

Growth and Immigration:
A Handbook of Vital
Immigration and Economic
Growth Statistics



GEORGE W. BUSH
INSTITUTE

Matthew Denhart



USHCC
UNITED STATES HISPANIC CHAMBER OF COMMERCE



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Preface: The Economic Case for Immigration Reform

For millions of people in the United States, the subject of immigration reform is so much more than a policy issue to be debated and dramatized on cable news and in Washington, D.C.

The process of how people come to the U.S. and build their lives is a question of fundamental importance. It guides whether they can build prosperous and secure lives in this country. It determines the process that foreign-born people can follow to realize their dream of becoming American. It also incorporates new cultures and traditions into the richness of our country.

Although these considerations can result in strong emotional tones within the immigration reform debate, what is sometimes lost as a key part of the conversation is the very important fact that immigration reform is an economic imperative for our country. Any economic growth strategy must account for how and why workers come to the U.S.

The current immigration system distorts the free market. Enterprises cannot get the workers they need to fill the jobs they have determined are critical to their future growth and success. Workers, with ability and drive, are turned away due to policies that hinder their economic advancement. Innovation gets stifled when scientists and engineers with a desire to create and innovate in the U.S. are turned away. By the same token, we cannot take for granted the contributions of lower-skilled workers who toil in our fields, restaurants, and homes.

The United States Hispanic Chamber of Commerce, the country's largest Hispanic business organization, is honored to partner with the George W. Bush Institute on the second edition of Matthew Denhart's remarkable analysis of immigration reform.

This book provides a comprehensive look at the economic benefits of immigration reform. By examining a broad range of our economy's needs, like entrepreneurship, productivity, patents, and educational attainment, Denhart and the Bush Institute have provided a thorough look at the economic necessity of pro-growth immigration policy reform. The analysis shows that reforming our immigration system in a comprehensive, commonsense way is a key component of achieving strong and lasting economic growth and ensuring our country's continued prosperity.

Sincerely,
Javier Palomarez
President & CEO
United States Hispanic Chamber of Commerce

“...what is sometimes lost as a key part of the conversation is the very important fact that immigration reform is an economic imperative for our country.”

“To immigrate is an entrepreneurial act.”

— Edward Roberts, founder
MIT Entrepreneurship Center

Introduction: The Hidden Advantage of Immigration

Americans today would like to see stronger economic growth. But they are at a loss as to where that growth might come from. One answer is unexpected: immigrants. Indeed, the hidden advantage of immigrants is that they contribute mightily to the U.S. economy.

Immigrants remind us of the promise of economic advancement. It is hard to leave one's native land and make out for a new country with a foreign culture. But the allure of growth has led immigrants to flock to America's shores. Immigrants cling to the belief that in America, opportunities exist that will allow them to improve the lives of their families.

The optimism embodied by immigrants is reflected in what they say about our country. In his autobiography, Michael Pupin, the inventor, author, and 19th-century immigrant, recalls his very first glimpse of America:

New York appealed to my imagination more than any other place in the world. The impression which it made upon my mind as the immigrant ship moved into New York Harbor on that clear and sunny March day when I first passed through Castle Garden, the Gate of America, never faded.

Pupin writes specifically about New York, but the sense of possibility his imagery evokes would resonate with the countless other immigrants who have come to call America home, regardless of where they settled.

Sometimes immigrants sustain a vision for America that transcends even that of native-born citizens. Four of the first six secretaries of the U.S. Treasury were immigrants, as the late Thomas McCraw illuminates in his book “The Founders and Finance.” Alexander Hamilton, born in the Caribbean country of St. Croix, saw that international capital markets could alleviate America's debt troubles, a possibility that did not occur to the other, more provincial, landed, founders. The work of Hamilton and other early immigrant financiers laid the institutional foundation upon which our modern government and financial systems rest.

Fast-forward some 200 years from the days of Hamilton, and immigrants continue to make their mark on the American economy.

Immigrants serve as catalysts for growth in a number of ways. First, they work. Data from the U.S. Census Bureau show that in 2011 immigrants accounted for 13% of the total U.S. population, but for almost 16% of the U.S. civilian labor force. What's more, over the last decade (2003 to 2012), immigrants have

contributed to more than half of the increase in the number of workers in America's labor force.

Over the long-term, an economy grows by adding workers and increasing productivity — that is, getting

Immigrants have proven to be remarkably innovative. Research by Vivek Wadhwa shows that immigrants were responsible for nearly one-quarter of all international patent applications filed by U.S. residents in 2006.

more output from each input. A principal way an economy can improve its productivity is through innovation. Innovation refers to doing things in new ways, or doing entirely new things altogether.

Immigrants have proven to be remarkably innovative. Research by Vivek Wadhwa shows that immigrants were responsible for nearly one-quarter of all international patent applications filed by U.S. residents in 2006. Furthermore, an analysis by the economist Jennifer Hunt reveals that immigrants are more likely than natives to commercialize a patent and to publish articles for scholarly publications. These patents and publications represent the new ideas that drive innovation in our economy.

Entrepreneurship is another crucial factor that allows an economy to expand. Indeed, immigrants have a proven track record of starting new businesses. A report by the Fiscal Policy Institute indicates that in 2010 immigrants accounted for 18% of all small business owners despite representing 13% of the total U.S. population in that year. In the two decades from 1990 to 2010, immigrants were responsible for just under 30% of the total growth in the number of people who own a small business.

But immigrant entrepreneurship is not limited to just small businesses. In fact, immigrants are involved in America's most promising new industries. Wadhwa has found that among all major technology and engineering firms founded in Silicon Valley between 1995 and 2005, more than half were founded by an immigrant. Nationally, over a quarter of all major technology and engineering firms founded over this period were started by an immigrant. Collectively, these immigrant-founded firms generated more than \$52 billion in sales in 2005 and employed just under 450,000 worldwide.

Every year Fortune magazine's "Fortune 500" list identifies America's biggest and most important companies. It is useful to know who is responsible for starting these firms. A report by the Partnership for a New American Economy attempts to do just this, examining the ethnic backgrounds of the founders of all the companies listed in the 2010 edition of the Fortune 500. The results are striking, showing that 41% of all Fortune 500 companies in 2010 were founded by either an immigrant or the child of an immigrant. These include major companies recognizable to any American household, such as AT&T, Kraft, Google, Yahoo!, and eBay.

But immigrants could do even more. It is important to consider the barriers that U.S. immigration laws represent.

America's current immigration policies discriminate against workers, instead giving preference for Green Cards to immigrants who come to the U.S. for family reunification. Indeed, data from the OECD indicate that only 7% of U.S. Green Cards distributed in 2010 went to workers, while 73% of Green Cards went for family reunification.

This is in stark contrast to other developed countries, which seem to better understand that attracting the world's most talented immigrants is crucial to boosting their economic growth. In 2010 South Korea and Switzerland both allocated more than 80% of their Green Cards to work-based immigrants. The U.S. faces global competition for immigrants, and it would be wise to remove some of the barriers that encourage immigrants to go elsewhere.

If America's immigration laws were different, our growth would come faster. In a forthcoming book, the economist Richard Vedder estimates that if the U.S. had adopted a pro-growth immigration policy framework in the 1960s, real GDP growth would have averaged approximately 3.1% in the years 1970 to 2011, a rate substantially higher than the actual average growth rate of 2.8% during those years. This

The results are striking, showing that 41% of all Fortune 500 companies in 2010 were founded by either an immigrant or the child of an immigrant.

means that U.S. GDP would have been approximately \$2 trillion greater in 2011 than was actually the case.

Americans today are wondering how current immigration laws should be restructured to achieve faster growth in the future. Many immigration reform proposals exist, and it is important that each be scrutinized carefully. However, this handbook is just the beginning of a new endeavor by the George W. Bush Institute to address the immigration question. Rather than offer policy solutions, the goal of this book is to simply lay out the facts underlying the immigration and economic growth discussion.

Section one of the book provides an overview of the current immigrant presence in the America. Section two illuminates many of the benefits immigrants provide to our economy and explains how immigrants increase economic growth. The effects of immigrants, of course, are not all positive, and section three addresses some common arguments against immigration. Of special note is the often controversial issue of illegal immigration. While section three

President Lyndon B. Johnson famously recalled the contributions of immigrants, saying that America “...flourished because it was fed from so many sources — because it was nourished by so many cultures and traditions and peoples.”

does mention the illegal immigrant population, this book for the most part does not distinguish between illegal and legal immigrants. The last section of the book shows how increasing the share of immigrants in the U.S.

would benefit citizens and lead to faster economic growth.

The Immigration and Nationality Act of 1965 represents the last major U.S. immigration policy overhaul. In a speech delivered in front of the Statue of Liberty prior to signing the Act, President Lyndon B. Johnson famously recalled the contributions of immigrants, saying that America “...flourished because it was fed from so many sources — because it was nourished by so many cultures and traditions and peoples.” Although many of the immigration policies of Johnson’s era require updating, Johnson’s quote captures perfectly why immigrant reform is so important today. More than ever, America needs to renew its commitment to welcoming those people from around the world who embark upon the entrepreneurial

act of immigrating to our shores.

Starting with a December conference co-sponsored with the Federal Reserve Bank of

Dallas, the Bush Institute aims to convene a national discussion that yields substantive solutions to America’s immigration problems. Communicating the positive economic contributions of immigrants is the first step to helping Americans recognize hidden advantages of immigration. The Institute is confident that bipartisan solutions exist, and that when properly informed, Americans agree more on this topic than they realize.

More than ever, America needs to renew its commitment to welcoming those people from around the world who embark upon the entrepreneurial act of immigrating to our shores.

— Matthew Denhart
November 2012

Immigrant Presence in the U.S.



Immigrants are a strong part of America's past.



Surprising Fact: Immigrants account for 13% of the entire U.S. population, up from only 4.7% in 1970.

The United States has often been called “A Nation of Immigrants.” And it is true, nearly all people living in the U.S. today are immigrants themselves, or are the descendants of immigrants who came to this country earlier in its history.

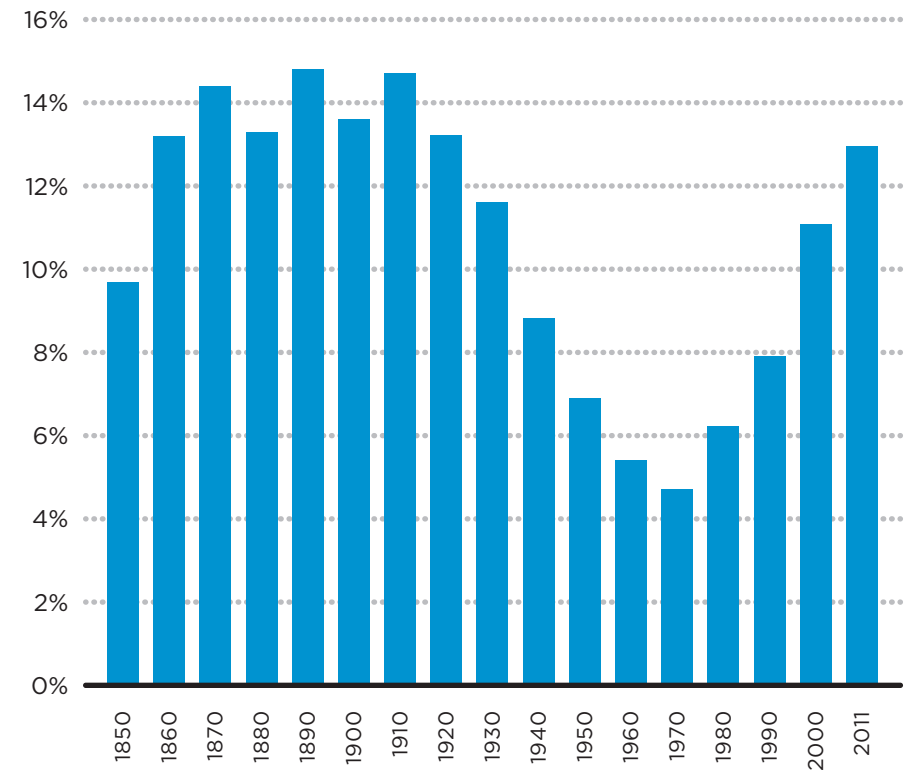
Today, the U.S. has more immigrants in its population than during any other time in history. Indeed, the U.S. Census Bureau estimates that 40.4 million immigrants were in the country in 2011.¹ This is up from approximately 19.8 million immigrants as recently as 1990 and from the 2.24 million immigrants in America way back in 1850.

Of course, the U.S. population as a whole has grown dramatically since 1850. Therefore, to compare across different periods in history, it is important to examine the immigrant population as a share of the entire U.S. population. This is calculated by dividing the total number of immigrants in the U.S. by the country's total population, and is displayed in the chart on the next page.

The share of immigrants in the population was 9.7% in 1850, but grew to 13.2% by 1860. For the next 50 years, immigrants accounted for around 13% to 14% of the population, a proportion slightly higher than today. However, after peaking at 14.7% in 1910, the proportion of immigrants in the country declined every decade for the next 70 years. By 1970, immigrants represented only 4.7% of the U.S. population. But a rebound was in order, and by 2000 the immigrant share of the population was above 11%.² In 2011, 13.0% of all U.S. residents were immigrants, more than one in every eight persons.³

1 U.S. Census Bureau, *Selected Characteristics of the Native and Foreign-Born Populations*, 2011 American Community Survey.
 2 U.S. Census Bureau, *Population Division, Nativity of the Population and Place of Birth of the Native Population: 1850 to 1990*, by Campbell Gibson and Emily Lennon, October 31, 2011, <http://www.census.gov/population/www/documentation/twps0029/tab01.html>.
 3 U.S. Census Bureau, *Selected Characteristics of the Native and Foreign-Born Populations*, 2011 American Community Survey.

Proportion of the U.S. Population that is Foreign-Born, 1850-2011



Source: U.S. Census Bureau, 2011; American Community Survey, 2011.

Immigrants come to the U.S. more than to any other country in the world.



Surprising Fact: Of all immigrants worldwide, one in five comes to the U.S.

Some 215 million people worldwide, or approximately 3% of the world's population, live in a country that is not their country of birth.⁴ This makes them an “international migrant,” more commonly known as an “immigrant.”

When these immigrants leave their home countries, they move all over the world. But the most common destination, by far, is the United States. In 2010, 19.8% of all immigrants worldwide lived in the U.S., almost three and a half times as many immigrants as lived in the country with the second-highest share of the world's immigrants, the Russian Federation, with 5.7%. Germany comes in third with 5% of worldwide immigrants living in its country, followed by Saudi Arabia with 3.4% and Canada with 3.3%.⁵

Although the U.S. attracts the largest share of all immigrants worldwide, it is important to bear in mind that the U.S. is a large country in terms of both geography and population. Thus, when examining the number of immigrants in countries as a percentage of total population, the U.S. no longer ranks at the top. Rather, that award goes to Qatar, the Persian Gulf state where immigrants make up 87% of the population. Other countries with extraordinarily high immigrant-to-population ratios include the Mediterranean principality of Monaco (72%), the United Arab Emirates (70%), Kuwait (69%), and another principality, Andorra (64%).⁶

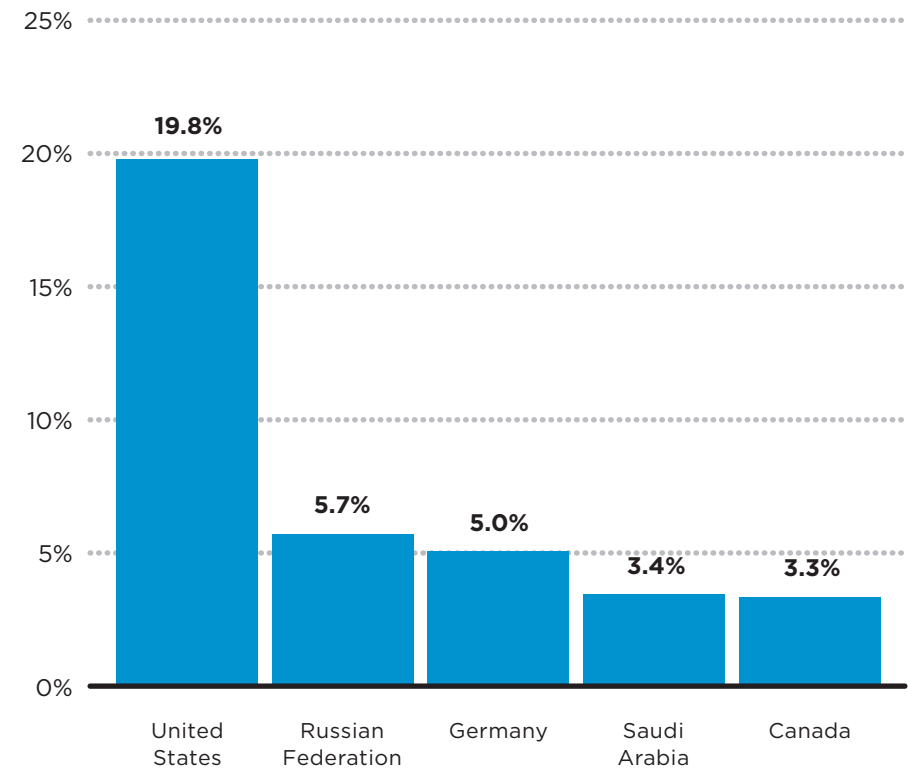
⁴ *Migration and Remittances Factbook 2011* (Washington, DC: World Bank, 2011).

⁵ *Ibid.*

⁶ *Ibid.*

Percentage Share of All Foreign-Born People Worldwide Who Reside in Each Country, 2010

(Top Five Countries Shown in Graph)



Source: Author's Calculations; The World Bank, "Migration and Remittances Factbook 2011."

Most immigrants to the U.S. come from Latin America and Asia...



Surprising Fact: More than half of all immigrants in the U.S. are from Latin America.

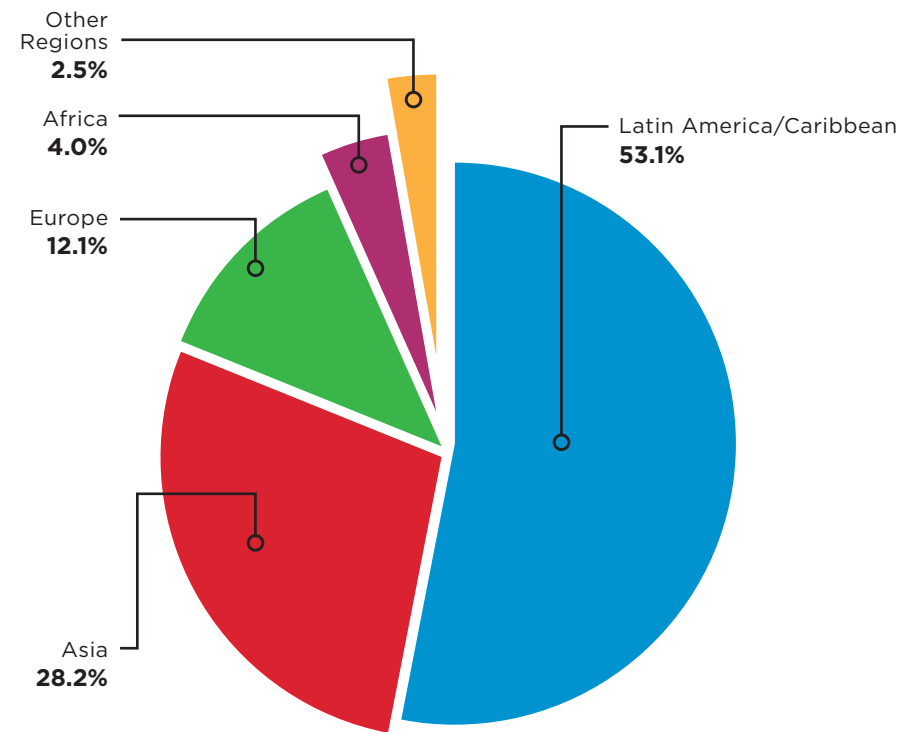
Immigrants come to the U.S. from all corners of the globe. But the majority, more than 53%, of immigrants to the U.S. come from Latin American and Caribbean countries.

This category of countries includes those in South America, Central America, and the Caribbean. That these regions send the most immigrants to the U.S. is rather unsurprising given their close geographic proximity.

Asia, whose natives represented 28.2% of all U.S. immigrants in 2010, is the region with the second-highest percentage of immigrants in America. Europe was once the largest supplier of immigrants to the U.S., but by 2010 only around 12% all U.S. immigrants were born in a European country. Still, that's approximately three times as many immigrants as come from the continent of Africa. "Other" regions, which include Northern America and Oceania, account for the final 2.5% of immigrants in America.⁷

⁷ U.S. Census Bureau, *The Foreign-Born Population in the United States: 2010*, by Elizabeth M. Grieco, Yesenia D. Acosta, et al (2012).

Percentage Share of Total U.S. Foreign-Born Population by World Region, 2010



Source: U.S. Census Bureau, "The Foreign-Born Population in the United States: 2010."

... And Mexico sends the most immigrants to the U.S. of any other country...



Surprising Fact: The U.S.-Mexico border is the largest immigration corridor in the world.

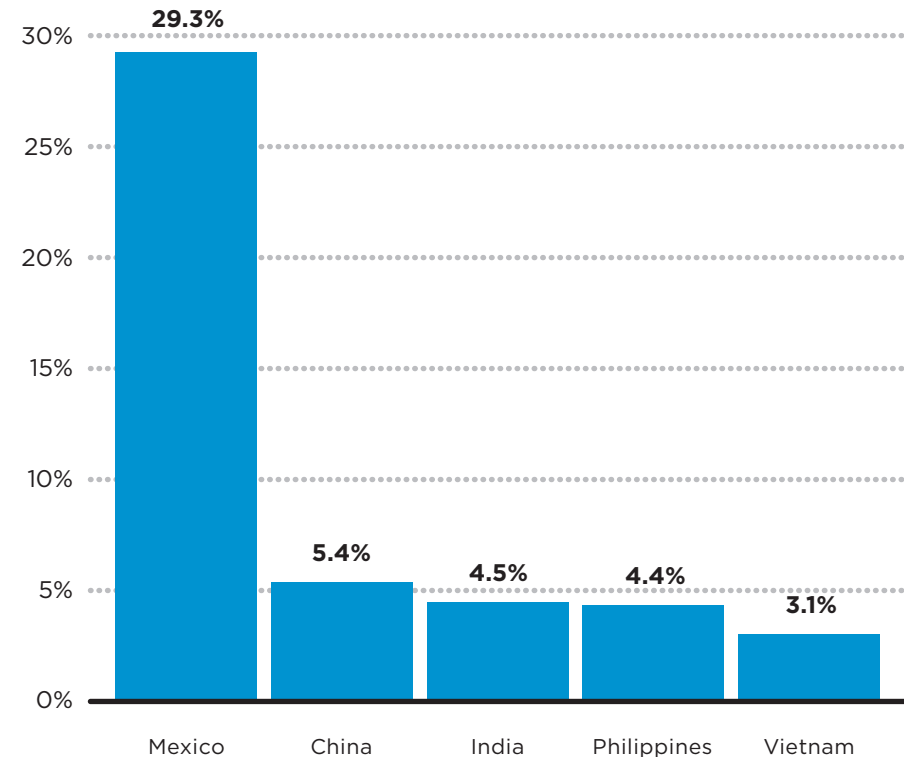
More immigrants to the U.S. come from Mexico than from any other country in the world. Indeed, according to the World Bank, the U.S.-Mexico border is the largest immigration corridor in the world.⁸

In 2010, approximately 11.6 million Mexican-born immigrants lived in the U.S., accounting for nearly 30% of all immigrants living in the U.S. at the time. This is a very large proportion. The countries with the next-highest shares of all U.S. immigrants included: China (5.4%), India (4.5%), the Philippines (4.4%), and Vietnam (3.1%). These four countries combined have fewer immigrants in the U.S. than Mexico.⁹

⁸ *Migration and Remittances Factbook 2011* (Washington, DC: World Bank, 2011).
⁹ U.S. Census Bureau, *The Newly Arrived Foreign-Born Population of the United States: 2010*, by Nathan P. Walters and Edward N. Trevelyan (2011).

Percentage Share of Total U.S. Foreign-Born Population by Country of Birth, 2010

(Top Five Countries Shown in Graph)



Source: U.S. Census Bureau, "The Newly Arrived Foreign-Born Population of the United States: 2010."

... Recent immigrants to the U.S. are less likely to be from Mexico.



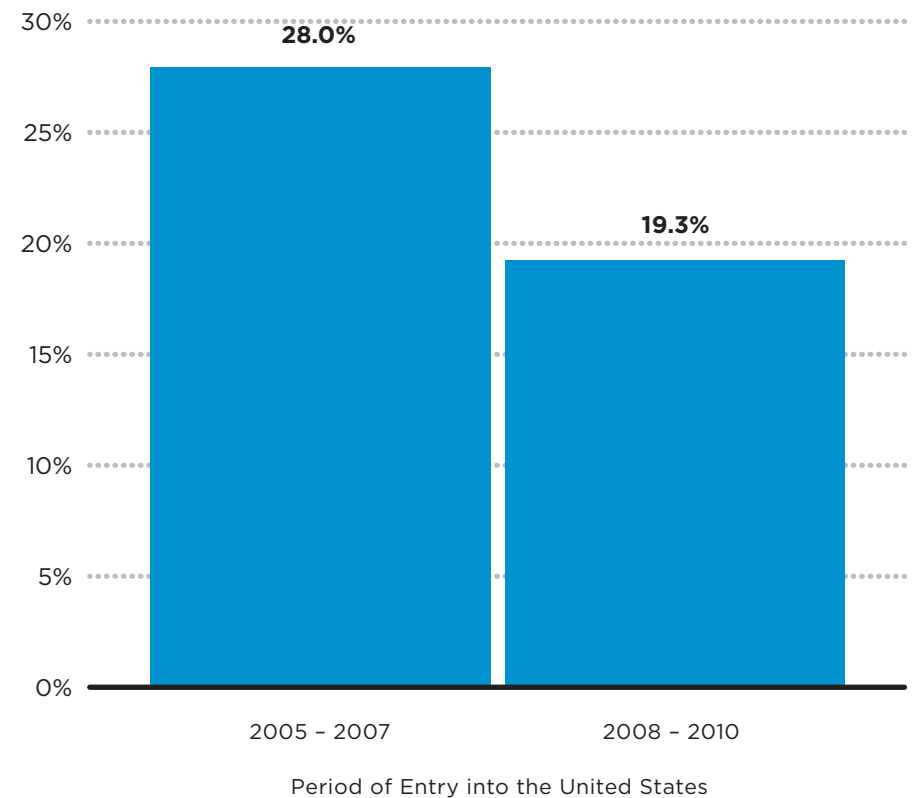
Surprising Fact: Less than 20% of recent immigrants were born in Mexico.

Recent immigrants to America are less likely to have been born in Mexico. The chart on the previous page showed that in 2010 approximately 30% of all U.S. immigrants were born in Mexico.

However, as is shown in the chart on the next page, of all immigrants arriving to the U.S. between the years 2005 and 2007, a slightly smaller percentage (28%) was born in Mexico. And when examining the countries of birth for immigrants arriving to the U.S. even more recently, between 2008 and 2010, one finds that only 19.3% were born in Mexico. This is a dramatic reduction.

While a smaller share of immigrants has been coming from Mexico, larger shares have been arriving from China and India. Of all immigrants arriving to the U.S. since 2008, 8.6% were born in China and 7.7% were born in India. These percentages represent an increase: Among all immigrants arriving to the U.S. before 2005, only 5.1% were from China and only 3.9% were from India.¹⁰

Percentage Share of All New Foreign-Born Arrivals to the U.S. Who Were Born in Mexico, 2005-2007 vs. 2008-2010



Source: American Community Survey Briefs, "The Newly Arrived..."

¹⁰ U.S. Census Bureau, *The Newly Arrived Foreign-Born Population of the United States: 2010*, by Nathan P. Walters and Edward N. Trevelyan (2011).

The majority of all immigrants to the U.S. live in just four states ...



Surprising Fact: California is home to one-fourth of all immigrants in the U.S.

Where do immigrants live once they arrive in the U.S.? All across the country, of course, but they are concentrated in a handful of states. Approximately one in four immigrants in the U.S. lives in California.

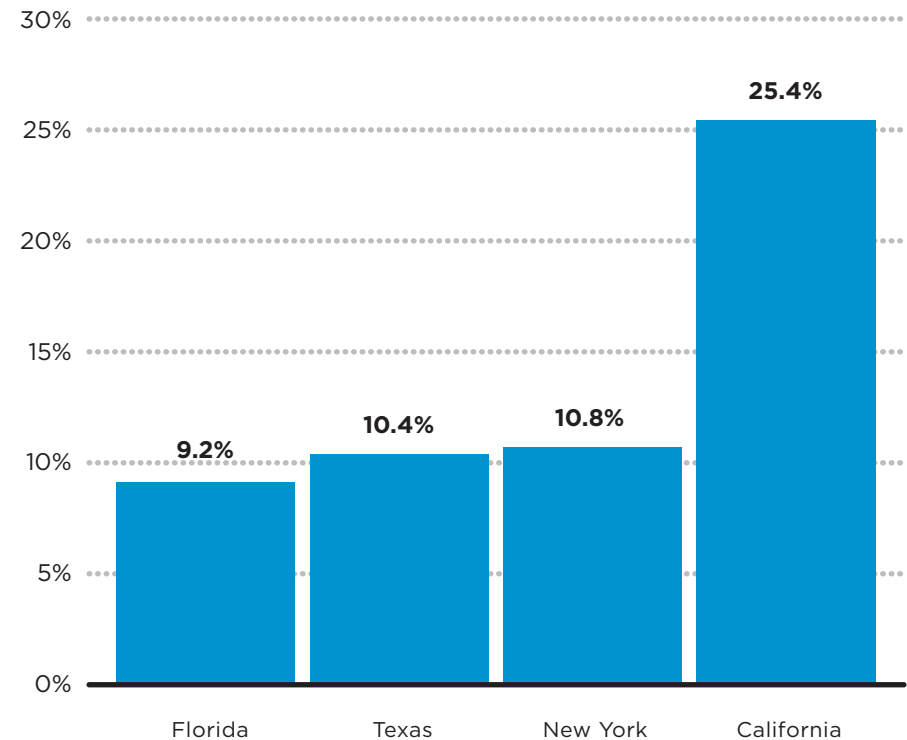
California has almost as many immigrants living in its state as the 40 states with the fewest immigrants combined. New York has the second-highest share of immigrants with 10.8% of the U.S. total. Texas is close behind with 10.4%, as is Florida with 9.2% of all U.S. immigrants living in its state. Together, these four states are home to more than half of the country's immigrant population.¹¹

It is true that these four states have large overall populations. However, the immigrant share of each of these state's overall populations is still quite large. In 2010, 27.2% of all California residents were immigrants. Similarly, 22.2% of New York residents were born in a different country, and the same was true of 19.4% of Floridians and 16.4% of Texans. No matter how you slice it, these four states are very immigrant intensive.¹²

In four other states, immigrants also represent at least 15% of the total state population. These include: New Jersey (21.0%), Nevada (18.8%), Hawaii (18.2%), and Massachusetts (15.0%).¹³

Percentage of Total U.S. Foreign-Born Population Residing in Each State, 2010

(Top Four States Shown in Graph)



Source: U.S. Census Bureau, "The Foreign-Born Population in the United States: 2010."

¹¹ U.S. Census Bureau, The Foreign-Born Population in the United States: 2010, by Elizabeth M. Grieco, Yesenia D. Acosta, et al (2012).

¹² "Immigration Data Hub," Migration Policy Institute Data Hub, <http://www.migrationinformation.org/datahub/>.

¹³ Ibid.

... But immigrants' presence is growing in other states too.



Surprising Fact: Southern states have seen the largest growth in their immigrant populations.

Although in the past immigrants have settled down in mostly just a handful of states, this is beginning to change. Between 2000 and 2010, the five states with the largest percentage growth in immigrants were Alabama (92.1%), South Carolina (88.4%), Tennessee (81.8%), Arkansas (78.7%), and Kentucky (75.1%).

One unifying characteristic of these states is that they are all geographically concentrated in the South. Two other southern states are in the top 10 when it comes to the growth in the state's immigrant population. These include North Carolina, where the immigrant population increased 67.2%, and Georgia, where the number of immigrants grew 63.3% between 2000 and 2010.¹⁴

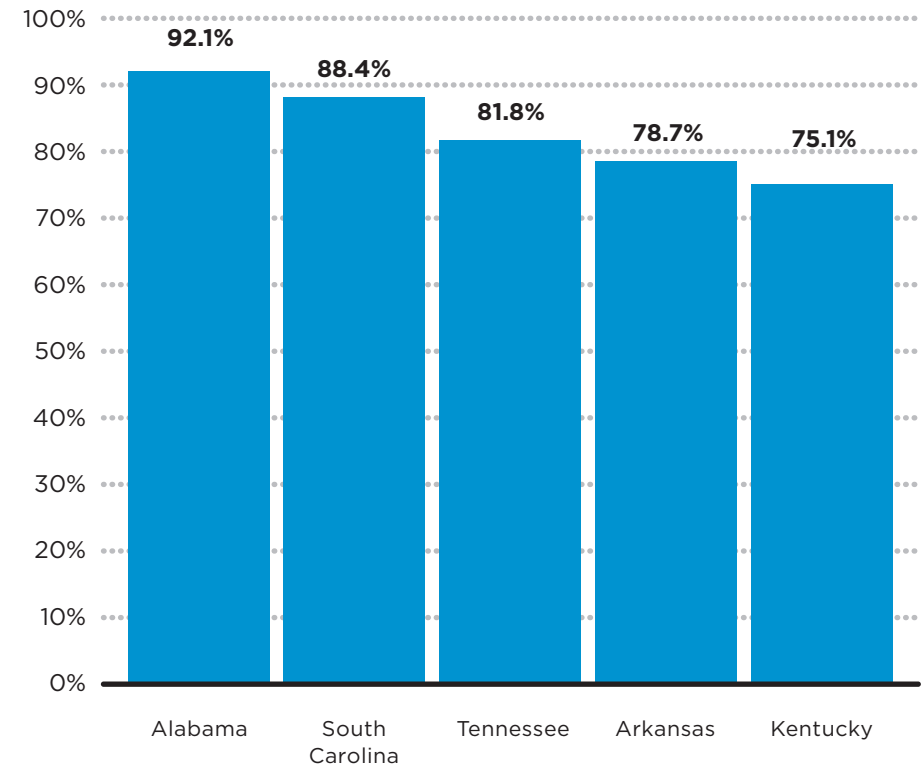
It is worth noting that the reason states like California are not at the top of the list in terms of the percentage growth in their immigrant populations is that these states already have such a large number of immigrants. Therefore, when one more immigrant moves to the state, the effect on the percentage growth of all immigrants in the state is smaller. But this does not mean that immigrants are no longer moving to the states with traditionally large immigrant populations. On the contrary, the four states with the *largest absolute* increase in the number of immigrants between 2000 and 2010 were California, Texas, Florida, and New York.¹⁵ Therefore, the takeaway is not that immigrants are no longer moving to states like California, but that they are also now moving into states like Alabama and South Carolina.

¹⁴ "Immigration Data Hub," Migration Policy Institute Data Hub, <http://www.migrationinformation.org/datahub/>.

¹⁵ Author's calculations, data from: "Immigration Data Hub," Migration Policy Institute Data Hub, <http://www.migrationinformation.org/datahub/>.

Percentage Growth in Total Foreign-Born Population by State, for the Period 2000-2010

(Top Five States Shown in Graph)



Source: Migration Policy Institute Data Hub; U.S. Census Bureau.

America's immigrant population will grow dramatically in the future.



Surprising Fact: The number of immigrant net inflows will rise almost fivefold to approximately 2.3 million in 2015.

The number of immigrants coming to the U.S. is expected to grow during the coming decade. In 2010, the U.S. had a net inflow of approximately 440,000 immigrants.¹⁶

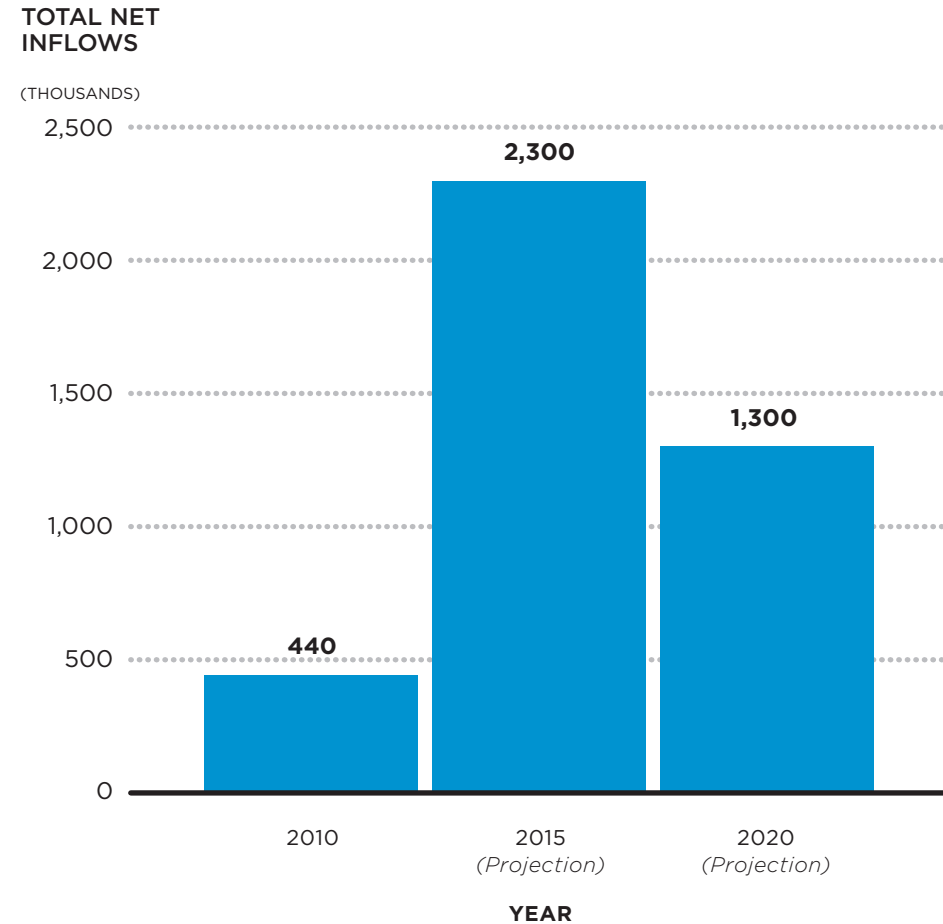
This means that 440,000 more immigrants moved to the U.S. in 2010 from other countries than moved to other countries from the U.S.

According to the projections of the nonpartisan Congressional Budget Office, the number of immigrant net inflows will rise almost five-fold to approximately 2.3 million in 2015. Immigrant net inflows are projected to then fall somewhat to 1.3 million in 2020. Although the 2020 figure is smaller than the high of 2015, it still represents more than three times the number of immigrants entering the country, on net, in 2010.¹⁷

The large increase in the net inflow of immigrants is due largely to the expected U.S. economic recovery following the recession of 2007-2009. During years of poor economic performance, fewer immigrants tend to come to the U.S., and immigrants already in the U.S. tend to leave the country at a higher rate than they would in years of strong economic growth.¹⁸ However, many believe the increase in immigration to the U.S. will not just be a temporary phenomenon following the current recession. Indeed, the Pew Hispanic Center estimates that by the year 2050, 19% of the entire U.S. population will have been born in a different country, up from 13.0% in 2011.¹⁹

¹⁶ Immigrant Net-Inflows includes the flow of legal permanent residents (those typically with Green Cards), temporary legal residents (tourists, students, others with visas), and unauthorized immigrants.
¹⁷ Congressional Budget Office, CBO's Labor Force Projections Through 2021 (Washington, DC: CBO, 2011), <http://www.cbo.gov/sites/default/files/cbofiles/ftpdocs/120xx/doc12052/03-22-laborforceprojections.pdf>.
¹⁸ Ibid.
¹⁹ Jeffrey S. Passel and D'Vera Cohn, U.S. Population Projections: 2005-2050, report (Washington, DC: Pew Research Center, 2008), <http://www.pewhispanic.org/files/reports/85.pdf>.

Foreign-Born Net Inflows, Projected through 2020



Source: Congressional Budget Office, 2011.

Immigrants and Economic Growth



Immigrants are more likely to live in a married-couple household.



Surprising Fact:
In 2011, 58.3% of immigrants were married, compared to 46.5% of natives.

Economic studies have found strong evidence that married couples, on average, are more productive, enjoy higher standards of living, higher incomes, and better health outcomes, compared to single individuals.

Moreover, research finds that children who grow up in married-couple households share these benefits, and also have improved educational outcomes and brighter futures as adults.²⁰

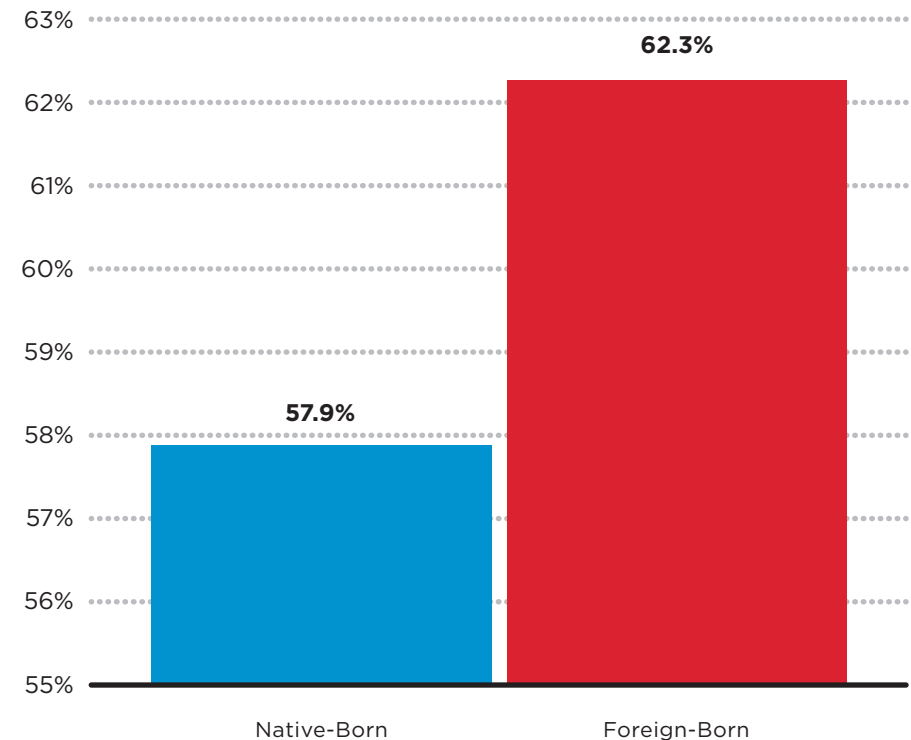
Clearly, marriage is good for the economy, and it is notable that immigrants are more likely than natives to be married. In 2011, 58.3% of immigrants over the age of 15 were married, compared to 46.5% of natives. Furthermore, as is shown in the chart, 62.3% of immigrant households were headed by a married couple in 2011, compared to 57.9% of native households.

Divorce has highly negative effects, especially for the children of divorced parents. The data show that immigrants are less likely to be divorced: 10.9% of immigrants over the age of 15 reported being divorced in 2011, compared to 13.6% of natives.²¹

²⁰ There is a vast literature on the economic gains of marriage. For a review of the literature, and a review of the statistical techniques employed in various studies, see: David C. Ribar, *What Do Social Scientists Know About the Benefits of Marriage? A Review of Quantitative Methodologies*, working paper no. 998 (Bonn: IZA, 2004), <http://ftp.iza.org/dp998.pdf>.

²¹ U.S. Census Bureau, *Selected Characteristics of the Native and Foreign-Born Populations*, 2011 American Community Survey.

Percentage of All Households Headed by a Married Couple, 2011



Source: U.S. Census Bureau, "Selected Characteristics of the Native and Foreign-Born Populations."

Immigrants make up a substantial portion of the U.S. labor force.



Surprising Fact: Immigrants account for 15.9% of the U.S. labor force, but only 13% of the population.

The civilian labor force refers to all people in the U.S. who report that they are working or are in search of work.²² As the chart shows, immigrants make up a substantial component of the U.S. labor force.

The bottom bar in the graph shows the immigrant share of the U.S. population for the years 2003 to 2011. The top bar shows the percentage of the total U.S. civilian labor force that immigrants represent. What is immediately clear is that immigrants have consistently had a more prominent role in the labor force than one would expect, given their representation in the country's population. In 2003, 11.7% of all U.S. residents were immigrants, but immigrants represented 14.3% of the labor force. Throughout the 2000s, both these proportions grew, and by 2011, immigrants accounted for approximately 13% of the country's population and 15.9% of the civilian labor force.²³

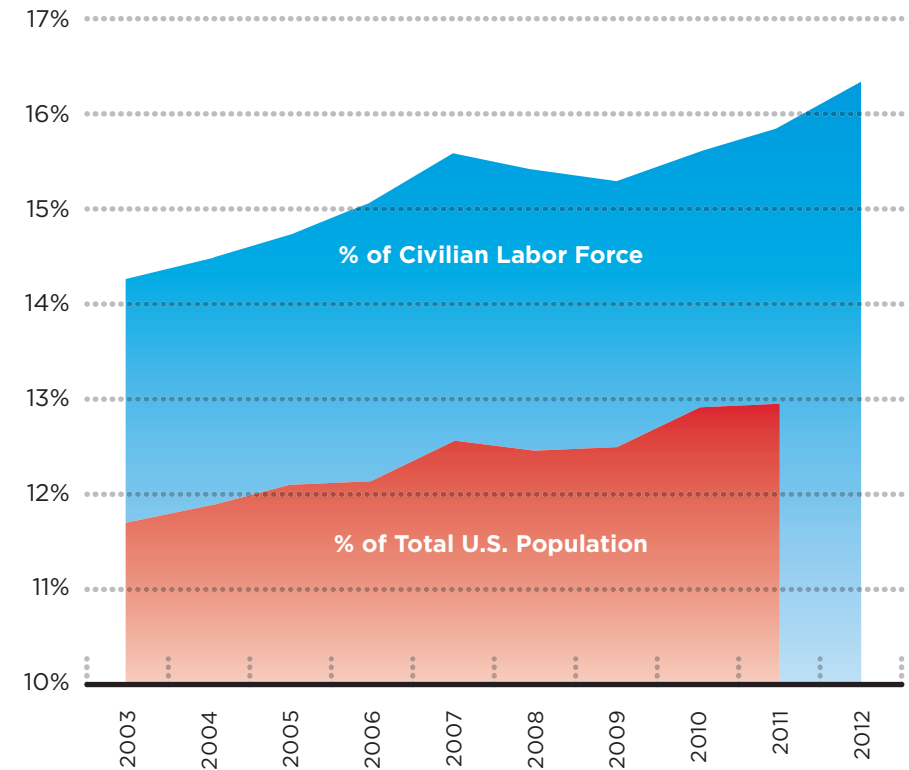
The reason immigrants represent a larger share of the labor force than their share of the population is because they participate in the labor force at a higher rate than natives. In 2011, approximately 67.1% of immigrants 16 years of age and older were in the labor force, compared to only 62.9% of native-born citizens.²⁴ This is evidence that, by and large immigrants want to work. This allows them to earn a living and helps our economy grow.

²² Readers should note that the civilian labor force does not include those serving in the military or the institutionalized population.

²³ Author's Calculations, U.S. Census Bureau, Current Population Survey: Annual Social and Economic Supplement 2012; and U.S. Census Bureau, *Selected Characteristics of the Native and Foreign-Born Populations*, 2011 American Community Survey.

²⁴ U.S. Census Bureau, *Selected Characteristics of the Native and Foreign-Born Populations*, 2011 American Community Survey.

Foreign-Born as a Percentage of the U.S. Civilian Labor Force and Total U.S. Population, 2003-2012



Source: Author Calculations; U.S. Census Bureau: Annual Social and Economic Supplement 2012.

Immigrants expand the size of America's labor force.



Surprising Fact: Immigrants are responsible for more than half of the total growth of the U.S. labor force over the past decade.

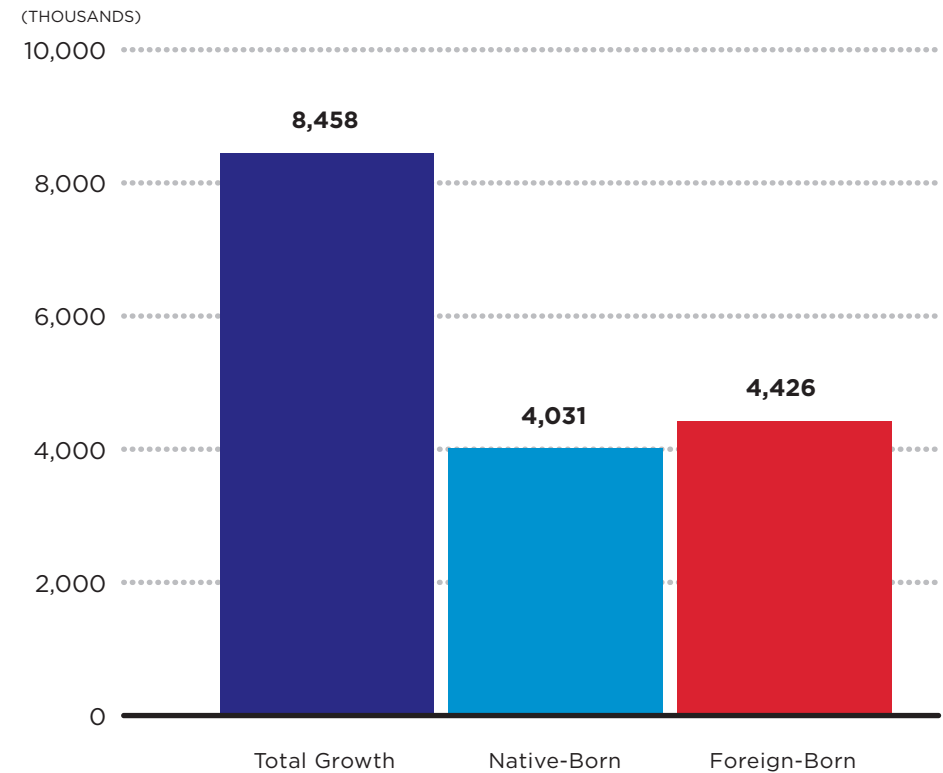
The growth in the U.S. labor force over the past decade would have been much smaller if not for immigrants.

Between 2003 and 2012, the U.S. labor force added slightly more than 8.4 million workers. More than 4.4 million of these new workers were immigrants, while around 4 million of the new workers were native-born citizens.²⁵

This means that more than half of the growth in new workers over the past decade is attributable to immigrants. This is remarkable, especially considering that immigrants averaged only around 11% to 13% of the total U.S. population during those years.

²⁵ U.S. Census Bureau, Current Population Survey: Annual Social and Economic Supplement 2012.

Growth in the Number of Foreign-Born and Native-Born Workers, 2003-2012



Source: Author Calculations; U.S. Census Bureau: Annual Social and Economic Supplement 2012.

Note: Refers to the growth of the U.S. Civilian Labor Force.

Immigrants are more likely than natives to be employed.



Surprising Fact: If native-born workers were employed at the same rate as immigrants, the economy would have had an additional 8.9 million workers in 2011.

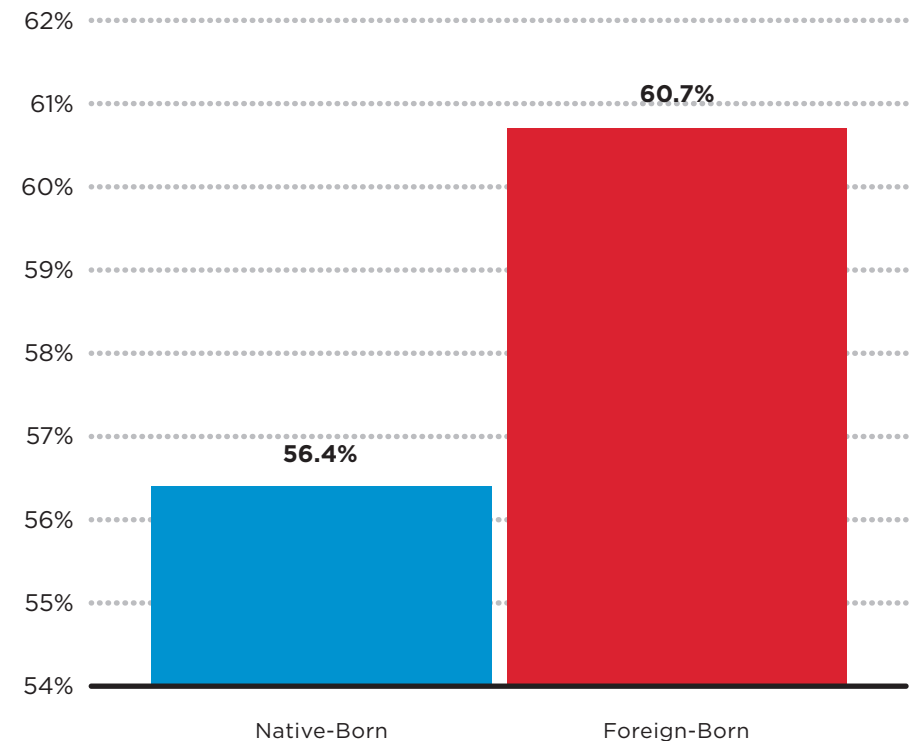
In order for an economy to grow, it needs workers, and lots of them. In 2011, the U.S. had approximately 140 million people over the age of 16 who were employed.

Of these, 117 million were native-born citizens of the U.S., and 23 million were immigrants.²⁶

Although the U.S. has a higher number of total native-born workers, immigrants are employed at a higher percentage. In 2011, 60.7% of immigrants age 16 and older were employed, compared to only 56.4% of native-born citizens.²⁷ While a 4.3 percentage point difference in the employment rates may not seem like a large number, if native-born workers were employed at the same rate as immigrants, the economy would have had an additional 8.9 million workers in 2011.²⁸

²⁶ Author's calculations, Data from: U.S. Census Bureau, *Selected Characteristics of the Native and Foreign-Born Populations*, 2011 American Community Survey.
²⁷ U.S. Census Bureau, *Selected Characteristics of the Native and Foreign-Born Populations*, 2011 American Community Survey.
²⁸ Author's calculations, Data from: U.S. Census Bureau, *Selected Characteristics of the Native and Foreign-Born Populations*, 2011 American Community Survey.

Percentage of All People Age 16 and Older Who Are Employed, 2011, Foreign-Born vs. Native-Born



Source: U.S. Census Bureau, "Selected Characteristics of the Native and Foreign-Born Populations."

Immigrants are more likely to be self-employed and work in the private sector.



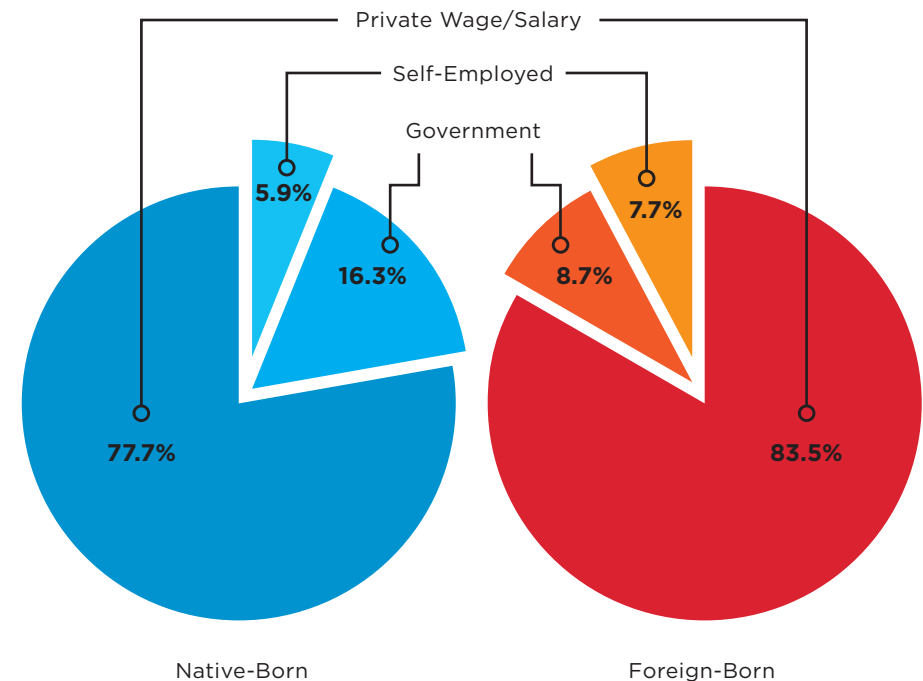
Surprising Fact: Immigrants are more likely than natives to create their own jobs.

Not only are immigrants more likely to participate in the labor force and be employed, they are also more likely than native-born citizens to create their own jobs and to work in the private sector.

In 2011, 83.5% of immigrants were private wage and salary workers, compared to only 77.7% of natives.²⁹ Furthermore, 7.7% of immigrants were self-employed in an unincorporated business, compared to only 5.9% of natives.³⁰ That immigrants are self-employed at a higher rate than natives is significant because it indicates that immigrants often create their own jobs and exhibit characteristics of entrepreneurship.

Native-born workers do constitute a larger share of workers in one specific employment sector: government jobs. While many government jobs are certainly necessary and beneficial to our country, these jobs must be funded by taxpayers. Private-sector jobs, on the other hand, are self-sustaining. Therefore, our economy grows more when workers are in the private sector, rather than working for the government.

Workers by Sector of Occupation, 2011, Foreign-Born vs. Native-Born



²⁹ U.S. Census Bureau, *Selected Characteristics of the Native and Foreign-Born Populations*, 2011 American Community Survey.

³⁰ Self-employed individuals who report working for an incorporated business are classified as "Private Wage and Salary" workers.

Source: U.S. Census Bureau, "Selected Characteristics of the Native and Foreign-Born Populations."

Note: "Self-Employed" is defined by the American Community Survey as those people who own an unincorporated business.

U.S. immigrants send billions of dollars to other countries, helping other countries grow.

Surprising Fact: Developing countries often receive more support from remittances than from official development assistance.

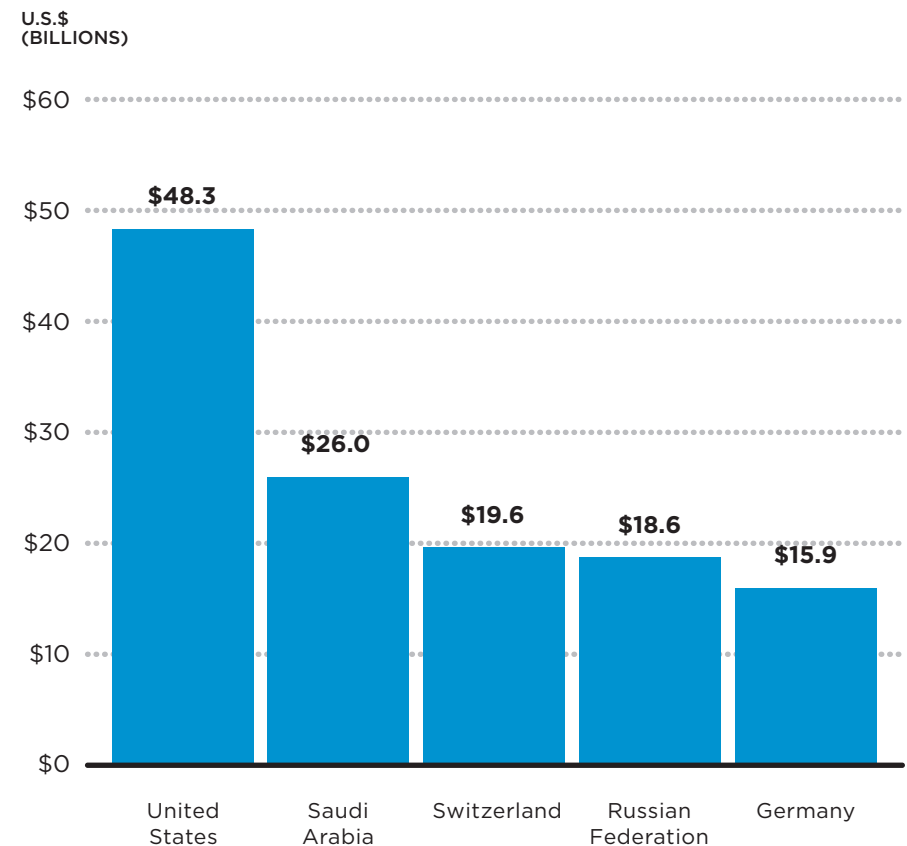
Every year immigrants living in the U.S. send billions of dollars abroad in the form of remittances. In 2009, American residents sent \$48.3 billion in remittances to people in other countries, the most of any other country in the world.

Remittances are often sent to family members back in an immigrant's home country, and they are a crucial source of income for many people around the world. In fact, total worldwide remittances to developing countries equaled \$307 billion in 2009. This is more than 2.5 times the amount of total worldwide official development assistance sent to developing countries in 2009 (\$120 billion) and nearly as much money as developing countries received in foreign direct investment (\$359 billion). The World Bank notes that remittances constitute up to 10% of GDP in many developing countries. And these dollars are not wasted; rather, research shows that they help reduce poverty and "lead to increased investments in health, education, and small businesses."³¹ By working in the U.S., immigrants help grow the American economy, while helping the economies of other countries to grow too.

³¹ *Migration and Remittances Factbook 2011* (Washington, DC: World Bank, 2011).



Amount of Money Sent Abroad as Remittances, 2009
(Top Five Countries Shown in Graph)



Source: The World Bank "Migration and Remittances Factbook 2011."

Immigrants are of an age when they can work...



Surprising Fact: More than 70% of immigrants are between the ages of 25 and 64, compared to only 50% of natives.

A population pyramid is the graphical display of a society's age structure, plotting the percentage of the total population that falls between various age categories.

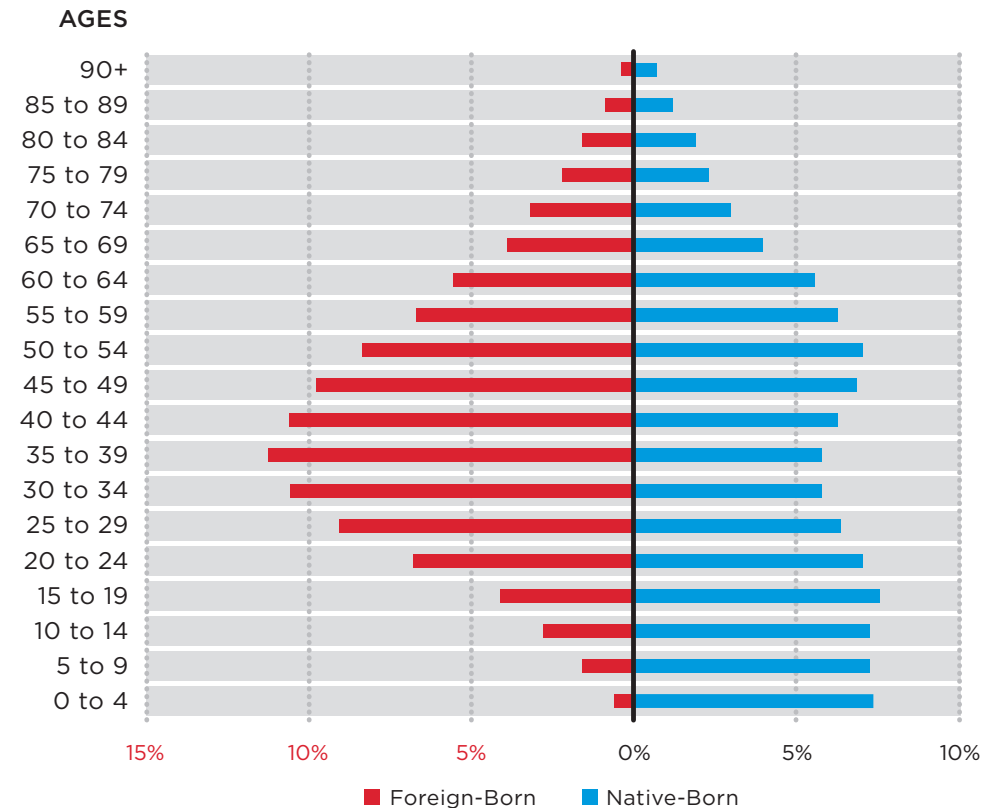
It is generally believed to be desirable when the shape of the population pyramid indeed reflects that of a pyramid. That is to say the number of people in the society is inversely related to age, such that the population pyramid shows a large base of young people with each subsequent age group representing a slightly smaller percentage share of the total population. This type of age structure is advantageous because it means a sufficient number of young people exist to produce enough goods and services to provide for themselves as well as the older population.

The chart shows that among native-born U.S. citizens, the shape of the population pyramid is not a pyramid at all. Rather, it is fairly straight with a nearly equal proportion of people ages 45 to 65 as there are ages 24 years and younger. In the short term, this does not pose any real threat because there are still far more people working than retired. However, as the large share of the population that is now more than 50 years of age begins retiring, there may be trouble.

By contrast, the population pyramid of U.S. immigrants reflects a more ideal distribution. It shows the largest portion of the population is between the ages of 25 and 55.³² The reason for this is that immigrants typically come to the U.S. in middle age, meaning that immigrants have smaller proportions of their population that are composed of young and old individuals. Workers are their most productive in middle age, and the constant inflow of middle-aged immigrants helps grow the economy and care for the country's elderly.

³² *Statistical Portrait of the Foreign-Born Population in the United States, 2010*, report (Washington, DC: Pew Research Center, 2010), Table 9: Nativity, by Sex and Age: 2010, http://www.pewhispanic.org/files/2012/02/PHC-2010-FB-Profile-Final_APR-3.pdf.

Percentage of the Population in Each Age Distribution, 2010, Foreign-Born and Native-Born



Source: Author's Calculations; Pew Research Center, "Statistical Portrait of the Foreign-Born Population in the United States, 2010."

... Most immigrants are not children ...

Surprising Fact: Immigrants usually come to the U.S. during their prime working years.

In 2011, only 6.5% of U.S. immigrants were under the age of 18.³³ Usually this would pose a problem for a society since it suggests that in future years the size of the workforce would be much smaller than the size of the elderly population.

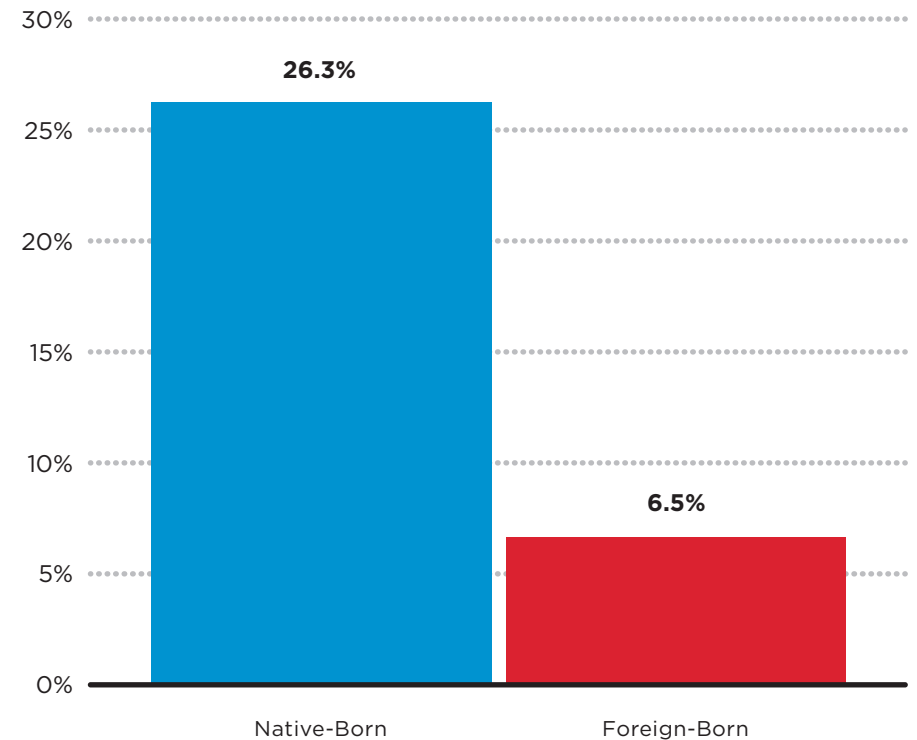
However, since immigrants come to the U.S. in their prime working years, the immigrant population has a large proportion of workers without needing to have a large population of young people.

In this way, the shape of the U.S. immigrant population pyramid – which has a bulge representing a large proportion of middle-aged people relative to young and elderly people – is even more advantageous than a traditional pyramid shape. Young people, while vibrant and future workers, are dependent upon middle-aged people to care for them. Since immigrants usually come as adults, they contribute to the economy without requiring resources to be expended on them in the U.S. when they are children.

³³ Author's calculations, Data from: U.S. Census Bureau, Selected Characteristics of the Native and Foreign-Born Populations, 2011 American Community Survey.



Percentage of the Foreign-Born and Native-Born Populations that are Under 18 Years of Age, 2011



Source: U.S. Census Bureau, "Selected Characteristics of the Native and Foreign-Born Populations."

... And immigrants are less likely to be elderly as well.

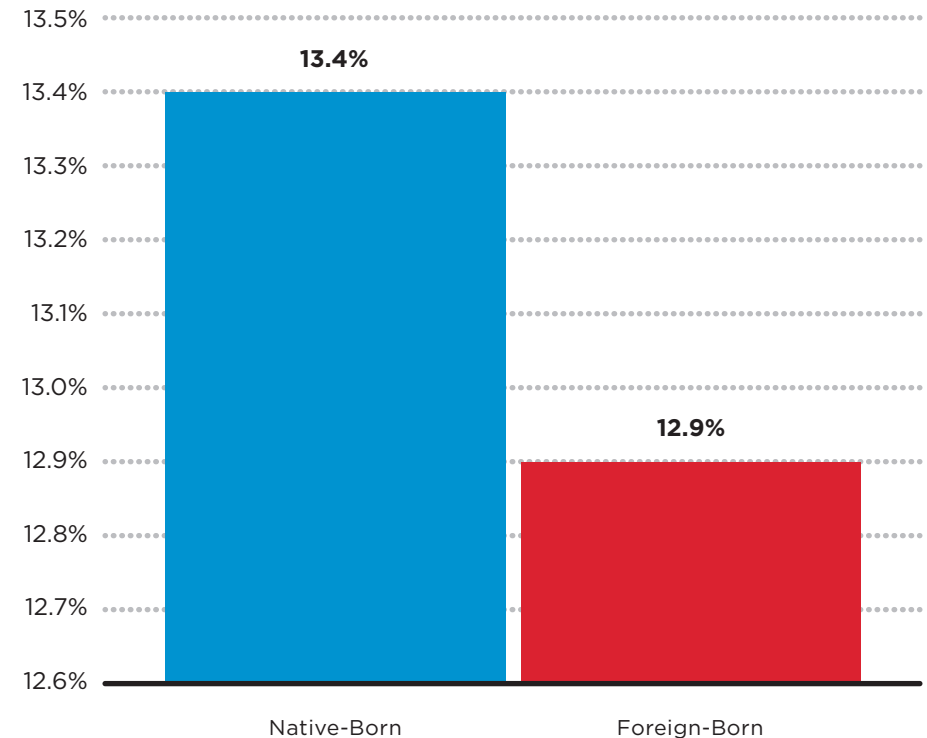


Surprising Fact:
Only 12.9% of immigrants are over the age of 65.

It is true that immigrants have a substantially older median age than natives: 42.1 years, compared to 35.9 years in 2011.³⁴ However, this is because so few immigrants fall into the younger age categories, not because a larger portion of immigrants are of an older age.

Indeed, in 2011, 13.4% of native-born Americans were 65 years of age and older, the equivalent of approximately 36.3 million people. Meanwhile, among immigrants, only 12.9% were 65 years and older. This difference of one-half of a percentage point may not seem overly large, but if natives had the same proportion of their population 65 years and older as immigrants, some 1.3 million natives would have belonged to a younger age category in 2011.³⁵

Percentage of the Foreign-Born and Native-Born Populations 65 Years of Age and Older, 2011



Source: U.S. Census Bureau, "Selected Characteristics of the Native and Foreign-Born Populations."

³⁴ U.S. Census Bureau, *Selected Characteristics of the Native and Foreign-Born Populations*, 2011 American Community Survey.

³⁵ Author's calculations, Data from: U.S. Census Bureau, *Selected Characteristics of the Native and Foreign-Born Populations*, 2011 American Community Survey.

Foreign college students come to study at American universities.



Surprising Fact: Nearly one of every five international students worldwide studies in America.

In 2009, some 3.7 million students were pursuing higher education in a country other than the country of which they were a citizen. The largest share of such international college students, almost one in every five in 2009, was studying at an American college or university.

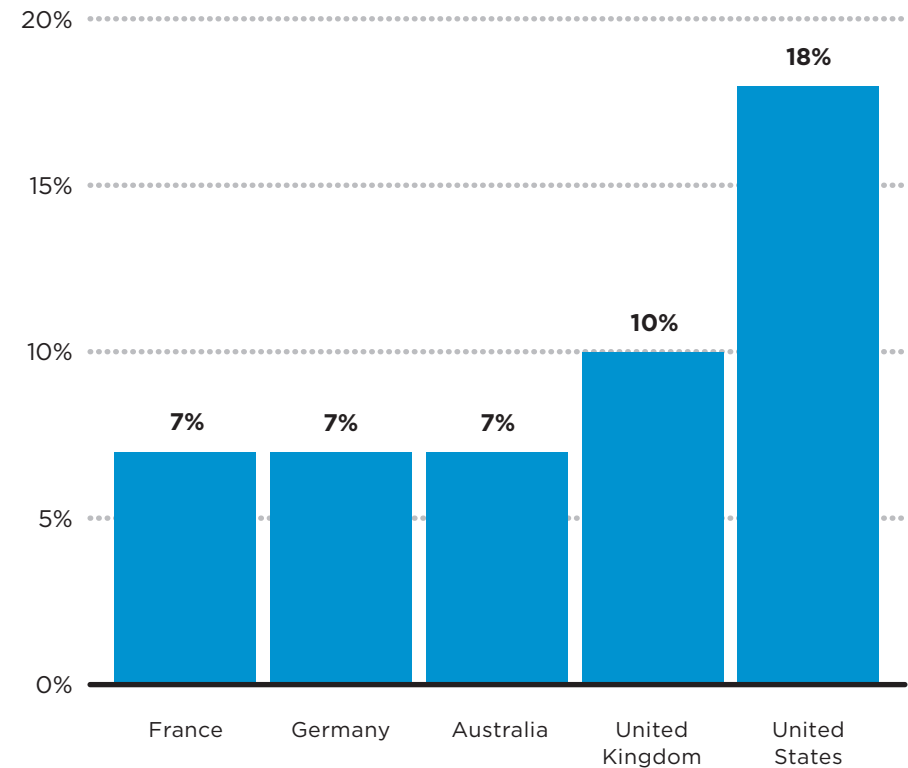
Asia was the region from which the greatest number of students to the U.S. came. In 2009, 18.8% of all international students in the U.S. were from China, followed by India with 15.4% of the total, and Korea with 11.2% of the total. Other countries receiving a high share of international college students in 2009 included the United Kingdom, which enrolled 10% of the world's total, Australia (7%), Germany (7%), and France (7%).

Despite the U.S. having the most total international college students in the world, its share of the world's total used to be higher. Between 2000 and 2009, the OECD estimates that the total number of college students studying internationally increased by 77%. Yet, over this same period, the percentage of the world's total studying in the U.S. fell to 18% in 2009 from more than 22% in 2000. Although the reasons for this drop are certainly many, the OECD concludes that the high price of tuition at U.S. institutions is one main reason.³⁶

³⁶ OECD, *Education at a Glance 2011* (OECD Publishing, 2011), Indicator C3, <http://www.oecd.org/edu/highereducationandadultlearning/48631079.pdf>.

Percentage Share of All Foreign College Students Worldwide Who Studied in Each Country, 2009

(Top Five Countries Shown in Graph)



Source: OECD, "Education at a Glance 2011."

Immigrants are disproportionately responsible for U.S. international patent applications.



Surprising Fact:
In 2006, non-citizen immigrants applied for almost one-quarter of all U.S. international patent applications.

The World Intellectual Property Organization (WIPO) defines a patent as the “exclusive right granted for an invention, which is a product or a process that provides, in general, a new way of doing something, or offers a new technical solution to a problem.”³⁷

Thus, by this very definition, the number of applications for patents is one of the best barometers of innovation in an economy because it measures the number of new ideas being introduced.

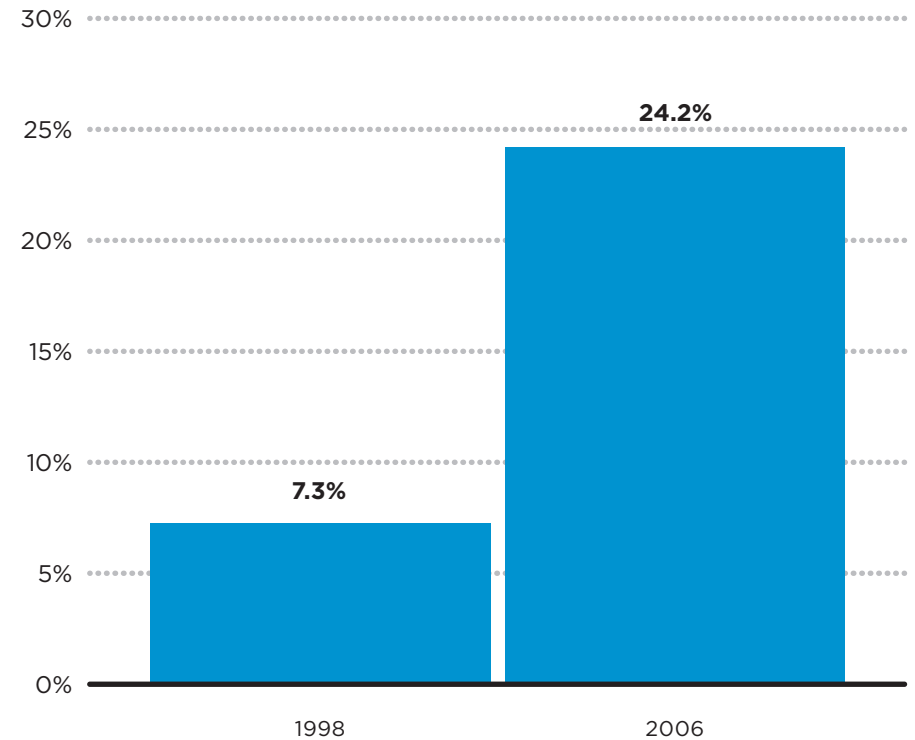
According to research by Vivek Wadhwa and others using data from the WIPO, in 2006 non-citizen immigrants were responsible for filing almost one-quarter of all U.S. international patent applications. This is an increase from the 7.3% of all international patents filed by those in the U.S. in 1998.³⁸

While the 2006 figure itself is highly impressive, it almost certainly understates the actual share of U.S. international patents filed by immigrants. This is because Wadhwa’s dataset only allowed him to determine the immigrant status of “non-citizen” immigrants. It therefore excludes immigrants to the U.S. who had subsequently become citizens. In 2011, there were more than 18 million such immigrants. If these immigrants were identifiable in the dataset, it is conceivable that immigrants’ overall share of all international patent applications would be even larger.

³⁷ “Patents,” World Intellectual Property Organization, accessed October 28, 2012, <http://www.wipo.int/patentscope/en/>.

³⁸ Vivek Wadhwa et al., “America’s New Immigrant Entrepreneurs: Part 1,” SSRN, January 4, 2007, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=990152.

Percentage of Total U.S. International Patent Applications Filed by the Non-Citizen Foreign-Born Population, 1998 and 2006



Source: Wadhwa et al., 2007.

Immigrants are more likely to be granted a patent ...

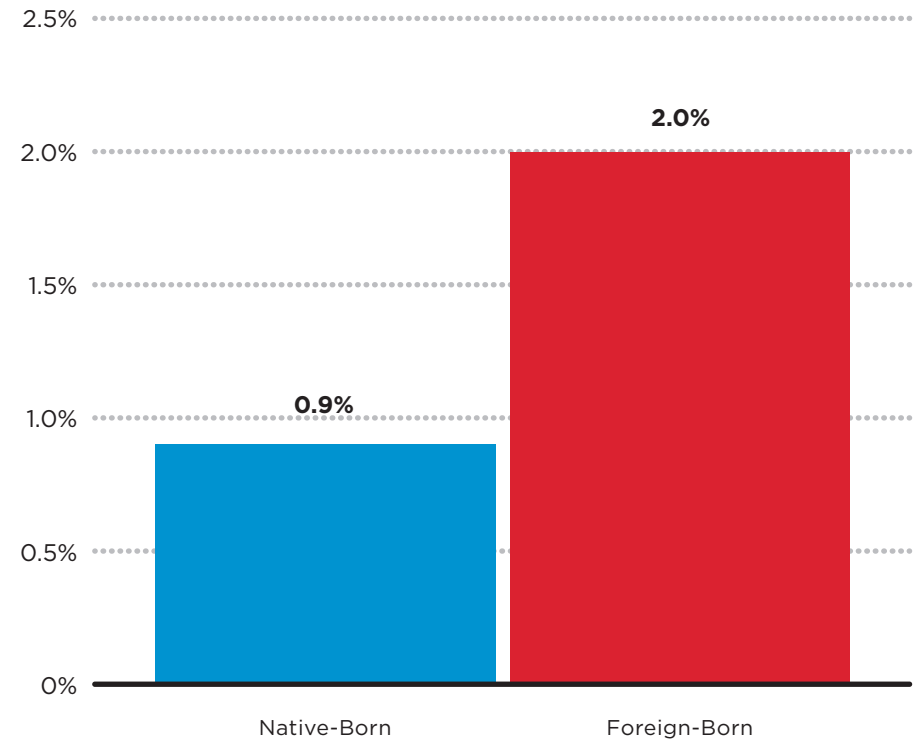


Surprising Fact: Immigrant college graduates are granted more patents on average than similarly educated native-born Americans.

Of course, applying for a patent is not the same thing as being granted a patent. Being granted a patent certifies that an outside authority agrees that one's idea is indeed novel and unique.

With this somewhat higher standard for innovation in mind, Jennifer Hunt analyzes data from the National Survey of College Graduates to assess the percentage of immigrants who are granted patents. Hunt finds that 2.0% of all immigrant college graduates surveyed in 2000 reported that they had been granted at least one patent. This proportion is double the percentage of native-born Americans who reported having received a patent (0.9%).³⁹ Furthermore, immigrant college graduates had been granted more patents per capita than natives: 0.054 patents per immigrant college graduate, compared to 0.028 patents per native-born college graduate in 2000.⁴⁰

Percentage of Native-Born and Foreign-Born College Graduates Who Have Ever Been Granted a Patent, 2000



³⁹ Jennifer Hunt, "Which Immigrants Are Most Innovative and Entrepreneurial? Distinctions by Entry Visa," *Journal of Labor Economics* 29, no. 3 (July 2011).
⁴⁰ Jennifer Hunt and Marjolaine Gauthier-Loiselle, "How Much Does Immigration Boost Innovation," *American Economic Journal: Macroeconomics*, *American Economic Association* 2, no. 2 (2010).

Source: Hunt, 2011.

... And a greater percentage of immigrants commercialize their patents.

Surprising Fact: Immigrants are good at bringing their ideas to the marketplace.

Patents especially help grow the economy when they are commercialized or licensed. Hunt (2011) finds that 1.3% of immigrant college graduates had commercialized a patent in 2000, compared to 0.6% of natives.

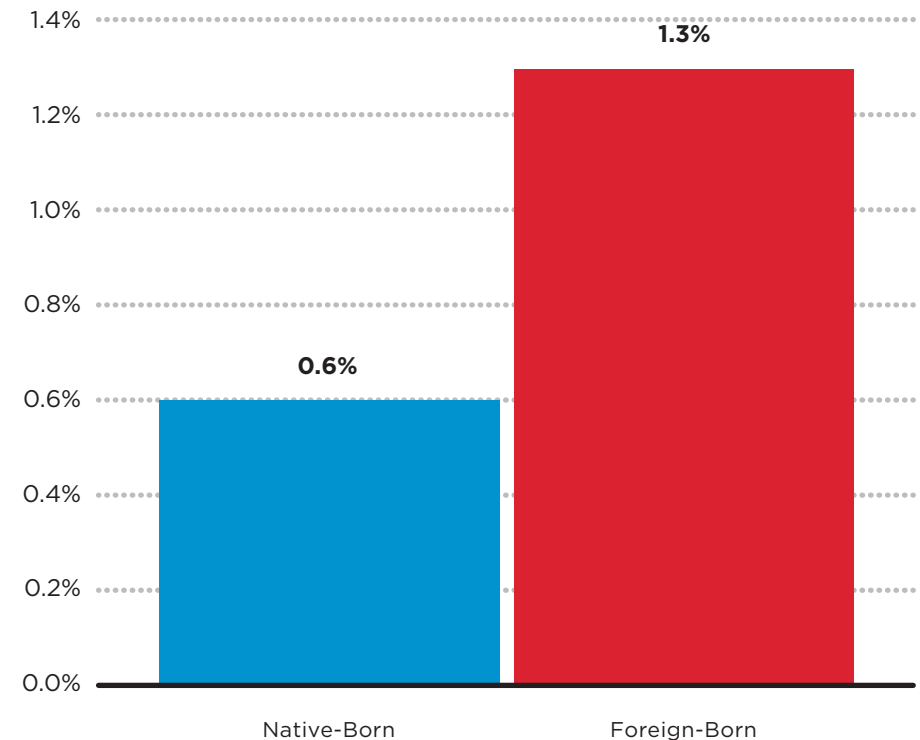
Furthermore, the number of patents commercialized by immigrant college graduates was more than 1.5 times the number of patents commercialized by native-born Americans on a per capita basis. In 2000, immigrant college graduates had commercialized approximately 27 patents for every 1,000 immigrant college graduates in the population, compared to around 17 patents commercialized by native-born college graduates per every 1,000 natives.⁴¹

Clearly, immigrants play an important role in generating new ideas and bringing them to the market. This innovation and entrepreneurialism are key drivers of long-term economic growth.

⁴¹ Jennifer Hunt, "Which Immigrants Are Most Innovative and Entrepreneurial? Distinctions by Entry Visa," *Journal of Labor Economics* 29, no. 3 (July 2011).



Percentage of Native-Born and Foreign-Born College Graduates Who Have Commercialized a Patent, 2000



Source: Hunt, 2011.

Immigrants are more likely to publish a scholarly work...



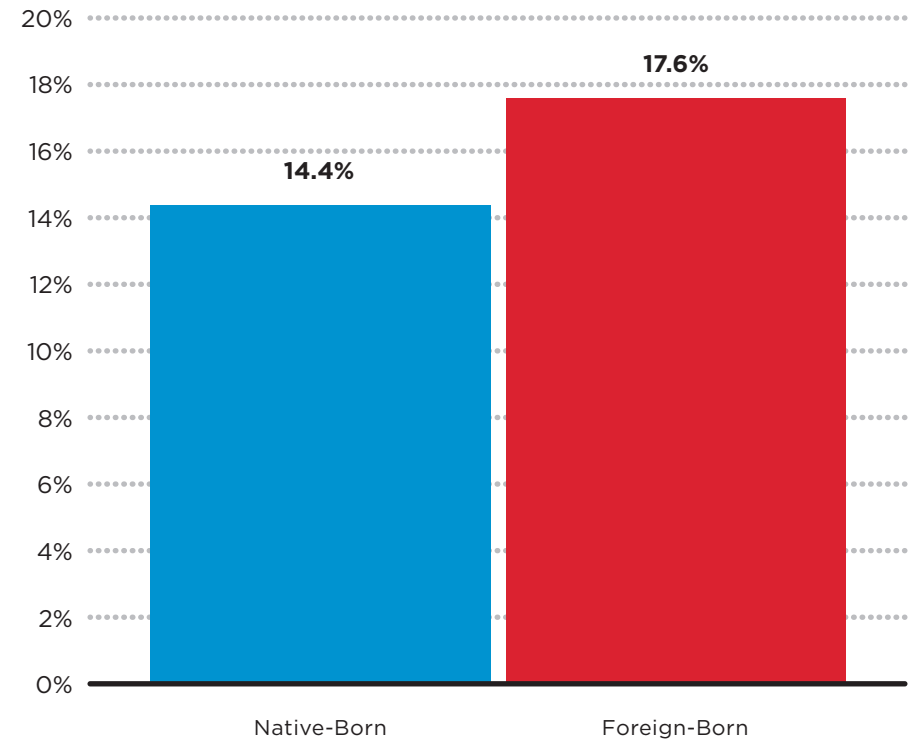
Surprising Fact: Immigrants often share new ideas by publishing scholarly works.

Besides generating and commercializing patents, new ideas are also introduced into the economy through published research.

Similar to the patenting application process, for academic research to be accepted for publication it must almost always be reviewed first by qualified peers. In addition, research that is accepted for publication often must express a new idea, or offer a new and cogent interpretation of an existing idea.

Data suggest that immigrants are more likely to have published than native-born. In 2000, 17.6% of immigrants who had graduated from college reported ever having published a book, journal article, or a paper for presentation at a conference. Only 14.4% of native-born college graduates reported having done likewise.⁴²

Percentage of Native-Born and Foreign-Born College Graduates Who Have Ever Published a Scholarly Work, 2000



Source: Hunt, 2011.

⁴² Jennifer Hunt, "Which Immigrants Are Most Innovative and Entrepreneurial? Distinctions by Entry Visa," *Journal of Labor Economics* 29, no. 3 (July 2011).

... And immigrants have a greater number of publications on average.



Surprising Fact: Immigrants are more likely than natives to publish, and they publish more.

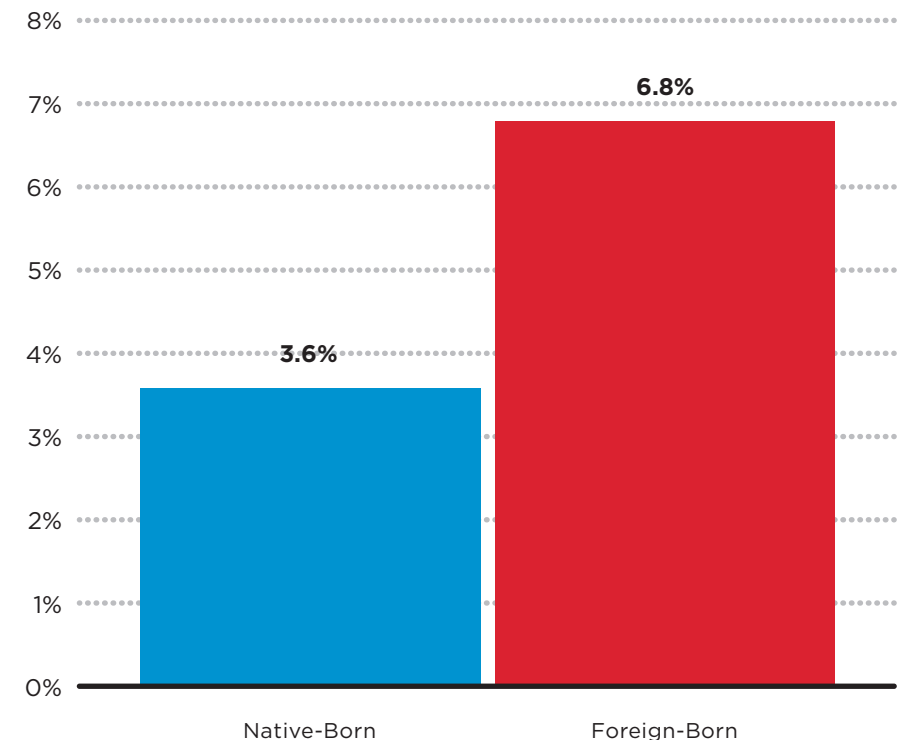
Not only are immigrants more likely to have ever published a scholarly work, they have more publications on average, too.

In 2000, among immigrant college graduates who reported having been published, 6.8% had published six or more scholarly works. This compares well relative to native-born college graduates, among whom 3.6% reported having published six or more scholarly works.⁴³

One criticism of published academic research is that it often takes a very long time to reach the market, if indeed it reaches the market at all. In this case, having more publications may not be overly beneficial to the economy. In their book, "Good Capitalism, Bad Capitalism," authors William Baumol, Robert Litan, and Carl Schramm argue that university research transfer offices need more competition from other intellectual property agents to ensure financially viable innovations reach the market more quickly.⁴⁴ Following their advice would allow immigrants to have an even bigger impact on the economy.

⁴³ Jennifer Hunt, "Which Immigrants Are Most Innovative and Entrepreneurial? Distinctions by Entry Visa," *Journal of Labor Economics* 29, no. 3 (July 2011).
⁴⁴ William J. Baumol, Robert E. Litan, and Carl J. Schramm, *Good Capitalism, Bad Capitalism, and the Economics of Growth and Prosperity* (New Haven: Yale University Press, 2007).

Percentage of Those Who Have Been Published With At Least Six Publications, Foreign-Born and Native-Born, 2000



Source: Hunt, 2011.

Note: Sample is for college graduates who report having ever published a book, journal article, or a paper for presentation at a conference.

Immigrants represent a disproportionate share of U.S. small-business owners.



Surprising Fact: Immigrants start or own more than their share of small businesses.

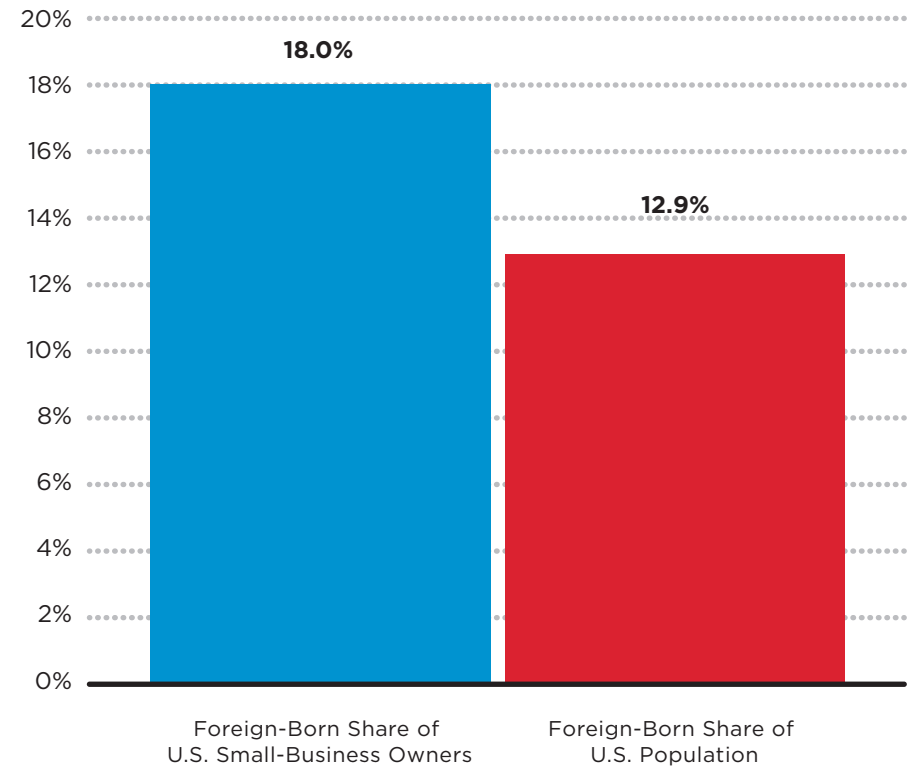
According to the Survey of Business Owners, small businesses⁴⁵ employed 35 million workers in 2007, the equivalent of 30% of all private-sector employment in the U.S. These businesses are an important source of income for Americans and a core component of the U.S. economy.⁴⁶

In 2010, approximately 18% of all small-business owners in the U.S. were immigrants. This is disproportionately larger than immigrants' 2010 share of the U.S. population (12.9%) and their share of the civilian labor force (15.9%) in 2010. Immigrants represent an even larger share of all small-business owners in several immigrant-intensive states. For example, in California 33% of all small-business owners are immigrants, followed by New York (29%), New Jersey (28%), Florida (26%), and Hawaii (23%).⁴⁷

The economic impact of immigrant-owned small businesses has been strong. Among small businesses for which at least half of the founders were immigrants, these firms "employed an estimated 4.7 million people" and "generated an estimated total of \$776 billion in receipts in 2007."⁴⁸

45 A small business is defined as a firm employing between 1 and 99 employees.
 46 David D. Kallick, *Immigrant Small Business Owners: A Significant and Growing Part of the Economy*, report (Washington, DC: Fiscal Policy Institute, 2012), <http://fiscalpolicy.org/wp-content/uploads/2012/06/immigrant-small-business-owners-FPI-20120614.pdf>.
 47 Data from: U.S. Census Bureau, 2010 American Community Survey; as found in: David D. Kallick, *Immigrant Small Business Owners: A Significant and Growing Part of the Economy*, report (Washington, DC: Fiscal Policy Institute, 2012), <http://fiscalpolicy.org/wp-content/uploads/2012/06/immigrant-small-business-owners-FPI-20120614.pdf>.
 48 David D. Kallick, *Immigrant Small Business Owners: A Significant and Growing Part of the Economy*, report (Washington, DC: Fiscal Policy Institute, 2012), <http://fiscalpolicy.org/wp-content/uploads/2012/06/immigrant-small-business-owners-FPI-20120614.pdf>.

Foreign-Born Percentage Share of Small-Business Owners Compared to Their Share of the U.S. Population, 2010



Source: Kallick, 2012.

Immigrants are more likely to own a company with 10 or more employees.



Surprising Fact: When immigrants start small businesses, they create jobs for others.

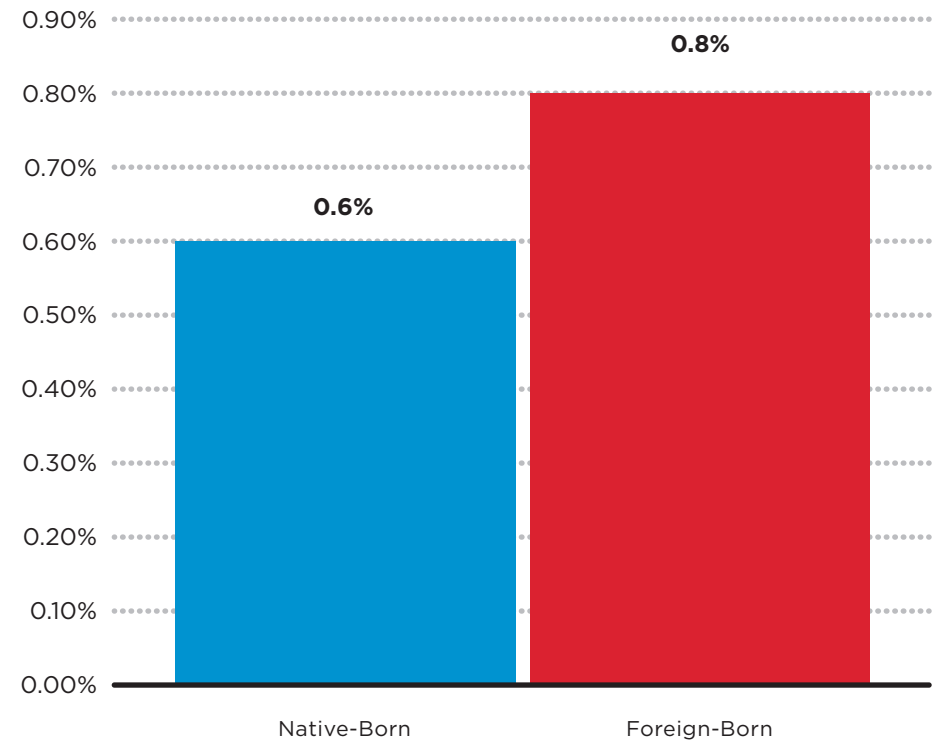
The average number of employees who work for a small business is a good indicator of the importance of immigrant-owned small businesses to the economy.

After all, there is a big difference between a firm with only one employee and a firm with several employees. David Kallick (2012) finds that 57% of immigrant-owned small businesses “have at least one paid employee in addition to the owner,” the same percentage as small businesses owned by native-born citizens. This suggests that the majority of immigrants’ firms, like natives’, are more than a single man- or woman-owned shop.

Jennifer Hunt (2009) utilizes data from the National Survey of College Graduates and finds that immigrant college graduates are slightly more likely than natives to have started a firm that employs more than 10 workers. As the chart shows, in 2000, 0.8% of immigrants surveyed reported they started a business with more than 10 employees compared to 0.6% of natives.⁵⁰

It should be noted, however, that data on the average total number of employees per small business favor businesses owned by native-born citizens. Overall, immigrant-owned small businesses average 11.0 employees, compared to 13.9 employees among small businesses owned by natives. Even so, it is undeniable that immigrants play a strong role in starting and growing small businesses in America.

Percentage of Foreign-Born People and Native-Born Citizens Who Started a Firm That Employs More than 10 Workers, 2000



Source: Hunt, 2011.

49 David D. Kallick, *Immigrant Small Business Owners: A Significant and Growing Part of the Economy*, report (Washington, DC: Fiscal Policy Institute, 2012), <http://fiscalpolicy.org/wp-content/uploads/2012/06/immigrant-small-business-owners-FPI-20120614.pdf>.

50 Jennifer Hunt, “Which Immigrants Are Most Innovative and Entrepreneurial? Distinctions by Entry Visa,” *Journal of Labor Economics* 29, no. 3 (July 2011).

51 David D. Kallick, *Immigrant Small Business Owners: A Significant and Growing Part of the Economy*, report (Washington, DC: Fiscal Policy Institute, 2012), <http://fiscalpolicy.org/wp-content/uploads/2012/06/immigrant-small-business-owners-FPI-20120614.pdf>.

Over decades, immigrants are fueling the growth of small businesses.



Surprising Fact: The number of immigrant small-business owners expanded by 539,000 during the past two decades.

Over the two decades from 1990 to 2010, the number of small-business owners in the U.S. increased by 1.8 million. New immigrant small business-owners played an important role in this growth.

The number of immigrant small-business owners increased by 539,000, accounting for approximately 30% of the total growth.⁵²

It is also worth noting that immigrants are more likely to start a small business after they have been in the country for several years. Kallick (2012) finds that immigrants who have lived in the U.S. for more than 10 years “are more than twice as likely to be small business owners,” compared with immigrants who have been in the U.S. for 10 or fewer years.⁵³ This finding is important because the number of immigrants in the U.S. increased substantially over the past two decades. Since many of these immigrants have now been in the country for more than 10 years, we might expect immigrant small-business ownership to further increase in coming years.

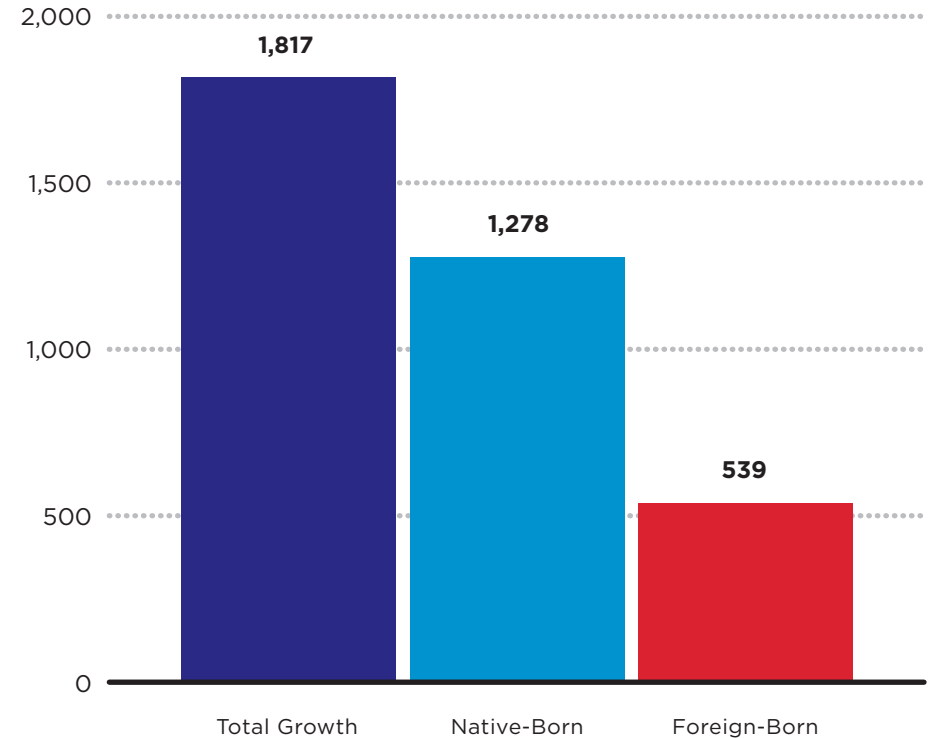
⁵² David D. Kallick, *Immigrant Small Business Owners: A Significant and Growing Part of the Economy*, report (Washington, DC: Fiscal Policy Institute, 2012), <http://fiscalpolicy.org/wp-content/uploads/2012/06/immigrant-small-business-owners-FPI-20120614.pdf>.

⁵³ Ibid.

Growth in the Number of Foreign-Born and Native-Born Small-Business Owners, 1990-2010

SMALL-BUSINESS OWNERS

(THOUSANDS)



Source: Kallick, 2012.

Immigrants disproportionately start successful engineering and technology firms.

Surprising Fact: Immigrants lead in new industries. Between 1995 and 2005, more than half of all major engineering and technology firms founded in Silicon Valley had an immigrant as a key founder.

Many people point to U.S. engineering and technology companies as examples of the types of innovative firms that will propel the country's economy forward in the 21st century.

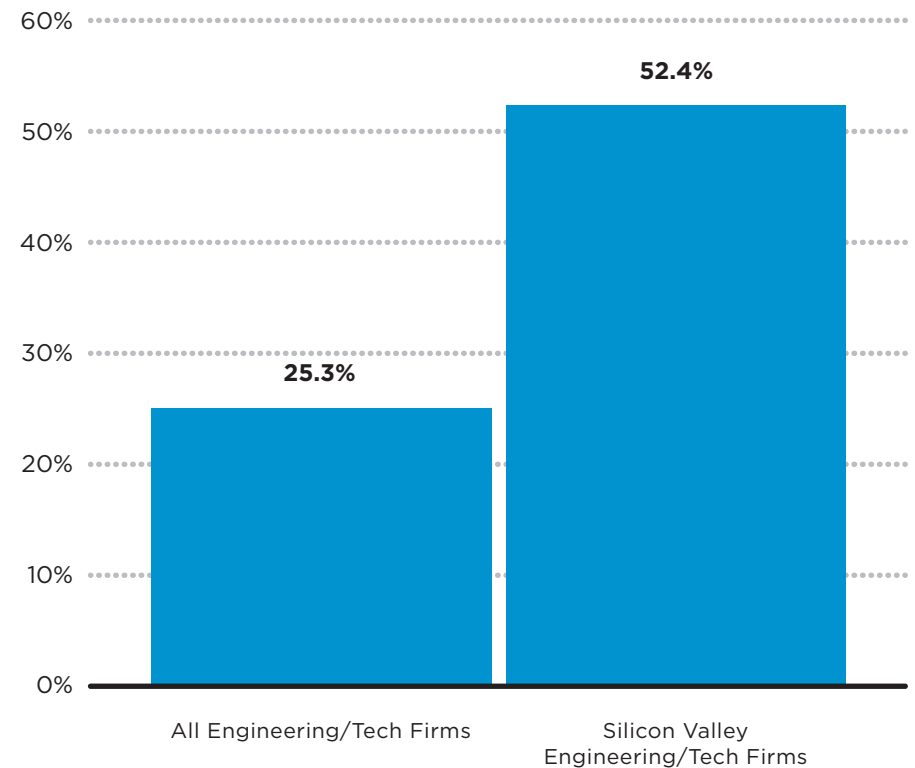
Immigrants have been especially important to the development of many of the most important firms in this sector.

Vivek Wadhwa and a team of researchers examined data on the founders of all U.S. engineering and technologies companies started between 1995 and 2005 that had at least \$1 million in sales and 20 employees. What they found was astonishing: 25.3% of all engineering and technology companies had at least one immigrant as a "key founder." Even more impressive, during this same time frame, more than half of all major engineering and technology firms founded in Silicon Valley had an immigrant as a key founder. The researchers estimate that collectively, these immigrant-founded companies nationwide generated more than \$52 billion in sales in 2005 and had created "just under 450,000 jobs as of 2005."⁵⁴

⁵⁴ Vivek Wadhwa et al., "America's New Immigrant Entrepreneurs: Part 1," SSRN, January 4, 2007, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=990152.



Percentage of All Major U.S. Engineering and Technology Companies Founded between 1995-2005 That Were Started by The Foreign-Born



Source: Wadhwa et al., 2007.

Immigrants have founded an increasing share of all venture-backed public firms ...



Surprising Fact:
In 2006, 400,000 people worldwide were employed by an immigrant-founded public firm that was originally venture-backed.

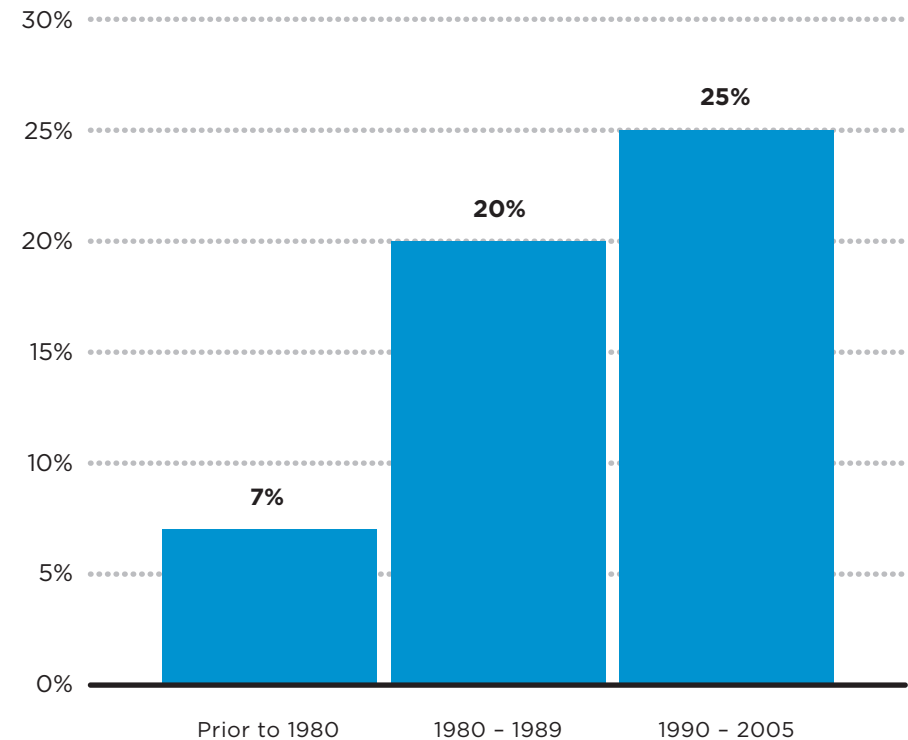
Most venture-backed firms are not publicly traded. In fact, over the period 1990-2005, only 356 such firms (both venture-backed and publicly traded) came into existence.

Of those, 88 (the equivalent of 25%) were founded by immigrants, a disproportionate share compared to immigrants' share of the U.S. population. Perhaps even more remarkable though is the strong increase in the share of such firms that immigrants have started. Prior to 1980, only 7% of these firms were started by immigrants. Over the next decade, from 1980 to 1989, the immigrant-founded proportion grew to 20% of the total.

The impact of these immigrant-founded companies is immense. Writing in 2006, Stuart Anderson and Michaela Platzer found that immigrant-founded, venture-backed public companies "employ an estimated 220,000 people in the United States and over 400,000 people globally." Furthermore, Anderson and Platzer find that these companies had a market capitalization in excess of \$500 billion in 2006.⁵⁵

⁵⁵ Stuart Anderson and Michaela Platzer, American Made: The Impact of Immigrant Entrepreneurs and Professionals on U.S. Competitiveness, report (National Venture Capital Association, 2006), http://www.nvca.org/index.php?option=com_content&view=article&id=254&Itemid=103.

Percentage of Venture-Backed, Publicly Traded Firms That Were Founded by The Foreign-Born



Source: Anderson and Platzer, 2006.

Many “Fortune 500” companies are founded by immigrants.



Surprising Fact: More than 40% of all companies on the 2010 “Fortune 500” list were founded by an immigrant or the child of an immigrant.

Every year, Fortune magazine publishes the “Fortune 500,” a listing of the 500 American companies with the most total revenue. Analyses have found that immigrants start a shockingly large share of these iconic American firms.

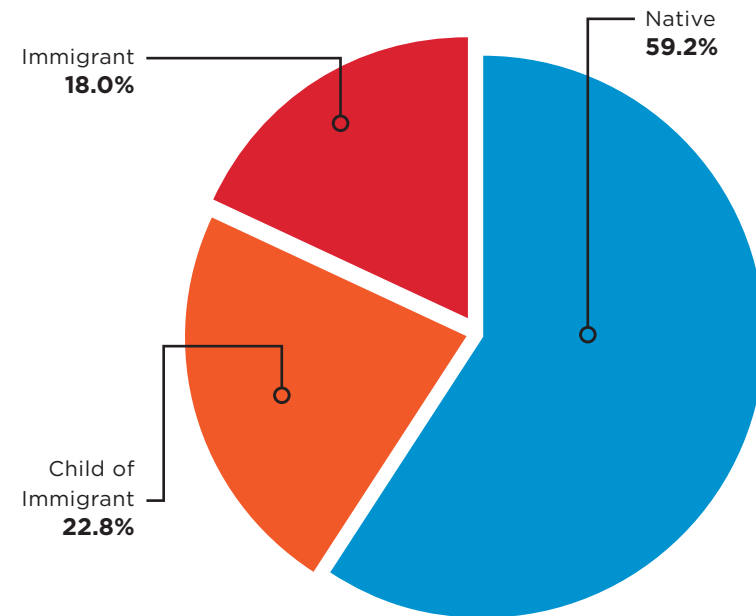
A study from the Partnership for a New American Economy (2011) finds that among the 2010 Fortune 500 list, 18% of all “Fortune 500” companies had at least one founder who was an immigrant. In addition, 22.8% of these firms were founded by the children of immigrants. Combined, companies founded by an immigrant or child of an immigrant represented 40.8% of all Fortune 500 companies on the 2010 list. Such immigrant-founded “Fortune 500” firms include: AT&T, Verizon, Pfizer, Kraft, DuPont, Google, Yahoo!, and eBay.⁵⁶

The George W. Bush Institute updated the Partnership for a New American Economy study by repeating the same analysis using the 2012 edition of the “Fortune 500” list. The findings revealed that among the 2012 “Fortune 500” firms, 19% were founded by immigrants and 23.4% were founded by the children of immigrants. Combined, 42.2% of these firms were founded by an immigrant or the child of an immigrant, up slightly from the 40.8% of firms from the 2010 “Fortune 500”.⁵⁷

⁵⁶ The “New American” Fortune 500, report (Partnership for a New American Economy, 2011), <http://www.renewoureconomy.org/sites/all/themes/pnae/img/new-american-fortune-500-june-2011.pdf>.

⁵⁷ Mario Kranjac, *Immigrant Contributions to U.S. Entrepreneurship and Innovation*, report, summer 2012, <http://www.fourpercentgrowth.org/wp-content/uploads/2012/09/Immigrant-Contributions-to-U.S.-Entrepreneurship-and-Innovation.pdf>.

Percentage of “Fortune 500” Companies Founded by The Foreign-Born, Their Children, and Native-Born Citizens, 2010



Source: Partnership for a New American Economy, 2011.

Immigrants tell us about the state of our own economy.



Surprising Fact: In recent years, net-migration between the U.S. and Mexico has been close to zero.

One way to learn about the health of the U.S. economy is to study the direction of the flow of immigrants. After all, immigrants move to America to pursue better economic opportunities, so when the flow of immigrants slows or reverses, this suggests that the economy is sluggish.

The U.S.-Mexico border is the largest immigration corridor in the world, and historically most of the flow of immigrants has been in the direction of the U.S. In the period from 1995 to 2000, approximately 2.9 million moved to the U.S. from Mexico while 670,000 people moved to Mexico from the U.S.

However, in recent years, the data show that more people have moved to Mexico from the U.S. than have immigrated in the opposite direction. For the period 2005 to 2010, 1.39 million people moved to Mexico from the U.S. while 1.37 million made the more traditional move to the U.S. from Mexico.⁵⁸

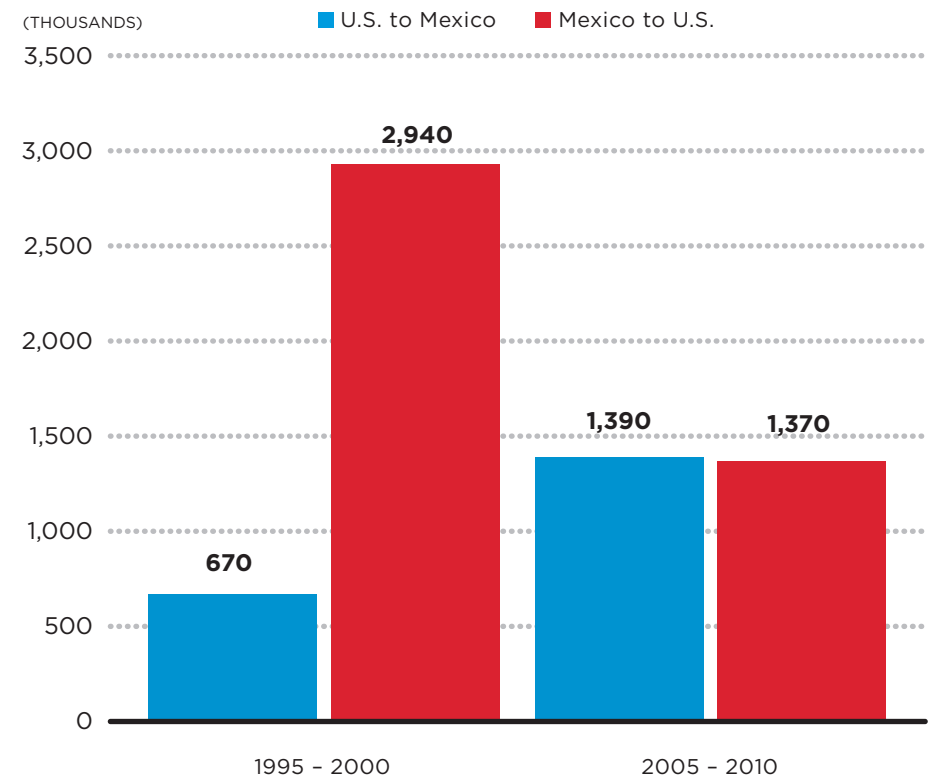
The Pew Hispanic Center, from where these data originate, reports that a majority of those returning to Mexico from the U.S. have done so voluntarily. While deportations from the U.S. have increased, the study estimates that between 65% and 95% of the immigration from the U.S. to Mexico has been voluntary.⁵⁹

There are, no doubt, many reasons for the changing nature of the flow of immigrants between the U.S. and Mexico. But at least one main reason is that economic opportunities in Mexico have improved in recent years while the U.S. has experienced several years of slow growth.

⁵⁸ Jeffrey Passel, D'Vera Cohn, and Ana Gonzalez-Barrera, *Net Migration from Mexico Falls to Zero—and Perhaps Less*, report (Washington, DC: Pew Research Center, 2012), pg. 7. http://www.pewhispanic.org/files/2012/04/Mexican-migrants-report_final.pdf.

⁵⁹ *Ibid.*, pg. 8.

Number of People Moving between the U.S. and Mexico, 1995-2000 and 2005-2010



Source: Figure 1.2 from Passel et al., 2012.

The Challenges



Millions of immigrants are here illegally ...



Surprising Fact: It is estimated that 11.5 million unauthorized immigrants resided in the U.S. in 2011.

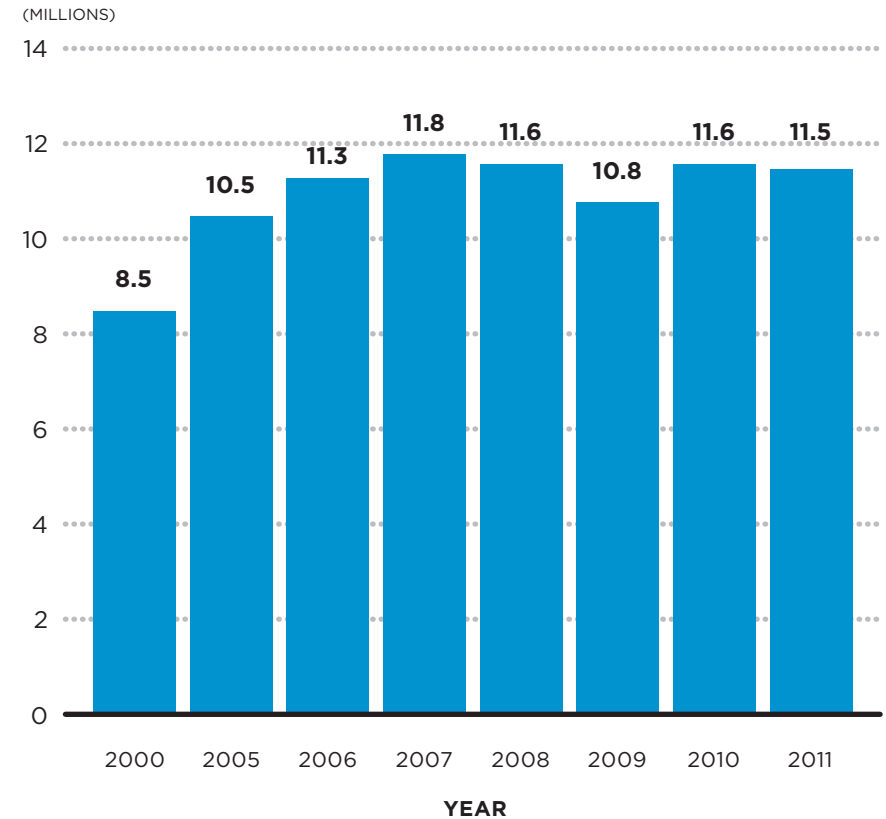
Immigrants can be classified as “illegal” or “unauthorized” for three main reasons. First, if they enter the country without obtaining permission from the U.S. government, they are considered to be in the country illegally.

Immigrants are also considered illegal immigrants when they remain in the country after a visa or Green Card that was legally granted them has expired. Finally, violating the conditions of one’s entry into the U.S., such as being employed without having the appropriate visa, also renders an immigrant as being illegal.

A main worry many Americans have about immigrants is that too many live in the country illegally. This worry is not unfounded. The Department of Homeland Security estimates that 11.5 million immigrants were unauthorized to be in the U.S. in 2011, but were residing in the country anyway. This figure is fairly consistent with data for the past half-decade, which estimate the illegal immigrant population ranging from a low of 10.5 million in 2005 to a high of 11.8 million in 2007. Of course, these estimates are significantly higher than the estimate of 8.5 million illegal immigrants living in the U.S. in 2000.⁶⁰

60 U.S. Department of Homeland Security, Office of Immigration Statistics, *Estimates of the Unauthorized Immigrant Population Residing in the United States: January 2011*, by Michael Hoefler, Nancy Rytina, and Bryan Baker (2012), http://www.dhs.gov/xlibrary/assets/statistics/publications/ois_ill_pe_2011.pdf.

Number of Unauthorized Foreign-Born Persons Residing in the U.S., 2000-2011



Source: U.S. Department of Homeland Security, 2012.

... Though lately illegal immigration has slowed.



Surprising Fact: Most illegal immigrants in the U.S. today came to the country in previous decades.

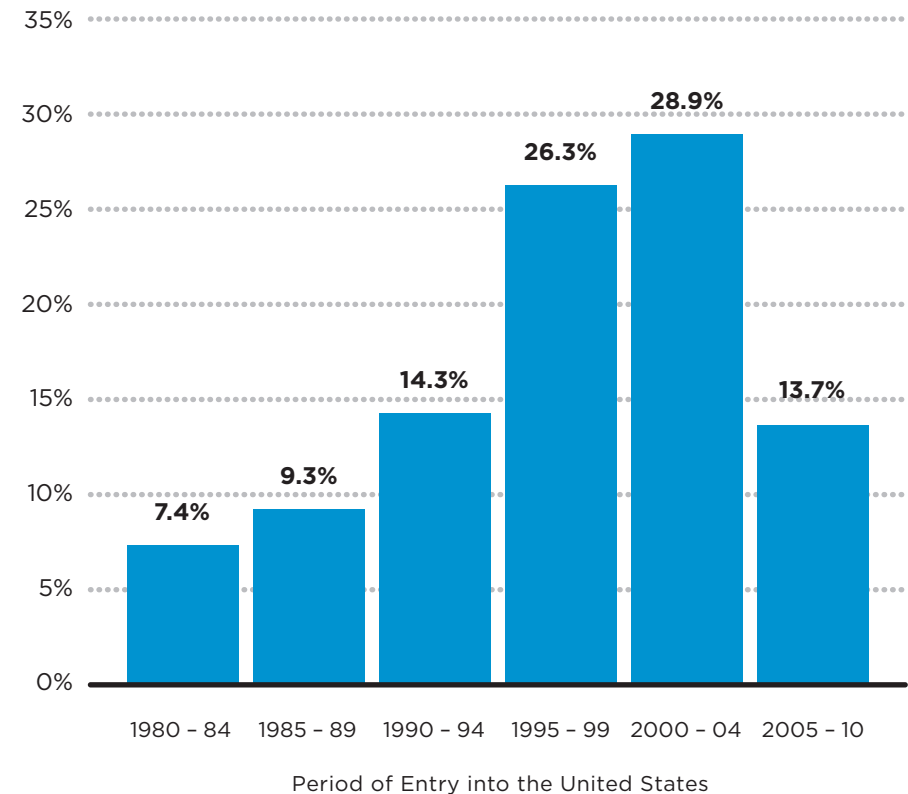
Though 11.5 million immigrants live in the U.S. illegally, the data show the illegal immigrant population has not increased significantly in recent years. The Department of Homeland Security estimates that 26.3% of the illegal immigrant population living in the U.S. in January 2011 entered the country between 1995 and 1999.

Another 28.9% of the illegal immigrant population entered between 2000 and 2004. Meanwhile, only 13.7% of the illegal immigrant population entered the country between 2005 and 2010.⁶¹

This is welcome news to those concerned that too many immigrants are in the country illegally. Furthermore, it is important to keep in mind that the majority of immigrants living in the U.S. are in the country legally. In 2011, the total immigrant population in the U.S. was around 40.4 million, meaning that illegal immigrants accounted for less than 30% of the total. While this is still a percentage larger than many Americans probably prefer, illegal immigrants are only a fraction of the total immigrant population of the country.⁶²

⁶¹ U.S. Department of Homeland Security, Office of Immigration Statistics, *Estimates of the Unauthorized Immigrant Population Residing in the United States: January 2011*, by Michael Hofer, Nancy Rytina, and Bryan Baker (2012), pg. 3, http://www.dhs.gov/xlibrary/assets/statistics/publications/ois_ill_pe_2011.pdf.
⁶² Ibid.

Percentage Share of All Unauthorized Foreign-Born Persons Who Entered the U.S. During Each Period



Source: U.S. Department of Homeland Security, 2012.

Border enforcement costs taxpayers billions ...



Surprising Fact: The budget of the U.S. Border Patrol has grown substantially over the past decade.

The U.S. Border Patrol is a law enforcement agency within U.S. Customs and Border Protection that is charged with monitoring and protecting the U.S. borders.

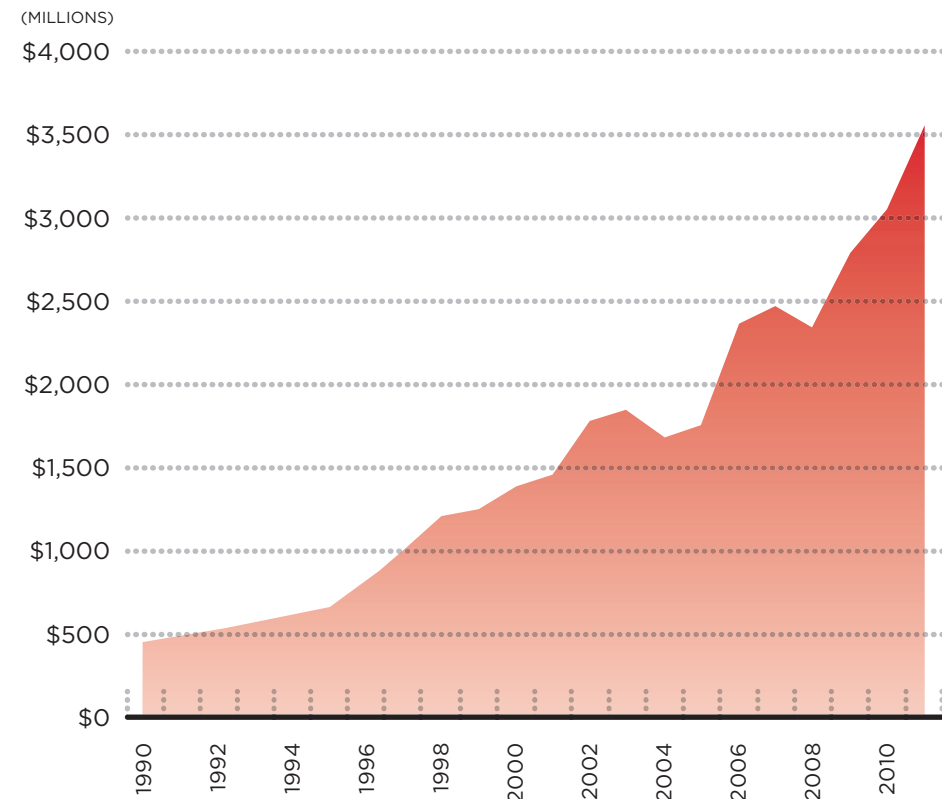
U.S. Border Patrol is also responsible for monitoring illegal immigrant activity within the U.S. According to Border Patrol's website, the agency monitors 6,000 miles of land terrain along the U.S. and Mexico border and the U.S. and Canada border. The agency also monitors approximately 2,000 miles of coastal border along the Florida peninsula and Puerto Rico.⁶³

While protecting America's borders is important, Americans are understandably concerned with the associated costs. In 2011, the enacted budget of the U.S. Border Patrol was more than \$3.5 billion. The agency's budget has increased substantially over the past 20 years, and especially since the September 11, 2001, attacks. In 1990, the budget was \$452 million in 2011 dollars. Ten years later, in 2000, the budget was just under \$1.38 billion, but grew to \$2.36 billion by 2006 and reached \$3.05 billion in 2010.⁶⁴

⁶³ "Border Patrol Overview," CBP.gov, http://www.cbp.gov/xp/cgov/border_security/border_patrol/border_patrol_ohs/overview.xml.

⁶⁴ U.S. Border Patrol, Enacted Border Patrol Program Budget by Fiscal Year, http://www.cbp.gov/linkhandler/cgov/border_security/border_patrol/usbp_statistics/budget_stats.ctt/budget_stats.pdf.

Enacted Budget of the U.S. Border Patrol, Fiscal Years 1990-2011



Source: U.S. Border Patrol, "Enacted Border Patrol Program Budget by Fiscal Year."

Note: Data are reported as of 2011 U.S. Dollars, and were adjusted by the author using the Consumer Price Index.

... And the number of border patrol agents is at an all-time high.



Surprising Fact: In 2011, the U.S. employed more than 21,000 border patrol agents.

The U.S. Border Patrol was founded in 1924, and employed a handful of agents who patrolled the Mexican and Canadian borders. The staffing of the Border Patrol has grown dramatically, especially in recent years.

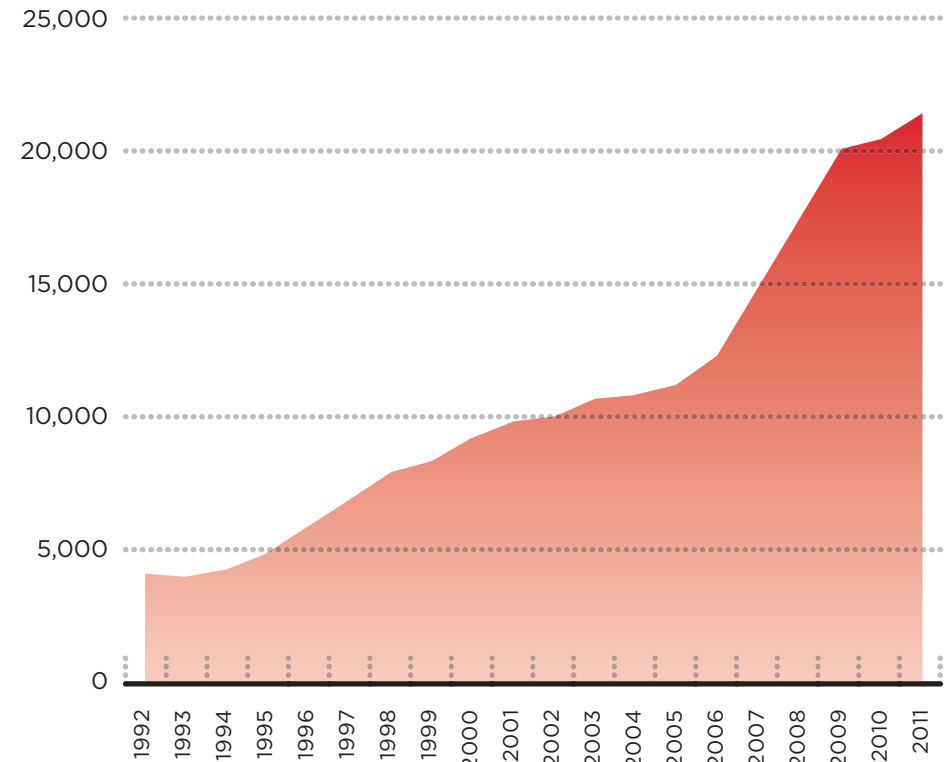
According to official statistics, in 1992, the Border Patrol employed 4,139 agents. The number of agents reached more than 10,000 for the first time in 2002. Border Patrol staffing grew especially rapidly beginning in 2005. Between 2005 and 2011, the number of agents almost doubled, reaching 21,444 in 2011.⁶⁵

Interestingly, from 2005 to 2011, the years when the number of border patrol agents increased so much, the number of illegal immigrant apprehensions decreased every year. In 2005, 1.19 million illegal immigrants were apprehended. That number fell by approximately 100,000 in 2006 before falling more dramatically to 556,041 in 2009, and 340,252 in 2011.⁶⁶

It perhaps seems counterintuitive that the number of apprehensions decreased at a time when there were more agents guarding the borders. But really this makes sense. One effect of increased border patrol staffing is likely that many would-be illegal immigrants did not try to cross U.S. borders illegally in the first place, for fear of being caught.

⁶⁵ U.S. Border Patrol, *Border Patrol Agent Staffing by Fiscal Year*, http://www.cbp.gov/linkhandler/cgov/border_security/border_patrol/usbp_statist/ics/staffing_92_10.ctt/staffing_92_11.pdf.
⁶⁶ U.S. Border Patrol, *Nationwide Illegal Alien Apprehensions Fiscal Years 1925 - 2011*, http://www.cbp.gov/linkhandler/cgov/border_security/border_patrol/usbp_statist/ics/25_10_app_stats.ctt/25_11_app_stats.pdf.

Total Number of U.S. Border Patrol Agents, Fiscal Years 1992-2011



Source: U.S. Border Patrol, "Border Patrol Agent Staffing by Fiscal Year."

Many immigrants lack health insurance ...



Surprising Fact: More than one-third of immigrants did not have health insurance in 2010.

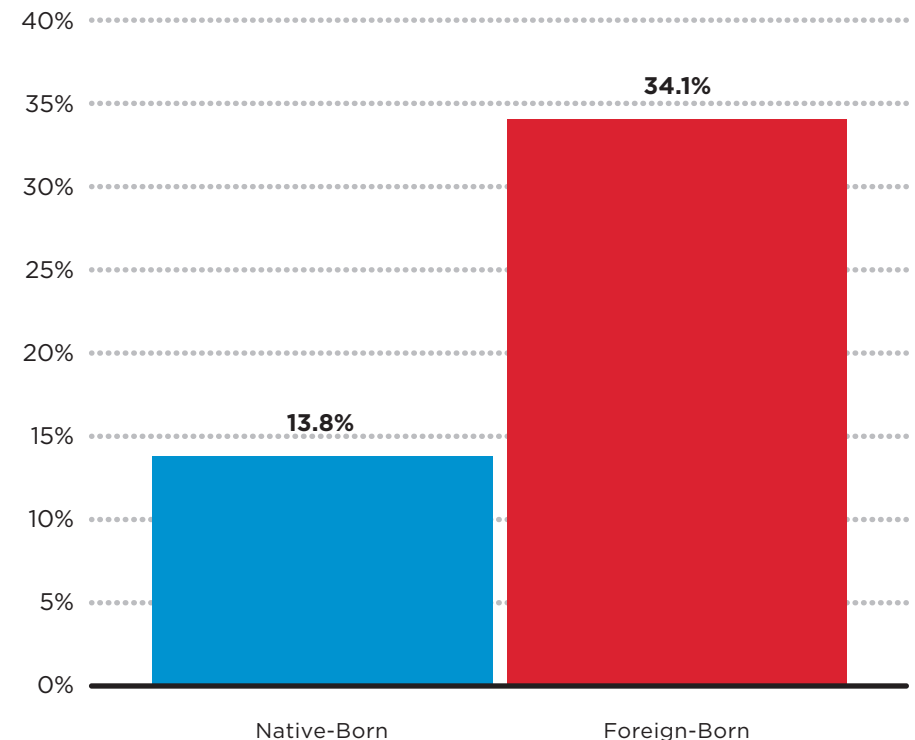
A national concern generating much attention in recent years has been the proportion of Americans who are not covered by health insurance. In 2010, the U.S. Census Bureau estimates that 13.8% of native-born Americans, some 36.8 million people, did not have health insurance.

That same year, 34.1% of immigrants lacked health insurance, meaning that immigrants were more than twice as likely to lack health insurance compared to natives.⁶⁷

The U.S. Census Bureau classifies immigrants based on two main categories: those who are naturalized citizens, meaning they are immigrants who have gained citizenship status, and those who are not citizens. Breaking out the health-insurance data based on immigration status shows that approximately 45.1% of non-citizen immigrants lacked health insurance in 2010, compared to only 20.0% of naturalized-citizen immigrants. While both groups of immigrants were uninsured at a higher rate than native-born Americans, these data suggest the problem is worse for non-citizen immigrants.⁶⁸

⁶⁷ U.S. Census Bureau, Current Population Survey: Annual Social and Economic Supplement, Table HI09. Health Insurance Coverage Status by Nativity, Citizenship, and Duration of Residence for All People: 2010, http://www.census.gov/hhes/www/cpstables/032011/health/h09_000.htm.
⁶⁸ U.S. Census Bureau, Current Population Survey: Annual Social and Economic Supplement, Table HI09. Health Insurance Coverage Status by Nativity, Citizenship, and Duration of Residence for All People: 2010, http://www.census.gov/hhes/www/cpstables/032011/health/h09_000.htm.

Percentage of People Without Health Insurance, 2010, Foreign-Born vs. Native-Born



Source: Table HI09 of: U.S. Census Bureau. Current Population Survey: Annual Social and Economic Supplement.

... But immigrants eventually gain health insurance.



Surprising Fact: Among immigrants who have been in the U.S. for at least 40 years, only 8.9% lack health-insurance coverage.

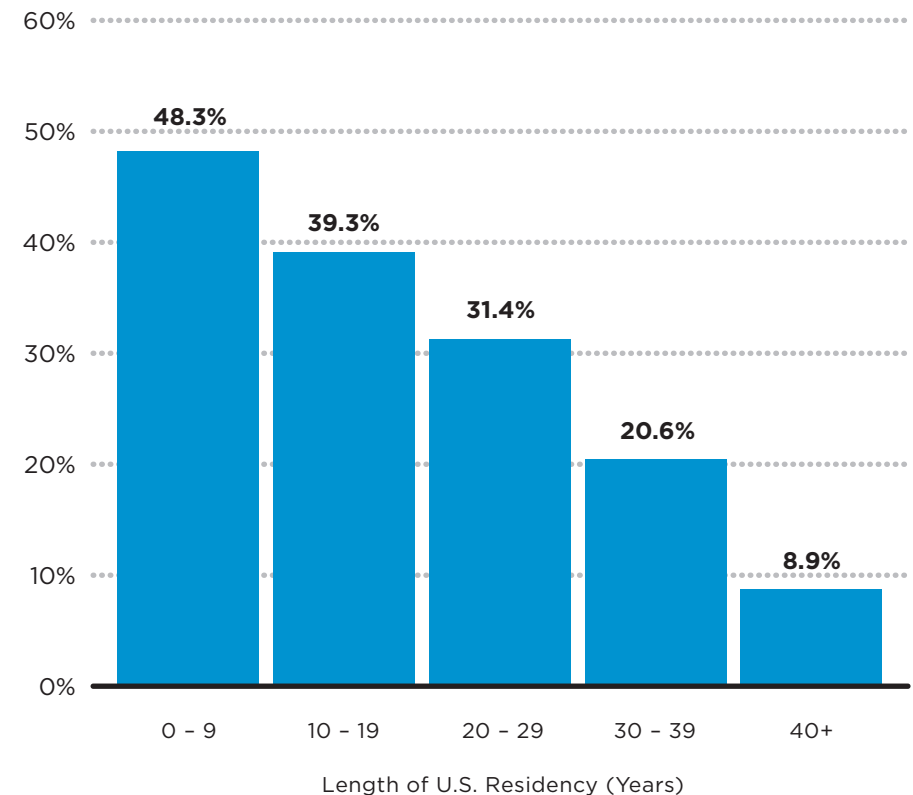
As was evident from the chart on the previous page, among all immigrants, 34.1% of them lack health insurance. The data for immigrants who have lived in the U.S. for less than 10 years are even more troubling.

Among that group, almost half do not carry any form of health insurance. However, immigrants who have lived in the U.S. longer are more likely to have health insurance.

Among immigrants who have lived in the U.S. between 10 and 19 years, 39.3% lack health insurance, and this percentage continues to drop in a stepwise fashion as immigrants live in the country longer. Among immigrants who have lived in the U.S. between 30 and 39 years, 20.6% do not have health insurance. Among those in the country 40 or more years, only 8.9% lack health-insurance coverage.⁶⁹

Medicare — the government-operated health-insurance system for the elderly — is certainly one reason immigrants who have been in the country a long time are more likely to have health insurance. However, Medicare is not the only reason. While approximately 58% of immigrants who had lived in the U.S. for 40+ years in 2010 were covered by Medicare, 57.5% of that same group of immigrants carried health insurance from a private provider.^{70, 71}

Percentage of the Foreign-Born Without Health Insurance by Length of U.S. Residency, 2010



Source: Table HI09 of: U.S. Census Bureau. Current Population Survey: Annual Social and Economic Supplement.

⁶⁹ U.S. Census Bureau, Current Population Survey: Annual Social and Economic Supplement, Table HI09. Health Insurance Coverage Status by Nativity, Citizenship, and Duration of Residence for All People: 2010. http://www.census.gov/hhes/www/cpstables/032011/health/h09_000.htm.

⁷⁰ Author's Calculations, Data from: U.S. Census Bureau, Current Population Survey: Annual Social and Economic Supplement, Table HI09. Health Insurance Coverage Status by Nativity, Citizenship, and Duration of Residence for All People: 2010. http://www.census.gov/hhes/www/cpstables/032011/health/h09_000.htm.

⁷¹ Readers should note that it is possible for an individual to be covered by both Medicare and a privately provided health insurance plan simultaneously.

Immigrants have a low level of education.



Surprising Fact:
The proportion of immigrants who lack a high school degree has shrunk.

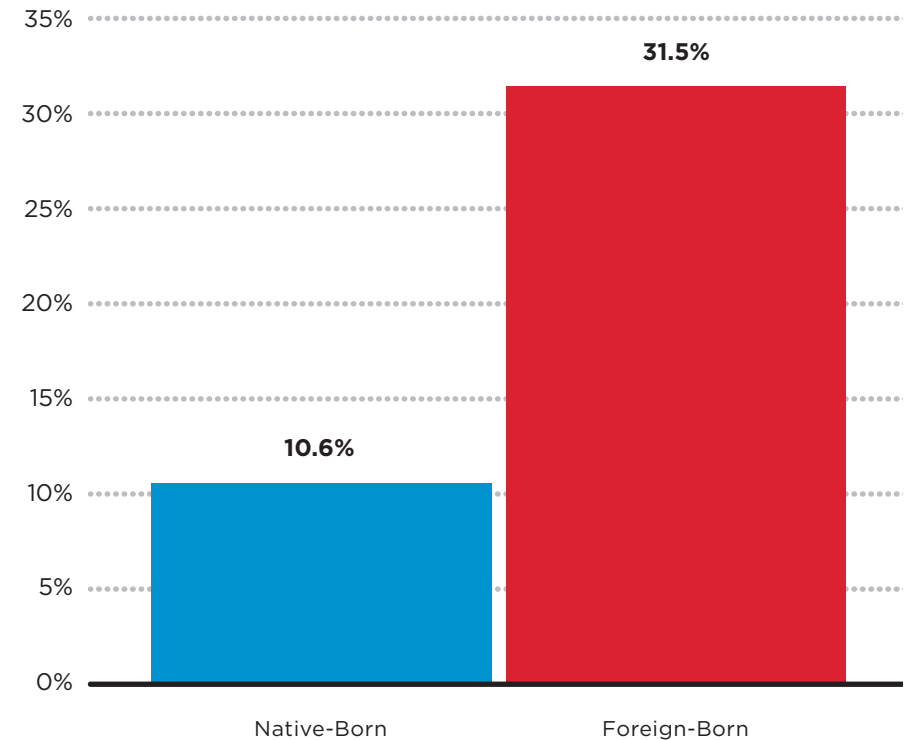
Obtaining higher levels of education is one way that people increase their skill levels and in turn contribute more to the economy, often earning higher wages at the same time.

The data however show that a large share of the U.S. immigrant population has not earned even a high school diploma. In 2011, almost one in every three immigrants did not have a high school diploma (or equivalent such as a GED degree). In comparison, just over one in every 10 native-born Americans lacked a high school diploma in 2011.⁷²

The good news is that more recent immigrants to the U.S. have higher average levels of education compared to the waves of immigrants who came in the past. Approximately 31.5% of immigrants who arrived to the U.S. before 1990 lacked a high school degree in 2011. The proportion was even larger for immigrants who arrived between 1990 and 1999: 33.1% had less than a high school diploma. Yet, among immigrants who arrived to the U.S. since 2000, a somewhat smaller percentage, 29.9%, lacked a high school degree in 2011. While this is still an alarmingly high percentage, the improving educational attainment of immigrants is a reason for optimism.

⁷² U.S. Census Bureau, *Selected Characteristics of the Native and Foreign-Born Populations*, 2011 American Community Survey.

Percentage of People Who Have Not Earned a High School Diploma, 2011, Foreign-Born vs. Native-Born



Source: U.S. Census Bureau, "Selected Characteristics of the Native and Foreign-Born Populations."

Note: Data are for the population 25 years of age and older who have not earned a high school diploma (or an equivalent degree such as a GED).

Immigrants are more likely to be in poverty.



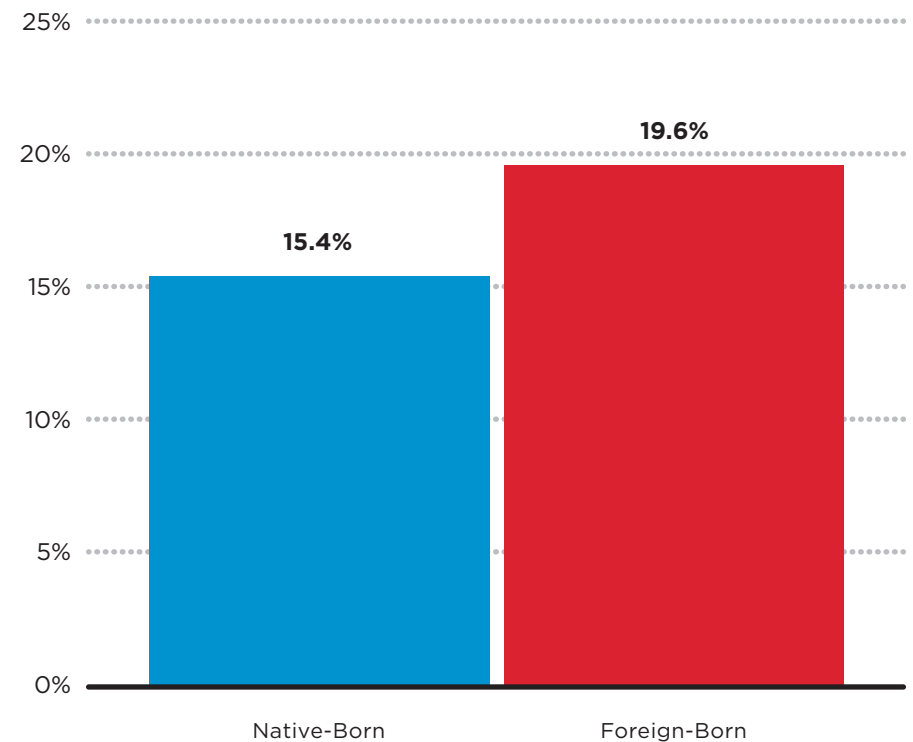
Surprising Fact:
In 2011, 19.6% of immigrant households were living below the poverty level.

Every year, the U.S. federal government calculates the federal poverty threshold based on a formula that accounts for a household's family size and composition.

In 2011, the poverty threshold for a family of four (a family with two parents and two children) was determined to be \$22,811. This means that a four-person family was considered to be living in poverty in 2011 if its total household income was less than \$22,811.⁷³

In 2011, 15.4% of the households of native-born citizens were below the poverty level. The percentage was higher for immigrants: 19.6% of immigrant households were considered to be living in poverty in 2011.⁷⁴ These figures, for both natives and immigrants, are high relative to most years because of the slow recovery from the 2007-2009 recession of the U.S. economy. However, even in non-recessionary years, the data show that immigrant households are more likely to be living in poverty than native households.

Percentage of People Living Below the Federal Poverty Level, 2011, Foreign-Born vs. Native-Born



⁷³ The U.S. Census Bureau's publication of annual poverty thresholds is available at: U.S. Census Bureau, *Poverty Thresholds*, 2011, <http://www.census.gov/hhes/www/poverty/data/threshold/index.html>.

⁷⁴ U.S. Census Bureau, *Selected Characteristics of the Native and Foreign-Born Populations*, 2011 American Community Survey.

Source: U.S. Census Bureau, "Selected Characteristics of the Native and Foreign-Born Populations."

Low-skilled immigrants overuse welfare programs ...



Surprising Fact: Nearly half of low-skilled immigrant households receive a welfare benefit, compared to 30% of similar native-born households.

Low-skilled immigrant households are more likely to receive welfare benefits than the households of low-skilled natives.

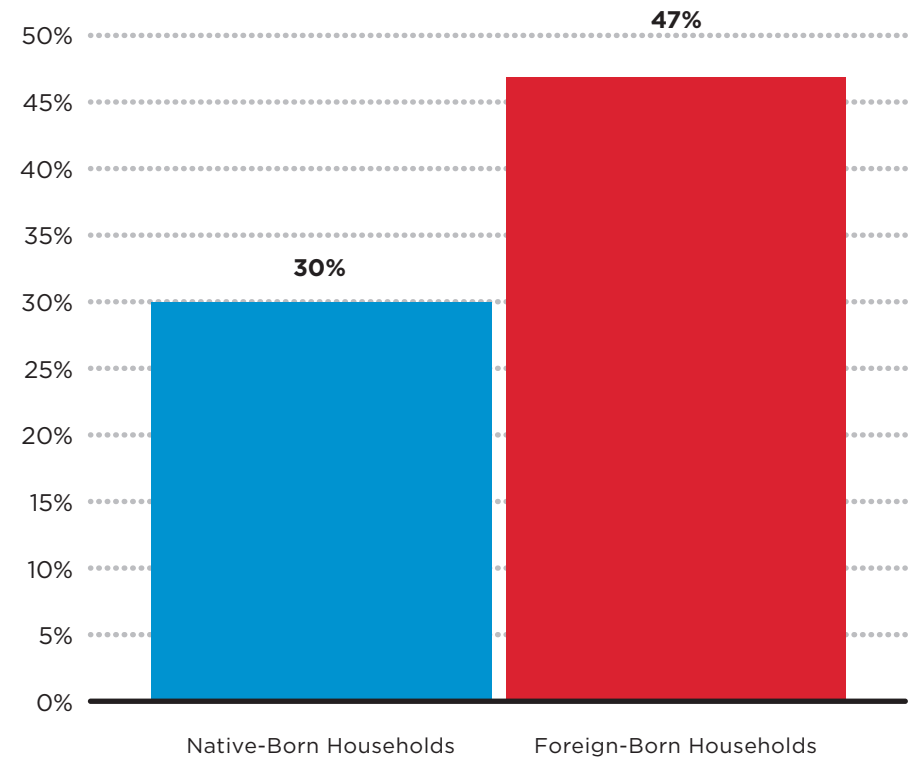
In 2007, almost half of immigrant households that were headed by an individual whose highest level of education was a high school degree received at least one means-tested welfare benefit.⁷⁵ Meanwhile, only 30% of similar households of native-born citizens received a welfare benefit. The data are even worse for households in which the head of household had less than a high school degree. Among such immigrant households, 55% receive welfare benefits, compared to 44% of native households.⁷⁶

The good news, once again, is that the educational attainment of both immigrants and natives has improved in recent years. As educational levels continue to improve, welfare participation will shrink as incomes rise. This is good for households trying to escape poverty and for taxpayers alike.

⁷⁵ Means-tested welfare programs include: public assistance; means-tested health insurance; Supplemental Security Income; Women, Infants and Children (WIC) program benefits; public housing or rental assistance; food stamps; energy assistance; and free or reduced-price school lunch program.

⁷⁶ Pia M. Orrenius and Madeline Zavodny, *Beside the Golden Door: U.S. Immigration Reform in a New Era of Globalization* (Washington, D.C.: AEI Press, 2010), pg. 31.

Percentage of Low-Skilled Households That Receive At Least One Welfare Benefit, 2007, Foreign-Born vs. Native-Born



Source: Orrenius and Zavodny, 2010.

Note: Households in this sample are those for which the highest education level attained by the head-of-household is a high school diploma.

... But better-educated immigrants have a positive impact on government budgets.



Surprising Fact: When immigrants gain more education, they tend to become a net benefit to government budgets over their lifetimes.

Increased levels of educational attainment do more than just reduce welfare reliance. When immigrants gain more education, they tend to become a net benefit to government budgets over their lifetimes, paying more in taxes than they receive in benefits.

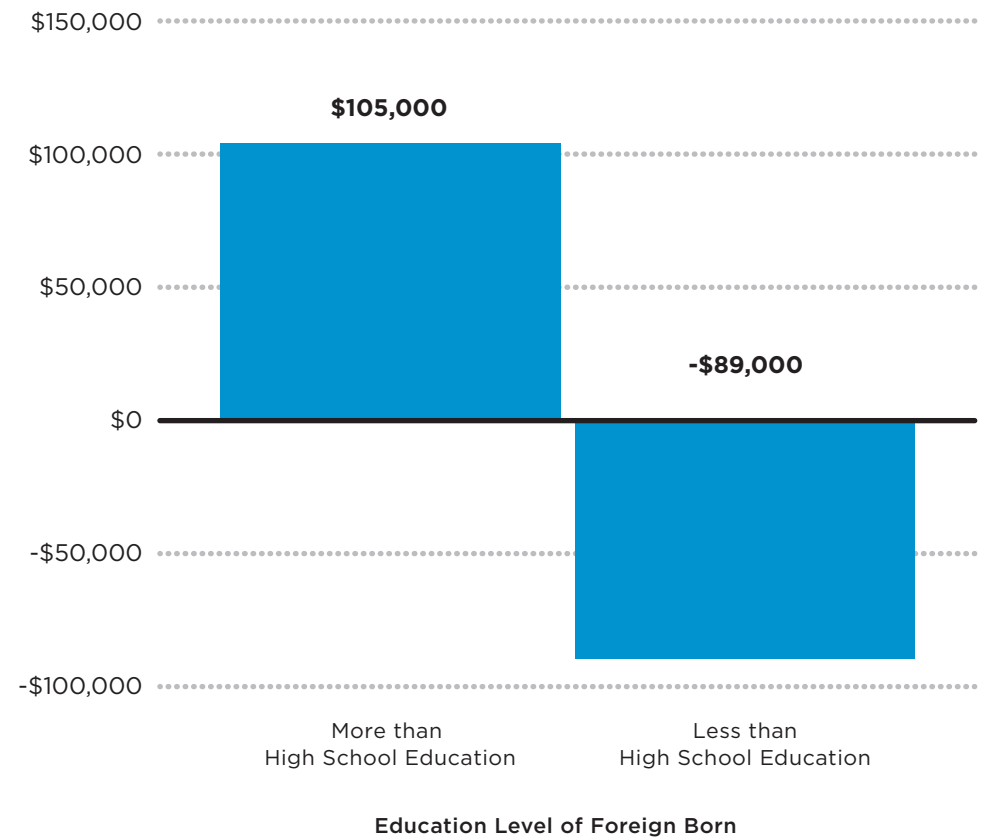
As the chart shows, immigrants with less than a high school education have a negative fiscal impact of almost \$90,000 over their lifetimes. Yet, immigrants with more than a high school education provide a net benefit of approximately \$105,000 to government coffers over their lifetimes.⁷⁷

Pia Orrenius and Madeline Zavodny find that when the fiscal impacts of both high- and low-skilled immigrants are considered, immigrants have virtually no impact on fiscal costs.⁷⁸ One caveat is that the fiscal burden is often quite high in states like California that have generous welfare programs and large low-skilled immigrant populations. However, this problem is not the fault of the immigrants per se, and it can be remedied by reforming the welfare programs. Furthermore, altering immigration policies to encourage more high-skilled immigration would also help to improve government budgets.

⁷⁷ James P. Smith and Barry Edmonston, eds., *The New Americans: Economic, Demographic, and Fiscal Effects of Immigration* (Washington, D.C.: National Academy Press, 1997).

⁷⁸ Pia M. Orrenius and Madeline Zavodny, *Beside the Golden Door: U.S. Immigration Reform in a New Era of Globalization* (Washington, D.C.: AEI Press, 2010), pg. 54.

Average Fiscal Impact of the Foreign-Born by Education Level



Source: Smith and Edmonston, 1997.

Note: Fiscal Impact is measured in present value terms.

Too many immigrants speak English poorly.



Surprising Fact: Immigrants who have been in the U.S. longer speak English better than recent arrivals.

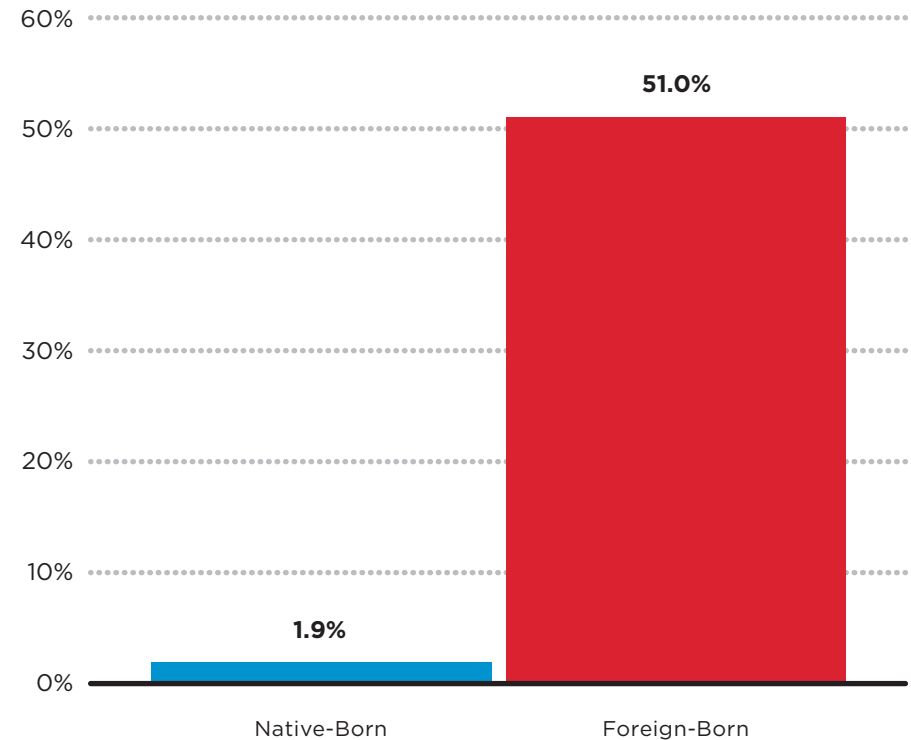
Perhaps the most common complaint levied against immigrants is that too many of them do not speak English, or that they speak the language very poorly.

While many immigrants do in fact speak the English language, data do suggest that proficiency in English remains a problem for a large portion of immigrants. In 2011, more than half of the U.S. foreign-born population reported speaking English less than “very well.”⁷⁹

The good news, however, is that immigrants improve their English-speaking proficiency the longer they remain in the U.S. When surveyed in 2011, 43.9% of immigrants who entered the U.S. before 1990 said they spoke English less than “very well.” While this is still a large proportion, it is significantly better than the 57.5% of immigrants who entered the U.S. after 2000 who reported speaking English less than “very well.”⁸⁰

⁷⁹ U.S. Census Bureau, *Selected Characteristics of the Native and Foreign-Born Populations*, 2011 American Community Survey.
⁸⁰ Ibid.

Percentage of People Who Speak English Less than “Very Well,” 2011, Foreign-Born vs. Native-Born



Source: U.S. Census Bureau, “Selected Characteristics of the Native and Foreign-Born Populations.”

Higher U.S. Economic Growth through Immigration



Most U.S. Green Cards go to relatives of immigrants rather than to immigrants wanting to work.



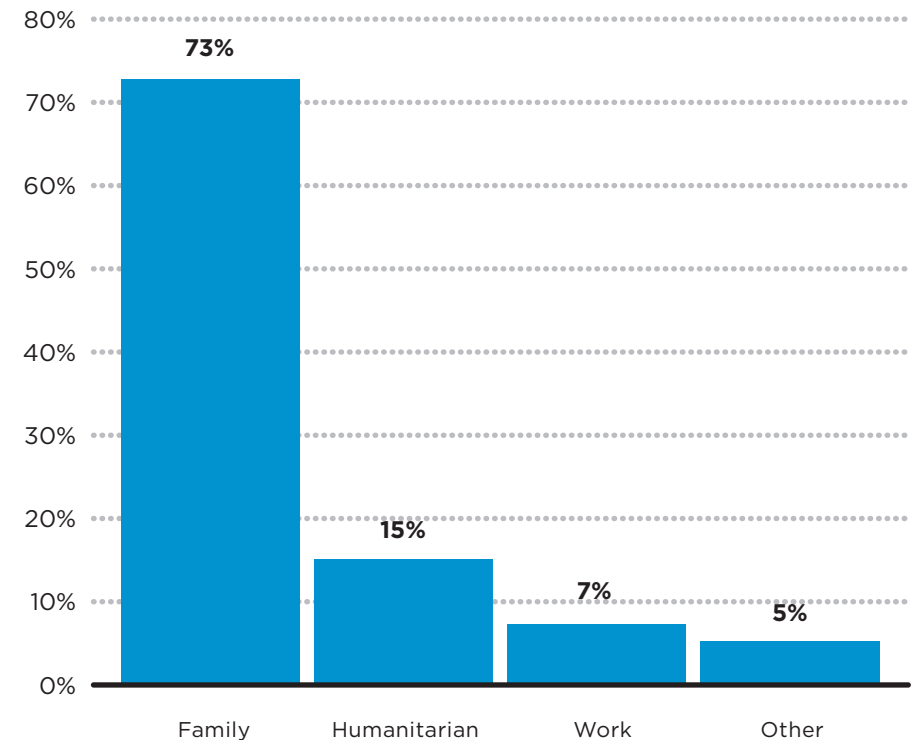
Surprising Fact: In 2010, only 7% of all U.S. Green Cards were distributed to work-based immigrants.

The U.S. Green Card is a highly sought-after immigration certificate because it gives immigrants legal permanent resident status. This allows them to legally live and work in the country on a permanent basis, and puts them on a pathway to obtaining U.S. citizenship.

The Green Card admission classifications fall into four broad categories: family, humanitarian, work, and other. The U.S. immigration system gives strong preference to those applying for Green Cards for family reasons. Immigrants wanting to come to the U.S. primarily to work have much more difficulty obtaining a Green Card. According to data from the OECD, 73% of U.S. Green Cards granted in 2010 went to those applying for family reasons. Another 15% of Green Cards went to those entering the U.S. for humanitarian reasons, while only 7% went to workers.⁸¹ This anti-worker bias is a significant impediment to economic growth.

⁸¹ "Trends in International Migration Flows and in the Immigrant Population," in *International Migration Outlook 2012* (OECD Publishing, 2012).

Distribution of U.S. Green Cards by Category, 2010



Source: OECD (2012) "Trends in International Migration Flows and in the Immigrant Population".

Other OECD countries prioritize Green Cards for work-based immigration.



Surprising Fact: Among OECD countries, the U.S. places the least amount of emphasis on work-based immigration.

While U.S. immigration policies seem to have an anti-worker bias, many other developed countries understand they face global competition for skilled immigrant workers.

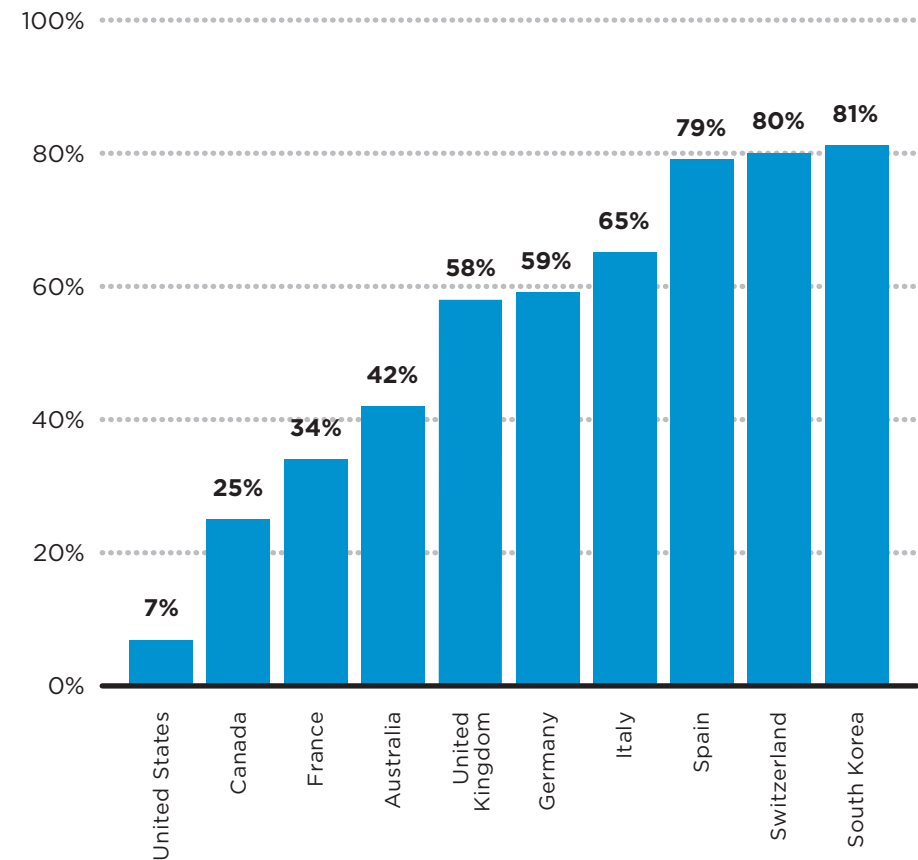
In order to remain attractive to these workers, most other developed countries give strong preference for Green Cards to immigrants who want to work. In South Korea and Switzerland, more than 80% of Green Cards were allocated to work-based immigrants in 2010. Spain, Italy, and the United Kingdom all allocated more than half of their Green Cards to work-based immigrants. While countries like Australia, France, and Canada give a smaller proportion of Green Cards to workers, their emphasis is still much greater than that of the U.S.⁸²

The implications of America's Green Card policy are important because work-based immigrants often are highly skilled and provide substantial benefits to the economy. At the same time, immigrants arriving for family reunification reasons are less likely to be highly skilled and offer fewer benefits to the economy. Economists Pia Orrenius and Madeline Zavodny point out that by prioritizing high-skill, work-based immigration over low-skilled family reunification immigration, the U.S. could increase the economic benefits associated with immigration, while minimizing the adverse labor market consequences and fiscal costs.⁸³

⁸² "Trends in International Migration Flows and in the Immigrant Population," in *International Migration Outlook 2012* (OECD Publishing, 2012).

⁸³ Pia M. Orrenius and Madeline Zavodny, *Beside the Golden Door: U.S. Immigration Reform in a New Era of Globalization* (Washington, D.C.: AEI Press, 2010).

Percentage of All Green Cards Distributed by Each Country That Are Work-Based Green Cards, 2010



Source: OECD (2012), "Trends in International Migration Flows and in the Immigrant Population."

A growing share of immigrants possess a college degree ...



Surprising Fact: Recent immigrants to the U.S. are more likely than natives to have a bachelor's degree.

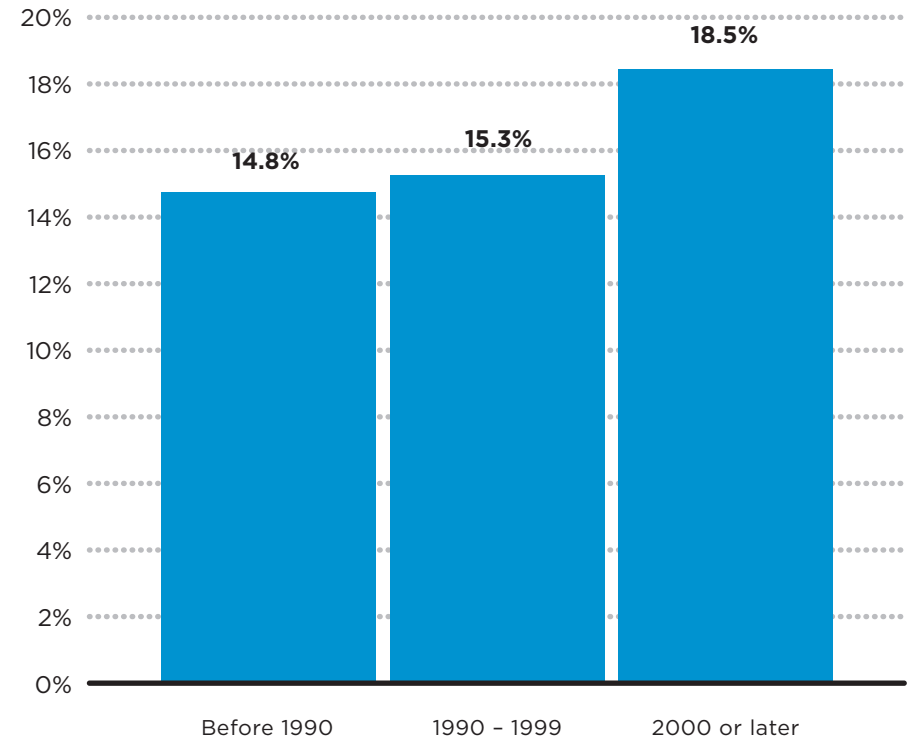
Highly educated immigrants are especially beneficial to the U.S. economy. As of 2011, native-born citizens were still more likely to possess a bachelor's degree compared to immigrants.

In 2011, 18.3% of all native-born citizens aged 25 years and older had earned a bachelor's degree, compared to 16.0% of immigrants.⁸⁴

However, 18.5% of immigrants who arrived to the U.S. since 2000 possessed a bachelor's degree in 2011. This is a higher percentage than the average for natives in 2011, and reflects the very positive trend of improving educational achievement among recent immigrants to the U.S.⁸⁵ If this trend continues, we can expect the economic contributions of immigrants to increase further in coming years.

⁸⁴ U.S. Census Bureau, *Selected Characteristics of the Native and Foreign-Born Populations*, 2011 American Community Survey.
⁸⁵ Ibid.

Percentage of All Foreign-Born People Who Possess a Bachelor's Degree, by Period of Entry into the United States, 2011



Source: U.S. Census Bureau, "Selected Characteristics of the Foreign-Born Population by Period of Entry Into the United States."

Note: Data are from individuals 25 years of age and older.

... And immigrants are more likely than natives to have an advanced degree.



Surprising Fact: Immigrants do not always conform to stereotype. In 2011, 11.3% of immigrants possessed a graduate or professional degree, compared to 10.5% of natives.

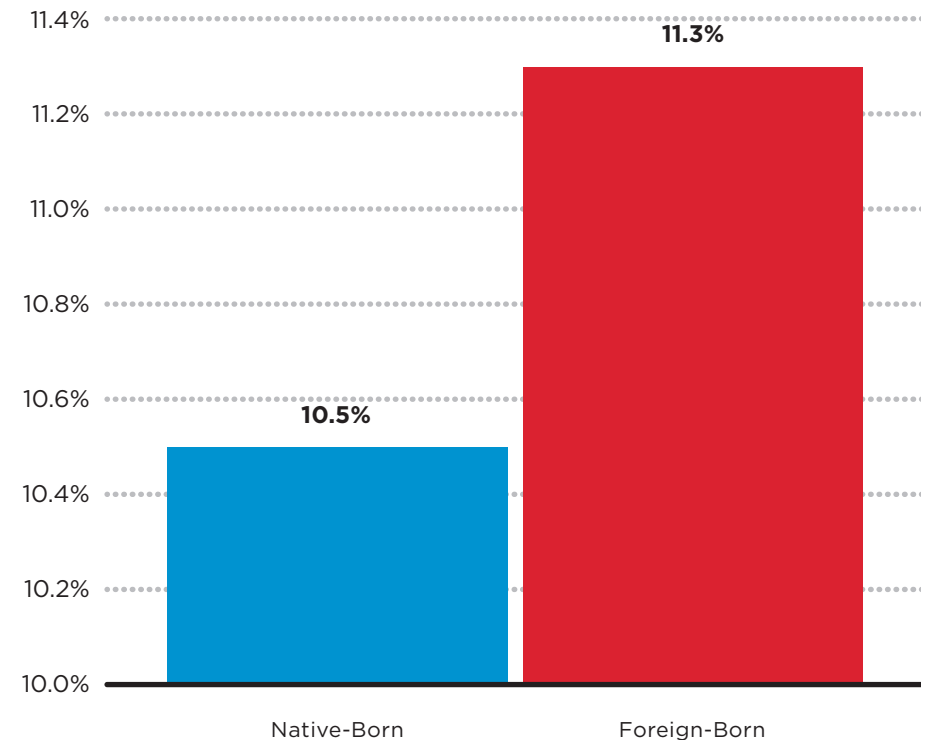
American workers who have earned graduate and professional degrees are among the country's most productive members of the economy.

What's interesting is that although immigrants are slightly less likely to have a bachelor's degree compared to natives, they are more likely to have earned a graduate or professional degree. In 2011, 11.3% of immigrants possessed a graduate or professional degree compared to 10.5% of natives.⁸⁶ Of immigrants who arrived to the U.S. since 2000, 13.4% possessed a graduate or professional degree in 2011. This is especially impressive considering that 10.6% of immigrants who arrived to the U.S. between 1990 and 1999 reported possessing a graduate or professional degree in 2011.⁸⁷ These most highly educated immigrants are crucial to America's future economic growth.

⁸⁶ U.S. Census Bureau, *Selected Characteristics of the Native and Foreign-Born Populations*, 2011 American Community Survey.

⁸⁷ Ibid.

Percentage of the Native-Born and Foreign-Born Who Have Earned a Graduate or Professional Degree, 2011



Source: U.S. Census Bureau, "Selected Characteristics of the Native and Foreign-Born Populations."

With more immigrants in the U.S., Americans would be more likely to finish high school.



Surprising Fact:
An increase in immigration creates a positive incentive for natives to gain more education.

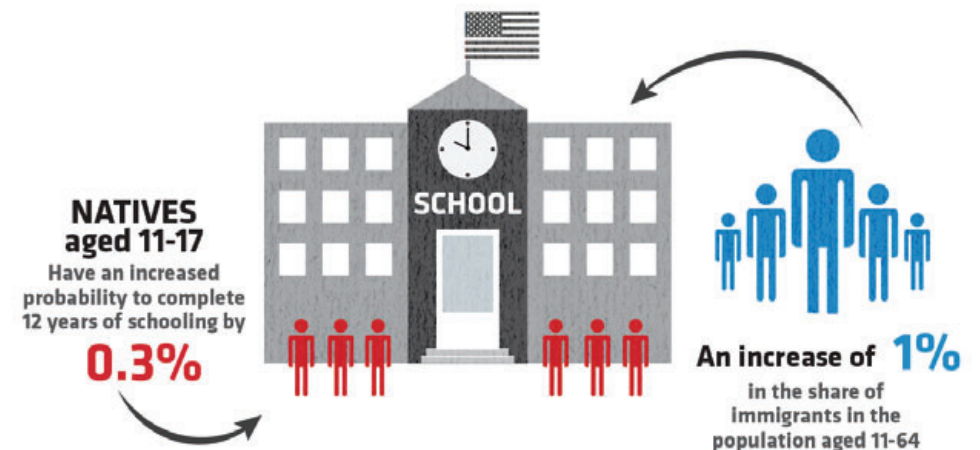
One widely unknown benefit of immigration is the positive effect immigrants have on the educational attainment of natives. Research by Jennifer Hunt (2012) finds that when more immigrants are present in the population, natives are more likely to complete high school.

Specifically, Hunt's research finds that "an increase of one percentage point in the share of immigrants in the population aged 11-64 increases the probability that natives aged 11-17 eventually complete 12 years of schooling by 0.3 percentage points."⁸⁸

To be sure, an influx of immigrants can adversely affect the education of natives when they compete with each other for limited educational resources. Hunt does find evidence of this effect. However, an influx of immigrants also leads to greater competition in labor markets, especially in low-skilled labor markets. This creates a strong incentive for natives to gain more education. Hunt finds that the latter effect is more dominant, and thus concludes that on net immigrants help boost the educational attainment of natives.

⁸⁸ Jennifer Hunt, *The Impact of Immigration on the Educational Attainment of Natives*, working paper no. 18047 (Cambridge: National Bureau of Economic Research, 2012).

"an increase of one percentage point in the share of immigrants in the population aged 11-64 increases the probability that natives aged 11-17 eventually complete 12 years of schooling by 0.3 percentage points."



Source: Hunt, 2012.

More immigrants would help fund Social Security.



Surprising Fact: While immigration alone cannot solve the problems confronting Social Security, on average, immigrants do help the solvency of the program.

Social Security relies on the earnings of current workers to fund the pensions of retirees. As America's large "baby boom" generation reaches retirement age, the ratio of workers to retirees will shrink.

According to the Social Security Administration, in 1965, there were 4.0 workers for every Social Security beneficiary.

But by 2010 the ratio fell to 2.9, and the imbalance is expected to worsen in coming years. With more retired people depending on fewer workers to support them, the long-term solvency of the program is at risk.⁸⁹

While immigration alone cannot solve the problems confronting Social Security, on average, immigrants do help the solvency of the program. There are two main reasons for this. First, as is shown in the chart, immigrants have a significantly higher fertility rate than natives. In the period 2009 to 2010, immigrants had a fertility rate of 70.3 births per 1,000 women, compared to only 51.5 births per 1,000 women for native-born citizens.⁹⁰ Increasing the fertility rate helps future generations of retirees since when it is their turn to retire, there will be more workers to support them.

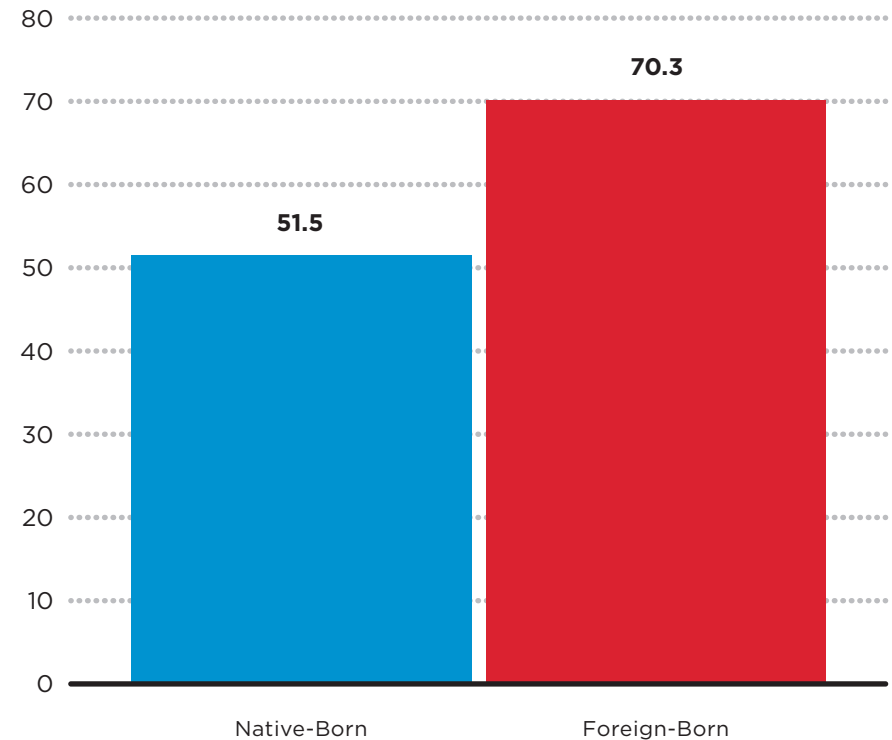
Immigrants are also good for Social Security because they are much more likely than natives to be of working age. Data show that in 2011, 72.2% of immigrants were between the ages of 25 and 64 (working age), compared to only 50.0% of native-born citizens. Since immigrants also join the labor force and are employed at high rates, they help stabilize the worker-to-beneficiary ratio. Paul Van de Water finds that "an increase in net-immigration of 300,000 persons would eliminate about one-tenth of Social Security's 75-year deficit."⁹¹

89 U.S. Social Security Administration, *Ratio of Covered Workers to Beneficiaries*, <http://www.ssa.gov/history/ratios.html>.

90 U.S. Census Bureau, *Selected Characteristics of the Native and Foreign-Born Populations*, 2011 American Community Survey.

91 Paul N. Van De Water, *Immigration and Social Security*, report (Washington, D.C.: Center on Budget and Policy Priorities, 2008), <http://www.cbpp.org/files/11-20-08socsec.pdf>.

Number of Births per 1,000 Women during the Previous 12 Months, 2009-2010



Source: U.S. Census Bureau, "Selected Characteristics of the Native and Foreign-Born Populations."

Note: Data are for women who are 15 to 50 years of age.

Immigrants boost property values in America's cities.



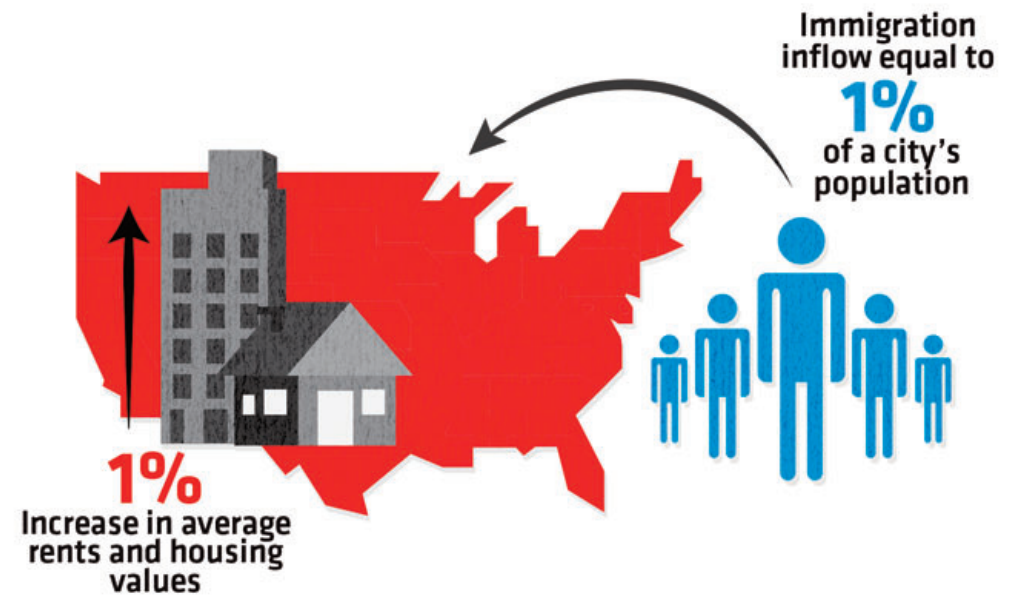
Surprising Fact: Immigrants are an important component of urban revitalization because they help raise property values.

Property values are one indicator that tells us much about the economic health of a city. High property values signal that an area is a desirable place to live and work, while low property values suggest that an area is less attractive.

What is the effect of large-scale immigration into a city? Does it make that city more attractive or less attractive?

Research by Albert Saiz finds that an inflow of immigrants increases the demand for housing and thus raises property values. While an increase in demand almost always does lead to higher prices, it is not a foregone conclusion that this would be the case with respect to immigration and housing prices. If new immigrants displace native-born citizens from a city, one would expect to find falling housing prices. However, Saiz finds convincing evidence that immigrants do not displace natives on a one-to-one basis, and that in fact "an immigration inflow equal to 1% of a city's population is associated with increases in average rents and housing values of about 1%." Saiz concludes that this positive impact from immigration is of a larger magnitude than the impact of immigrants on other areas of the economy.⁹²

"...an immigration inflow equal to 1% of a city's population is associated with increases in average rents and housing values of about 1%."



Source: Saiz, 2007.

⁹² Albert Saiz, "Immigration and Housing Rents in American Cities," *Journal of Urban Economics* 61, no. 2 (2007).

Immigrants with a college degree are almost twice as likely to be small-business owners.



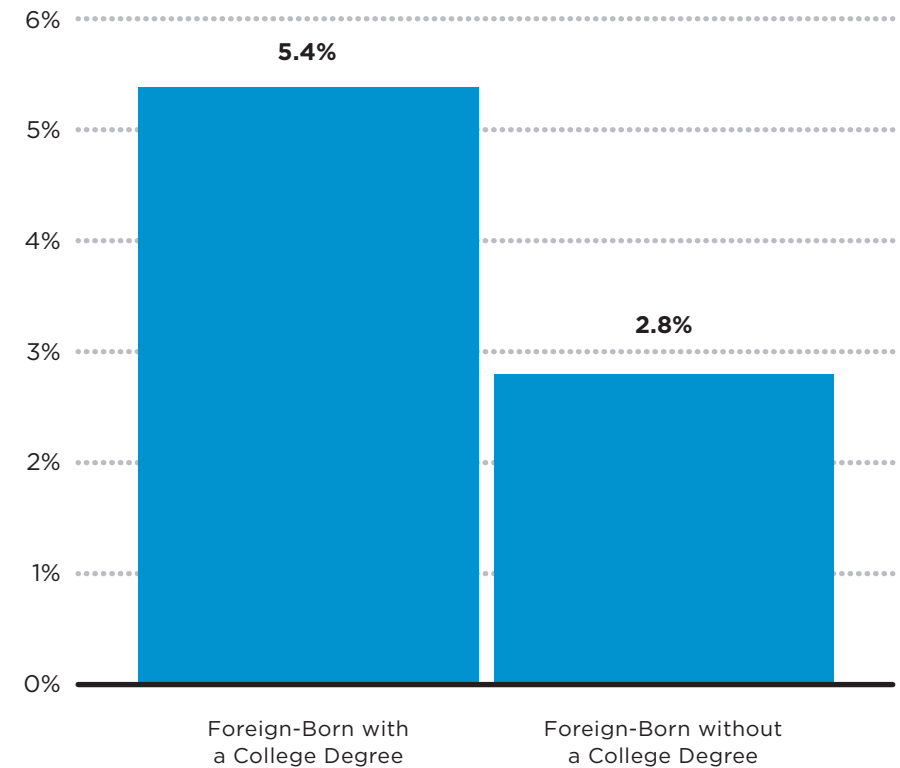
Surprising Fact: In 2010, 5.4% of immigrants with a college degree owned a small business, compared to 2.8% of immigrants without a college degree.

As previously shown, the educational attainment of recent immigrants to the U.S. has improved over the waves of immigrants who came to the U.S. in earlier decades.

Improved educational attainment means a lot of good things, and one related outcome to more education is an increased likelihood to own a small business. According to research by David Kallick (2012), 2.8% of immigrants without a college degree reported owning a small business in 2010. Meanwhile, 5.4% of immigrants with a college degree said they owned a small business, the equivalent of almost twice the rate compared to immigrants who had not completed college.⁹³ As more and more immigrants earn college degrees, we can expect the incidence of small-business ownership to increase in America. This is very good news for our economy.

⁹³ David D. Kallick, Immigrant Small Business Owners: A Significant and Growing Part of the Economy, report (Washington, DC: Fiscal Policy Institute, 2012), <http://fiscalpolicy.org/wp-content/uploads/2012/06/immigrant-small-business-owners-FPI-20120614.pdf>.

Percentage of Foreign-Born Who Own a Small Business by Education Level, 2010



Source: Kallick, 2012.

More immigrants would mean a rise in patents.

Surprising Fact: With more international graduate students studying in America, the U.S. would benefit from a substantial increase in patents.

International graduate students contribute highly to the generation of new ideas. We have seen elsewhere in this book that immigrants are responsible for a hugely disproportionate share of U.S. patents.

Research by Gnanaraj Chellaraj et al. (2008) suggests that augmenting the share of foreign-born graduate students studying at U.S. universities would further increase U.S. patenting. In fact, a 10% increase in the number of foreign-born graduate students is associated with a 4.5% increase in U.S. patent applications. Additionally, patent grants (patents actually awarded) would increase by 5% to non-university institutions, while university-based patent grants would rise 6.8%. The researchers rightly warn that “reductions in foreign graduate students from visa restrictions could significantly reduce U.S. innovative activity.”⁹⁴

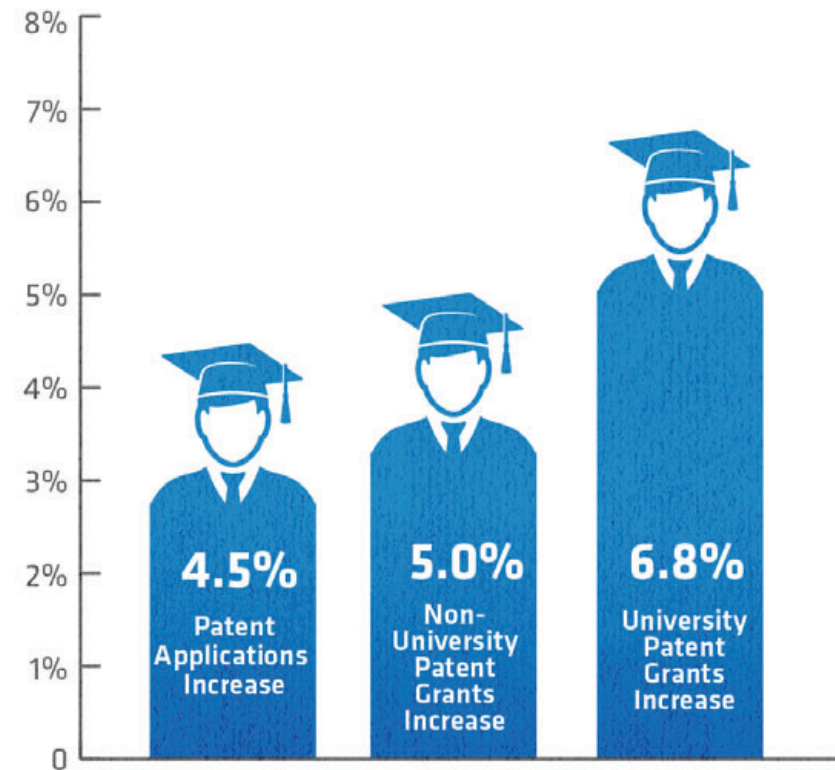
More skilled immigrants among the general population would also increase U.S. patenting. Jennifer Hunt and Marjolaine Gauthier-Loiselle find that “a one percentage point rise in the share of immigrant college graduates in the population increases patents per capita by 6%.” Hunt and Gauthier-Loiselle also consider the side effects of immigrant inventors, and find that immigrants do not crowd out native inventors. Rather, immigrant inventors have a positive effect on native inventors such that when these positive spillover effects are included in their model, patents per capita increase “about 15% in response to a one percentage point increase in immigrant college graduates.”⁹⁵

⁹⁴ Gnanaraj Chellaraj, Keith E. Maskus, and Aaditya Mattoo, “The Contribution of International Graduate Students to US Innovation,” *Review of International Economics* 16, no. 3 (2008).

⁹⁵ Jennifer Hunt and Marjolaine Gauthier-Loiselle, “How Much Does Immigration Boost Innovation,” *American Economic Journal: Macroeconomics*, American Economic Association 2, no. 2 (2010).



Effects of a 10% Increase in the Number of Foreign-Born Graduate Students



Source: Chellaraj et al., 2008.

Immigrants are a solution to help the U.S. economy reach 4% annual growth.



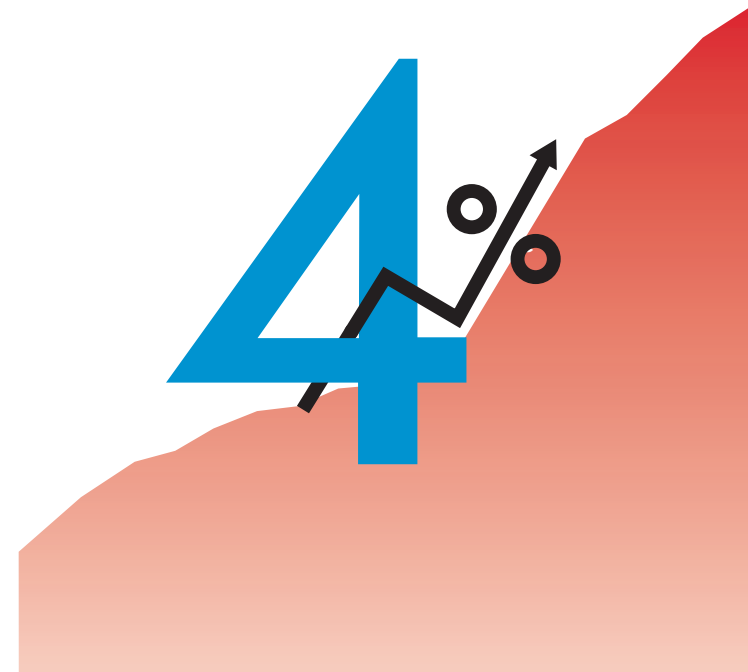
Surprising Fact: If the U.S. had adopted a pro-growth immigration policy framework in the 1960s, real GDP growth would have averaged about 3.1% growth in subsequent years, rather than its actual 2.8% growth.

Increased immigration would take the U.S. economy closer to 4% annual GDP growth. Real growth in GDP averaged 2.81% per year between 1970 and 2011. However, with a pro-growth immigration system in place, economic growth could have been significantly higher.

In a forthcoming manuscript, economist Richard Vedder estimates that if the U.S. had adopted a pro-growth immigration policy framework in the 1960s, real GDP growth would have averaged approximately 3.1% in those years. This means that U.S. GDP would have been approximately \$2 trillion greater in 2011 than was actually the case.

Although immigration reform alone does not take the economy to 4% growth, Vedder notes that immigration reform in earlier decades could have closed the gap by more than a quarter between actual GDP growth and our goal of real GDP growth of 4% on an annual basis. Combined with other pro-growth policies, immigration reform is a key component to achieving strong and lasting economic growth.⁹⁶

⁹⁶ Richard Vedder, forthcoming manuscript (Dallas: George W. Bush Institute, 2012).



More on immigration and economic growth...

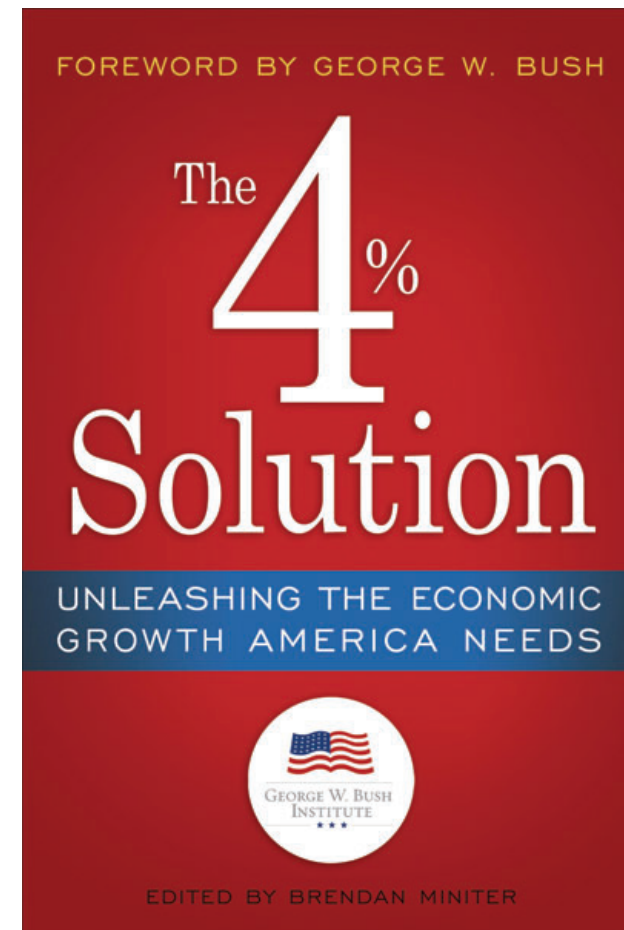
Surprising Fact: This handbook is part of a broader series of immigration publications by the George W. Bush Institute

This manuscript is part of a broader series of publications by the George W. Bush Institute addressing the topic of immigration and economic growth.

In 2013 the Bush Institute will publish two additional immigration manuscripts. The first is by Richard Vedder and it examines the historical role immigration has played on the U.S. economy and estimates the potential future benefits that immigrants could bestow on the U.S. economy. The final manuscript will be by Stephen Moore.

These three manuscripts come on top of two excellent chapters on immigration and economic growth that appear in the Bush Institute's first book, "The 4% Solution," published in July 2012 by Crown Business. In "The 4% Solution," Gary Becker, the Nobel Prize-winning economist, discusses the changing nature of immigration between Mexico and the U.S. In a second chapter on immigration and economic growth, Pia Orrenius and Madeline Zavodny provide detailed evidence linking immigration and economic growth, and stress the need for pro-growth immigration reform that expands work-based immigration.

In December 2012, the Bush Institute and the Federal Reserve Bank of Dallas collaborated to host a conference on immigration and economic growth. The conference, "How Immigrants Grow the U.S. Economy," featured prominent scholars and business leaders who discussed the role immigrants play in the U.S. economy and how current immigration policies could be improved to enhance economic growth. To view the conference proceedings, please visit our website at: www.fourpercentgrowth.org.



Acknowledgements

I am grateful to a number of important people who made this project possible. First, I am inspired by President Bush's efforts to reform our nation's immigration laws and am invigorated by his continued enthusiasm for this noble cause. I thank Ambassadors Mark Langdale and James K. Glassman for the opportunity to work for the Bush Institute, a historic institution. Amity Schlaes, my boss and mentor was the driving force behind this project. Robert Asahina improved the manuscript considerably. My colleagues Michael McMahan and Julia Taylor provided behind-the-scenes help.

This handbook stands on the shoulders of the countless scholars who have painstakingly researched the relationship between immigration and economic growth. Their contributions provide the foundation from which we can better understand the role immigrants play in our society.

I owe much to my former professor and good friend Richard Vedder, himself one of our country's top thinkers on immigration. Fred Wollenberg and his team at the Bergman Group did fabulous work on the design and lay-out of this handbook. I thank Pia Orrenius of the Federal Reserve Bank of Dallas for her advice and research guidance. Mario Kranjac and Eric Schmitterer provided valuable research help. Seth Lipsky read parts of the handbook and provided helpful suggestions and much-appreciated encouragement. Any remaining errors, of course, are my own.

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