

POLICY BRIEF

The Power of More Foreign-Born Workers



**How Raising Immigration
Levels Can Boost
US Economic Growth**

- Stagnant labor force growth makes boosting immigration a primary channel through which the productive capacity of the US economy can expand
- Increasing the number of foreign-born workers entering the US labor market will help meet critical labor shortages and help the labor force grow in line with an increasingly large retired population
- Immigrants who arrive each year between the ages of 18 and 35 have benefited from education and child-rearing spending that would cost more than \$300 billion if obtained in the US
- These same immigrants contribute to generating future income in the economy, depending on a distinct level of human capital endowment based on age, educational attainment, and how easily the immigrant can integrate into the US labor market
- Additional immigrants are unlikely to place much downward pressure on wages for native-born workers, and they create complementary job opportunities for both high- and low-skilled workers.

The future growth prospects of the US economy are severely constrained by a lack of working-age population growth. Fewer workers means less output without increases in productivity so large as to be highly unlikely. Increased immigration alone directly addresses the problem of fewer workers contributing to the US economy. Sound policy can help boost both the quality and quantity of available workers while ensuring that increased immigration serves to broaden rather than diminish opportunities for native-born workers.

The Committee for Economic Development's previous related brief, *Immigration Policy That Works: Bringing Foreign-Born Workers into High-Shortage Occupations to Grow Our Economy*, focused on policy changes that would help

align immigrant admission criteria with both occupational and geographic labor shortages. The question of whether more or fewer immigrants should be admitted was left unaddressed. This report identifies the potential economic benefits of a rise in the number of new immigrants based on both their volume and their human capital endowments, defined in this brief as the capacity of education and experience to add to future earnings.

Each immigrant of working age who arrives in the US represents an immediate infusion of human capital into the economy. As with any form of investment, human capital once formed delivers a stream of future income,¹ adding to GDP. New immigrants carry with them human capital formed from education, training, and child rearing they received in their home country. Once they arrive in the US, they add to the productive capacity of the economy, the value of which can be assessed by the present value of their future earnings. As a result, the return on the investment in immigration is quite high, as the US economy benefits from the early investment in immigrants' human capital, made in their home country. As the population of new immigrants shifts toward a more educated one, these human capital endowments become larger.

And not to be overlooked, today's immigrants can add to the US economy's productive capacity now. Such incremental human investment in members of the native-born population starting today would obviously take about two decades to come on line.

The last decade has seen the US economy grow at an average rate of just 1.4 percent. Avoiding a rerun of the financial crisis and boosting productivity through the deployment of new technology are two keys to ensuring improved economic performance over the next decade. However, the biggest obstacle to achieving that faster growth is a lack of workers. Stagnant workforce growth means much less economic growth. Carefully and purposefully boosting immigration levels therefore provides a channel

to add to the productive capacity of the workforce and thus the economy without any additional government or private spending required.

Congress has great difficulty passing fiscal stimulus measures, be they tax cuts or infrastructure projects, because such measures are costly and add to the US budget deficit and debt. In 2015, nearly 1.4 million immigrants arrived in the US,

nearly half of whom were between 18 and 35.² One way of valuing their contributions to the economy is by examining the costs associated with preparing native-born workers to enter the labor force. Adding just 100,000 working-age immigrants per year provides a level of human capital infusion that would cost \$47 billion dollars to obtain through education and child rearing spending on native-born workers

Figure 1

Using the cost method, the human capital contribution of new immigrants can be estimated at \$314 billion per year

Cost in dollars of child rearing and education spending category



Parental education and child-rearing cost

\$260
thousand
per person



Public school government funding

\$146
thousand
per person



Higher education tuition on average at state school

\$98
thousand
per person



Federal/state funding of higher education

\$28
thousand
per person

Sources: US Department of Agriculture, The Condition of Education from National Center for Education Statistics, College Data, The College Board

Number of immigrants arriving in the US between ages 18 and 35 (2015)

Immigrants without a BA

330
thousand



Immigrants with a BA

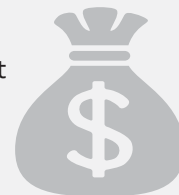
338
thousand

Source: 2015 American Community Survey

Total human capital value of immigrants arriving annually by category

Human capital value of immigrant without a BA

\$134
billion



Human capital value of immigrant with a BA

\$180
billion

Source: The Conference Board

This cost-basis approach may be too simplistic. For example, the process of schooling and child rearing does create job opportunities for those involved. In addition, many immigrants have children of their own or obtain additional schooling in the US. Still, because the cost-basis approach offers a simple way of valuing human capital developed before coming to the US, it provides a valuable if limited perspective. To better estimate the effect of immigrants on future economic growth, measuring the value of each immigrant's likely future earnings based on his or her individual characteristics can provide more precise information for policy makers about the effect of immigration on future growth prospects.

Just as GDP can be measured by counting either the total expenditures of consumers, firms, and the government, or the total income earned by the same, the human capital contribution of immigrants to future potential output for the US economy can be measured in both ways as well. Measuring the future earnings potential for immigrants is more difficult, however, because it requires using wage data on immigrants over time to precisely estimate how different factors will affect future earnings potential. The rewards from this research, though, would also be immense, especially for policy makers.

This brief first describes how an income-based estimation could be carried out, and then uses the expenditure approach as a means of providing estimates of the contributions of immigrants to the economy. We hope this brief inspires additional research in this domain to aid policy makers.

Attracting More High-Skilled Immigrants Is Critical to Boosting US Growth Potential

From a growth perspective, the importance of boosting net migration is clear. The population of native-born 18- to 64-year-old workers in the US will expand by just 0.1 percent on average from

2017 to 2027.³ Immigrants will therefore be the primary source of labor force growth.

Still, not all immigrants will have an equal impact on future US productivity. More-educated immigrants present an opportunity to raise both the quality and quantity of the US labor force. College graduation rates among native-born workers are slowing.⁴

The pool of new US immigrants is becoming more educated over time. Mexico and much of Latin America face similar demographic trends resulting in slower working-age population growth.⁵ As a result, smaller numbers of lower-skilled immigrants, many undocumented, are seeking to cross the border. Immigration from Asia, particularly from India and China, has risen dramatically during the past decade, and large numbers of these immigrants are highly educated. Presently, though, China, India, and other large sending countries have access to only a limited number of employment-based visas per year, vastly limiting the potential human capital contribution of immigrants from these countries. Further, limits on permanent resident visas for employment-based categories, as well as temporary H-1B visas, limit the ability of new immigrants to boost US growth prospects.

In contrast, Canada is continuing to grow its labor force even as its native-born labor force is already declining.⁶ It plans to accept 980,000 immigrants during the next three years, almost 3 percent of the country's current population. Currently, 63 percent of Canada's immigrants⁷ are admitted through employment-based programs, compared to only 14 percent for the US.⁸ Raising employment-based visa limits would allow the US economy to capture more employment-ready, already educated workers.

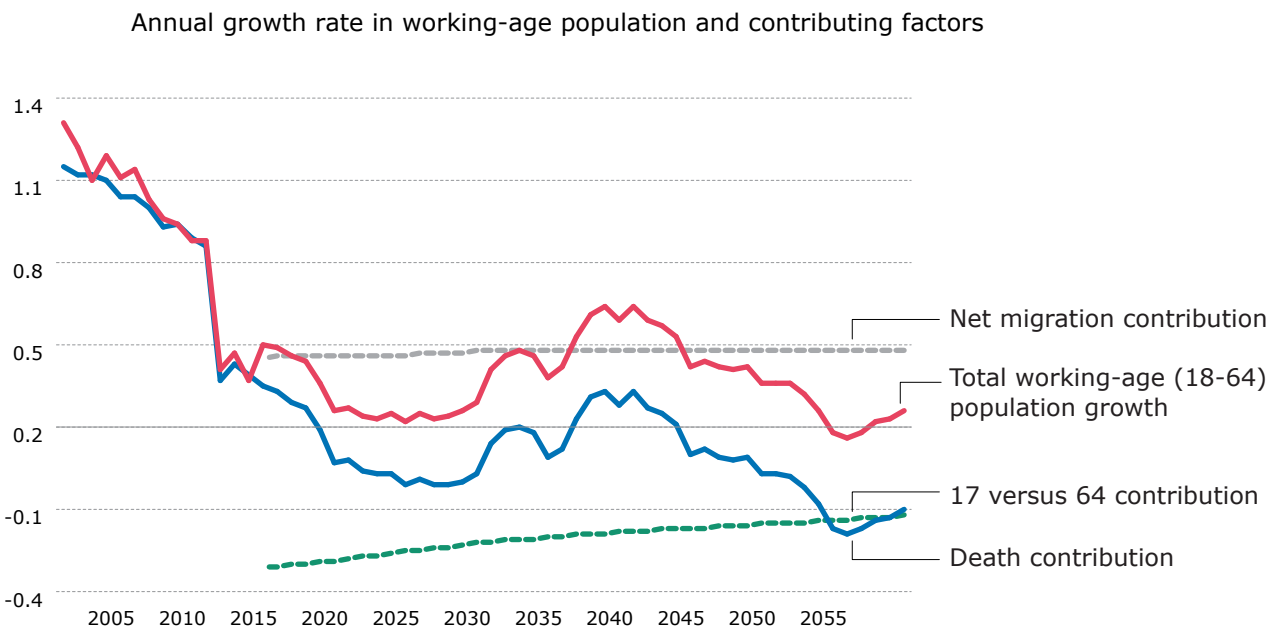
CED's [previous immigration policy brief](#) also concluded that the current US immigration system does not adequately consider future labor shortage risk, with respect to both occupation and geography. Research from The Conference Board

has found that workers in health occupations may be in short supply because growth in the number of older Americans will put pressure on the US health care system to deliver more services, while the native-born supply of health service workers is unable to keep up.⁹ Foreign-born workers constitute large proportions of current US doctors, nurses, and home health aides, but the present immigration system makes it difficult for workers in the latter two groups to come to the US. In contrast, H-1B admissions are dominated by computer programmers, software developers, and others in computer-related occupations, where The Conference Board research finds that risks of future labor shortages are lower because of the small number of retirements and large numbers of new entrants in these fields.¹⁰ Focusing on STEM degrees alone is not a sufficiently nuanced way of describing future labor market needs. Instead, occupations requiring statistical and mathematical analysis, such as that of data scientist, will need more workers, as will some categories of

engineers and non-computer-related occupations like marketing, which will still require tech-savvy workers.

Geography matters, too. Future labor shortage risks will not be the same across all areas of the US. States like Maine have large numbers of 50- to 64-year-old citizens (who will retire soon) relative to the number of people between the ages of 3 and 17 (who will soon enter the labor force). This imbalance is much less of a concern in many western states, particularly Utah, with relatively young populations. Presently, immigrants flock to large coastal metropolitan areas and to the southwestern US. Policies modeled on Canada's Provincial Nominee Program, which would allow states to select immigrants to meet their specific needs, could help lead to a geographic distribution of new immigrants that better supports the US labor market.

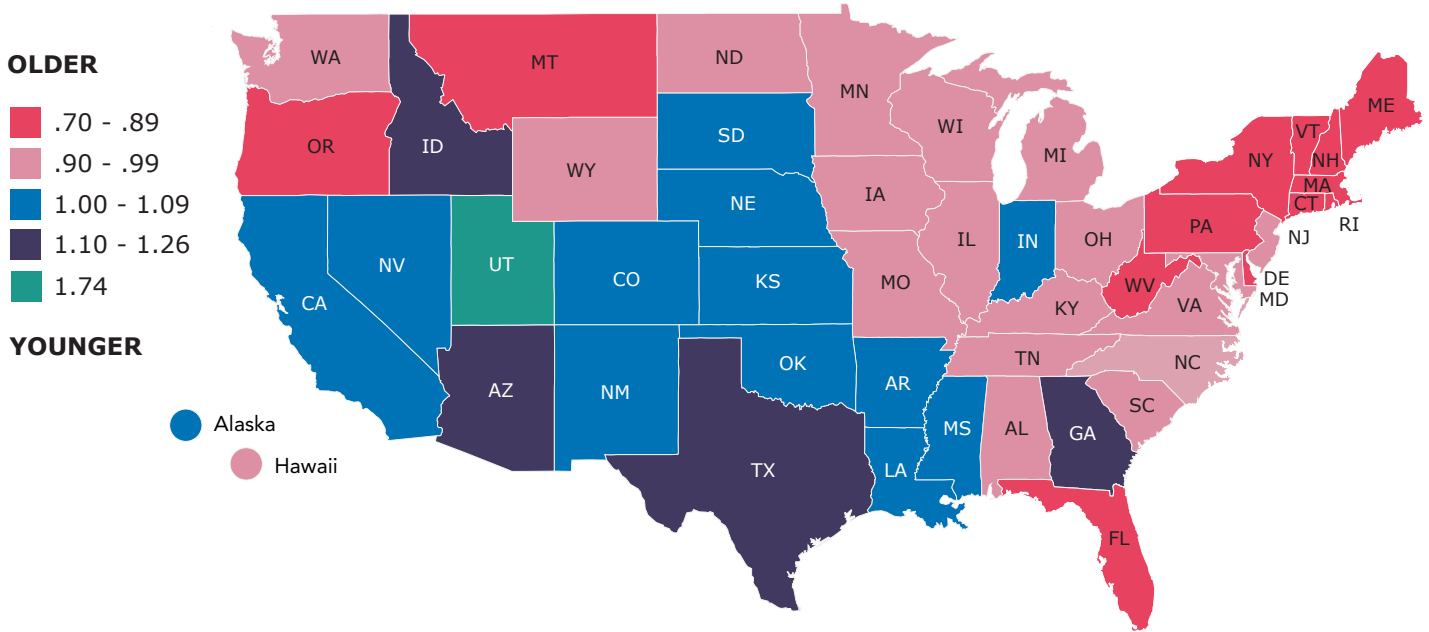
Figure 2
With the number of 17 and 64 year olds almost identical between 2015 and 2030, native-born labor force growth will be very slow



Source: US Census Bureau; calculations by The Conference Board

Figure 3
**States with older populations can benefit even more
 from the addition of new immigrants**

Number of 3–17 year olds per each 50–64 year old



Source: Bureau of Labor Statistics; calculations by The Conference Board

Estimating the Value of Immigrants New to the US on a Cost Basis

One simple way of assessing the impact of immigration on future growth would be to estimate the expense of rearing and training new immigrants had they been born in the US. This approach is not ideal. The process of schooling and child rearing does create job opportunities for those involved. In addition, many immigrants have children of their own or obtain additional schooling in the US. The implications of higher immigration levels for federal and state budgets are also difficult to determine since one would have to estimate the effects on government revenue and expenditures of higher levels of immigration.¹¹

Still, this form of estimation can provide a baseline for assessing the effect new immigrants can have on long-term US economic growth potential.

The US Department of Agriculture estimates that on average, households would have spent \$260,170 raising a child who turned 17 in 2015.¹² This figure includes costs for housing, food, transportation, clothing, health care, child care, and out-of-pocket spending on education. It is appropriate to factor in spending on public school (which is not included in the USDA estimates), which the National Center for Education Statistics prices at \$11,222 per pupil for the 2013-14 school year.¹³ Combined, public and private spending to raise the average child through age 17 reaches just over \$400,000.

Among the approximately 668,000 immigrants entering the US in 2015 who were between 18 and 35, 48.5 percent had bachelor's degrees or above.¹⁴ The average cost of attending a public college, including in-state tuition and other expenses, is \$24,610, according to data from The College Board.¹⁵ Public authorities contribute an additional \$6,966 per pupil.¹⁶ The result is an average expenditure on higher education of \$11,304 that is avoided because so many immigrants arriving in the US do so with bachelor's degrees in hand. Even this is an underestimate, because many new arrivals are students who may be supported by their parents living abroad, or by foreign governments, while obtaining degrees at American institutions. Any additional training, be it at the postgraduate level or as vocational training for students who do not complete four-year degrees, is omitted from these estimates.

Because these foreign-born workers enter so early in their careers, the US reaps almost fully the payoff to their human capital contributions without making additional investments. As a group, these individuals provide an infusion of human capital value to our economy of \$314 billion per year, equivalent to 1.9 percent of GDP. To put that in perspective, the human capital infusion arriving annually across our borders would pay for more than half of annual defense expenditures¹⁷ or more than 60 percent of Medicaid spending.¹⁸

Of course, not all immigrants have the same potential to contribute to the labor market. Those with higher education are valued over \$120,000 more than those without bachelor's degrees. That higher education spending is likely to pay off handsomely in terms of greater lifetime incomes.¹⁹ The individual characteristics of immigrants vary in many other ways as well, which is why an income-based approach allows for a more granular analysis of each individual's human capital contribution.

Using a Future Income Approach to Estimate the Human Capital Value of New Immigrants Entering the United States

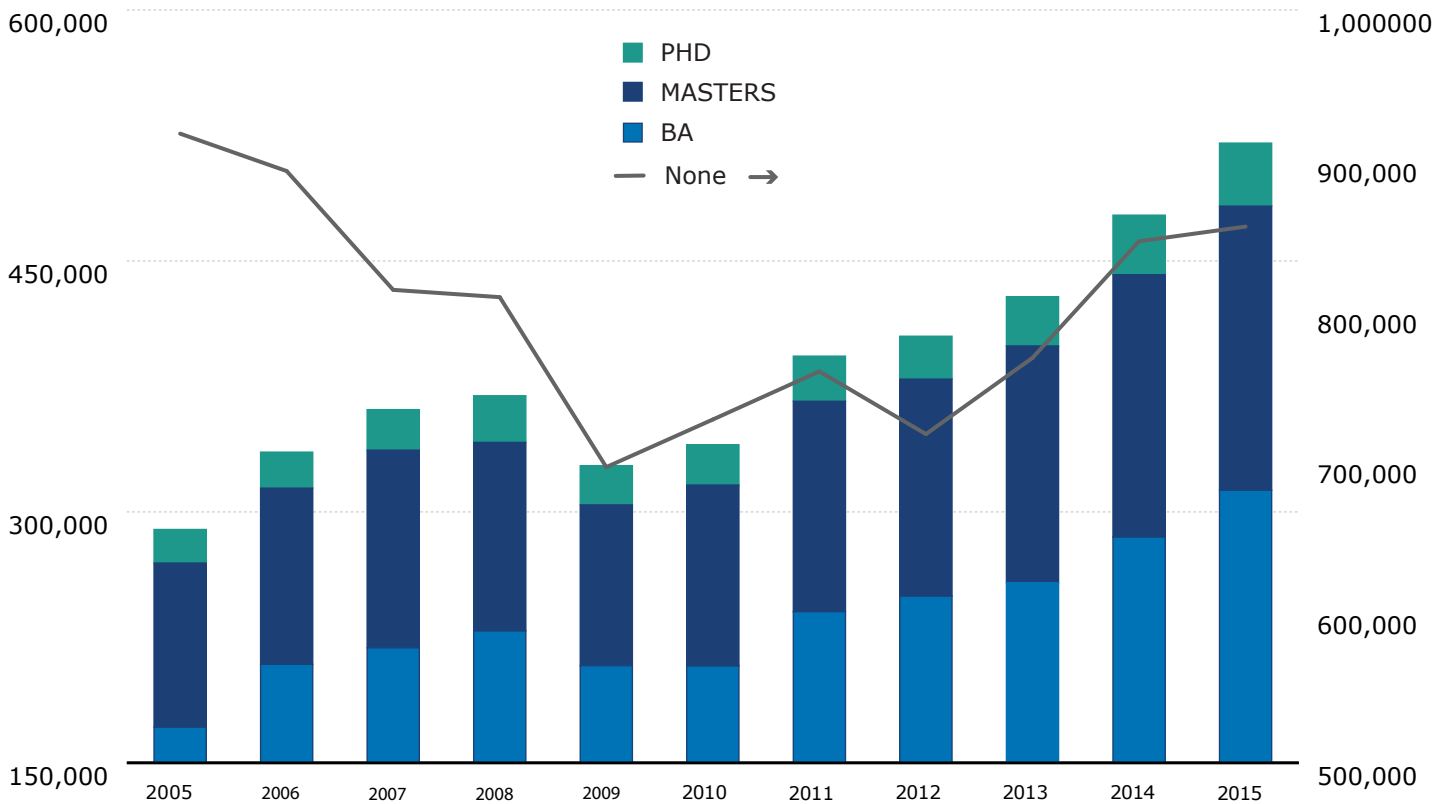
Economists Dale Jorgenson and Barbara Fraumeni estimate the value of human capital based on the present value of future lifetime labor and nonlabor market income earned by an individual.²⁰ Each individual is endowed with a certain minimum level of human capital based on the normal child development process. Education, like any other investment, provides a stream of future income by adding to an individual's human capital endowment and by extension his or her future earning capacity.²¹ Returns to education can be estimated based on how much additional years of schooling add to lifetime earnings. Other factors, such as the different earnings trajectories of male and female workers, can also be included when examining the comparative value of human capital formation in each. Human capital investment can be a remarkably powerful tool for generating growth. Gains in educational attainment in the decades following the Second World War accounted for an additional 0.6 percent in GDP growth per year during the 1960s, but less thereafter as gains in educational attainment slowed.²² As the share of new immigrants possessing bachelor's and advanced degrees rises, increased immigration, especially if paired with policies designed to make it easier for those possessing or likely to obtain such credentials to come, can help the contribution of labor quality to growth rise again.²³

Further, studying the relationship between past immigrants' characteristics and their lifetime earnings can provide a more granular perspective on how different immigration policies may affect the value of human capital immigrants will bring to the US and their contribution to future growth

potential. The goal is to identify any factors that may influence an immigrant's lifetime earnings. Some of these could include:

- Age of arrival
- Years of schooling
- Years of work-specific training or experience
- Choice of location
- Choice of occupation
- Whether schooling or training took place within the US – because the value of human capital formed abroad may be diminished in the US due to difficulties in translating credentials and skills into a US business context
- English language proficiency
- GDP per capita of sending country²⁴
- Work status – documented or undocumented

Figure 4
Even as overall immigration levels slows, the number of immigrants entering the US with BAs or advanced degrees is rising



Source: American Community Survey; calculations by The Conference Board

By singling out the characteristics that identify future income earnings potential, policy makers could estimate the potential contribution of each incoming immigrant to future growth. Data on earnings and representative samples of the population covering these characteristics would be required. Literature on the effects of many of these components on wages is quite extensive, but what has not been done is to look at the current distribution of immigrants, considering their characteristics in a maximally granular way. Such work would help economic policy makers better illustrate the value of encouraging those with high levels of educational attainment and those who will play critical labor market roles to come to the US.

Welcoming Additional Immigrants Is Unlikely to Place Downward Pressure on Wages for Native-Born Workers as a Group

Were higher levels of immigration to result in lower wages for native-born workers, positive effects on growth would be diminished. While some studies find short-term negative wage effects on narrowly defined populations, higher levels of immigration would be unlikely to drive down wages generally because immigrants create additional consumer demand and help native-born workers shift to roles taking better advantage of their skills. A National Academies of Sciences, Engineering, and Medicine panel found that the effect of immigration on wages for native-born workers is quite small, though for subgroups, especially at the lower-skilled end of the spectrum, some negative effects are possible.²⁵ Studies by Chad Sparber and Giovanni Peri conclude that the arrival of less-skilled immigrants results in native-born workers focusing more on tasks where communications skills are important, while the new immigrants focus more on manual

tasks alone.²⁶ The two groups thus function as complements, a finding that these authors replicate for cognitive tasks as well.²⁷ As described above, the greatest potential is for immigration policies to focus on skilled workers in occupations with shortages, at least in particular geographical areas. Such policies would result in less substitution of immigrant for native-born employment.

Bottom Line: New Immigrants Offer the US a Needed Human Capital Infusion

Economic growth depends on the quality of physical and human capital, along with technological improvements in the way both forms of capital are leveraged. Policy makers should focus on how higher levels of immigration can provide an infusion of skilled human capital into the US economy—arguably even more valuable because growth in both the overall number of workers, and especially the number of workers possessing bachelor’s and advanced degrees, is slowing. National policies that admit more immigrants, especially those with high levels of education and needed skills that match likely future labor shortages, will boost future US economic growth.

Endnotes

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- 24 George Borjas, "The Slowdown in the Economic Assimilation of Immigrants: Aging and Cohort Effects Revisited Again," *Journal of Human Capital* 9, no. 4, 2016, pp. 483-517.
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