up of a bipartisan group of experts—such as members of the business community and academics—appointed by the president and Congress to focus specifically on the economic and workforce aspects of US immigration. The board members would bring diverse experience and viewpoints on the functioning of and challenges facing US immigration, with rotating appointments ensuring that the board’s experience and knowledge remained current.¹⁸⁹ Rather than creating additional bureaucracy, the advisory board would largely use existing federal staff, expertise, and data to provide new thinking and insight to help inform the work of the US government. Tasked with the goal of reaching bipartisan consensus on their recommendations, the advisory board could help drive discussions and debate around the elements of an optimal immigration policy, encouraging the maintenance and modernization of US immigration policy as the economic facts on the ground evolve and challenging partisan division as an excuse for stasis.

The advisory board could promote more flexibility and adaptability in the US system, helping us to learn from, mimic, and improve upon more innovative efforts abroad. According to Dorsi Meissner, the former Commissioner of the US Immigration and Naturalization Service, not only is the US less oriented toward identifying and recruiting talent than other top immigration destinations, but it employs a “rigid, outdated system” incapable of adjusting to changes in the needs of the US labor market.¹⁹⁰ Arguably, the most recent major legislative change to the US immigration system was the Immigration Act of 1990, which created the H-1B temporary visa for highly skilled workers and capped different categories of permanent immigration at levels that are largely similar to those that in effect today.¹⁹¹ Given the shifts in the US and world economy since 1990 and changes in globalization and advances in technology, it may be surprising that the US’s immigration system has continued serving its purpose as well as it has after roughly three decades of near stasis. Relative inaction on immigration policy stands in sharp contrast to countries like Canada, Australia, and much of Europe, which frequently adjust their immigration systems to respond to shifting economic needs.¹⁹²

The advisory board could be charged with reporting annually to Congress—identifying and anticipating key issues and trends, monitoring the US’s success in recruiting top talent relative to our international competitors, and providing recommendations to help inform policymaking and oversight of the US immigration system aimed at achieving the nation’s economic goals. The advisory board could also be instrumental in setting the general terms of debate over what national immigration levels should be targeted, whether particular skillsets, characteristics, or occupations are being over- or under-served by existing immigration programs, and how the US immigration system should evolve in the face of changing facts related to the US workforce or economy. Congress also could choose to assign the advisory board additional responsibilities. For example, under CED’s proposal for piloting a fast track entry program, the advisory board would be given responsibility for annually proposing revised selection criteria for in-demand workers, subject to an up-or-down vote in Congress.

Conclusion

Immigration policy presents business leaders and policymakers looking to bolster the strength and productivity of the American workforce with a valuable opportunity to enhance future growth by benefiting from the skills and talents of workers outside of US borders. The US remains the world's biggest draw for in-demand migrants looking to take advantage of its enormous opportunities. Such immigrants represent a means for boosting innovation and economic growth, helping to counter the demographic and fiscal pressures posed by slowing population and workforce growth regionally and nationally.

Immigration reforms focused on the long-run national interest would reduce barriers and burdens that keep US employers and citizens from more fully benefiting from these potential contributions and drive increased prosperity and US global leadership. In this policy brief, CED has outlined six recommendations that business leaders and policy-makers should champion to help achieve those goals:

- 1. Reform the H-1B visa application and approval process** Strengthen the US's attractiveness to the most in-demand international workers and graduates and allow employers to access top talent more quickly and predictably by pursuing a series of reforms to the H-1B visa program, including:
 - Shifting to quarterly or monthly allotments of visas;
 - Speeding up visa processing;
 - Prioritizing visas for the eligible applicants with the highest offered salaries; and
 - Instituting a mechanism to modestly increase or decrease the number of available visas based on recent demand.
- 2. Improve the H-1B visa pathway to permanent residence** Make the H-1B visa pathway to permanent residence more predictable and attractive for in-demand H-1B visa workers by allowing them to self-nominate for permanent residence upon the initial renewal of their H-1B visa and by making it easier for the spouses of H-1B visa holders on track for permanent residence to gain a temporary work authorization.
- 3. Increase economically motivated offers of permanent residence** Rebalance US immigration priorities towards the national economic interest while protecting existing family reunification visa levels and the diversity lottery by increasing annual permanent immigration inflow levels, channeling additional visa offers to immigrants selected for economic reasons, and removing country-of-origin based limitations on employment-based offers of permanent residence.
- 4. Pilot a "fast-track" entry program for top international recruits** Increase US attractiveness to top international talent by piloting the use of a points-based immigrant selection process to "fast track" a limited number of highly qualified workers into the US and towards expedited offers of permanent residence.

- 5. Set aside an annual allocation of “place-based” employment visas** Ensure that more communities can compete for and benefit from international talent aligned with their specific labor market needs by allowing for a designated number of region-specific offers of immigration.
- 6. Establish a Workforce and Immigration Policy Advisory Board** Better inform US immigration policy discussions, legislation, and oversight by establishing a standing, bipartisan advisory group tasked with tracking and anticipating key issues and trends, monitoring US success in recruiting top talent relative to other countries with which we compete, and providing recommendations for the operation of an immigration system that most effectively advances US economic interests.

Endnotes

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- 10 [“Projected Population Size and Births, Deaths, and Migration: Main Projections Series for the United States, 2017-2060, Table 1,”](#) US Census Bureau, Population Division, September 2018.
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- 12 Jynnah Radford, [“Key Findings about US Immigrants,”](#) Pew Research Center, June 17, 2019.
- 13 Authors’ calculations based on [“Estimates of the Components of Resident Population Change: April 1, 2010 to July 1, 2018,”](#) US Census Bureau, Population Division, April 2019. The US Census Bureau’s definition of net international migration includes some nonimmigrants. For instance, native-born populations moving to the US from abroad or from Puerto Rico are also included, as are members of the Armed Forces returning from overseas. Positive net international migration contributed 19 percent of the net growth in the ten Metropolitan Statistical Areas with the fastest rate of population growth between April 2010 and July 2018.

- 14 [“Table 4. Cumulative Estimates of the Components of Resident Population Change for the United States, Regions, States, and Puerto Rico: April 1, 2010 to July 1, 2018 \(NST-EST2018-04\),”](#) US Census Bureau, Population Division, December 2018. US Census Bureau (April 2019). The nine states were: Maine, Michigan, Mississippi, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, and Vermont. The Metropolitan Statistical Areas (MSA) that incorporate New York City, Philadelphia, Chicago, and Detroit are among the 36 MSAs that would have had negative population growth between April 2010 and July 2018 but for net positive international migration.
- 15 US Census Bureau (December 2018). For example, positive net international migration offset roughly 70 percent of the negative domestic outmigration in Connecticut, roughly 32 percent of the negative domestic outmigration in Illinois, and roughly 21 percent of the negative domestic outmigration in West Virginia. Immigration helped to reduce total population loss in 80 of the 84 MSAs with net declines.
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- 24 [“Children in U.S. Immigrant Families,”](#) Migration Policy Institute, accessed on July 8, 2019. The share of children with at least one foreign-born parent has nearly doubled since 1990.
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PUBLISHING TEAM
Editor Anita Dennis
Design Peter Drubin
Graphics Ray Vella

R-1716-20

ISBN: 978-0-8237-0008-0

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