

# Economics Group

## Special Commentary

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# How Important Are Foreign Workers to the U.S. Labor Supply?

## Executive Summary

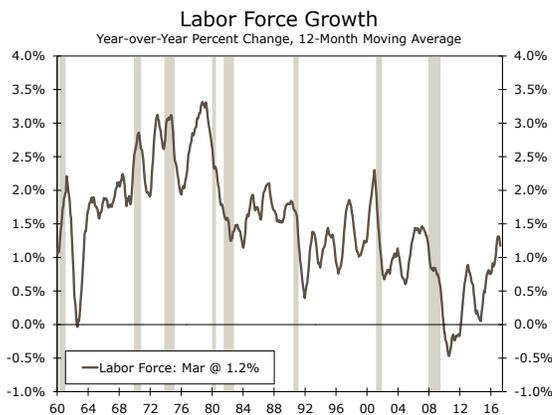
Business and consumer confidence have surged amid hopes that new policies out of Washington may finally get the U.S. economy out of its 2 percent growth rut. While we expect a modest bump to growth in 2018 due to the mix of new policies<sup>1</sup>, long-term challenges for a higher, sustainable pace of economic growth persist. Included is a secular slowdown in the labor supply, a key component of potential growth. In this report, we look at the role foreign workers have played in the U.S. labor supply and how policy changes could impact future labor force growth.

Growth in the U.S. labor supply has been slowing for decades due to weaker population growth and lower labor force participation (Figure 1). Foreign workers, however, have mitigated this slowdown. Not only has immigration provided substantial support to population growth, but foreign-born residents are also more likely to participate in the labor market. All told, foreign-born workers have accounted for half the growth in the labor supply over the past decade according to data from the Bureau of Labor Statistics (Figure 2).

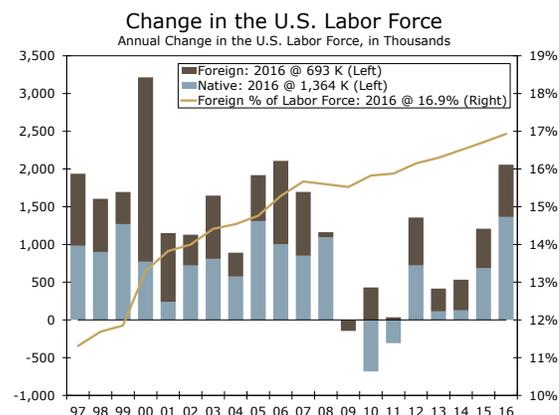
*Foreign-born workers have accounted for half the growth in the labor force over the past decade.*

With the native U.S. population expected to grow more slowly in coming years, foreign workers will remain a significant source of labor. Yet tighter immigration policies/enforcement and source countries' own demographic challenges suggest risks loom to this stream of labor. A slowdown in the number of foreign workers entering the labor force in the near term could exacerbate emerging wage pressures, while in the medium term it could reduce the economy's potential growth rate directly through lower labor supply and indirectly through lower productivity.

**Figure 1**



**Figure 2**



Source: U.S. Department of Labor and Wells Fargo Securities

<sup>1</sup> See "Fiscal Policy & Our Economic Outlook" (Feb. 8, 2017). Any of our reports cited in the following pages are available upon request.



## Revisiting the “Potential” Problem

Economic growth is ultimately a function of the inputs to production, according to a growth accounting framework. Those components can be boiled down to capital, labor and total factor productivity (how well labor and capital are combined). As we have discussed in previous reports, productivity growth, whether measured by total factor productivity or more simply labor productivity (which captures the capital contribution), has been slowing since the mid-2000s.<sup>2</sup> Since 2004, labor productivity has averaged only 1.3 percent per annum, a full percentage point slower than during the prior 50 years.

That leaves the labor supply to maintain the economy’s potential growth rate. Yet growth in the labor supply has also slowed over the past few decades (Figure 1). The labor force grew at an average annual rate of 1.7 percent in the second half of the 20th century, but growth has slowed to half that pace since 2000. Whereas U.S. GDP growth averaged 3.5 percent from 1948-2007, the weakness in productivity and the labor supply over the past decade suggest potential growth has fallen below 2 percent.<sup>3</sup>

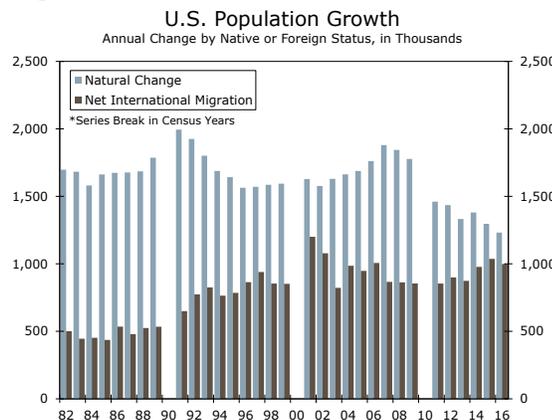
## What’s Behind the Slowdown in the U.S. Labor Supply?

Labor supply is dependent on two factors—the size of the working-age population and the rate at which that population participates in the labor market. Both of these components have contributed to the recent weaker labor supply dynamics. Labor force growth, however, would have been even slower if it weren’t for the inflow of foreign-born workers. Although only about one-sixth of workforce, foreign-born workers have accounted for half the growth in the U.S. labor force over the past two decades (Figure 2).<sup>4</sup>

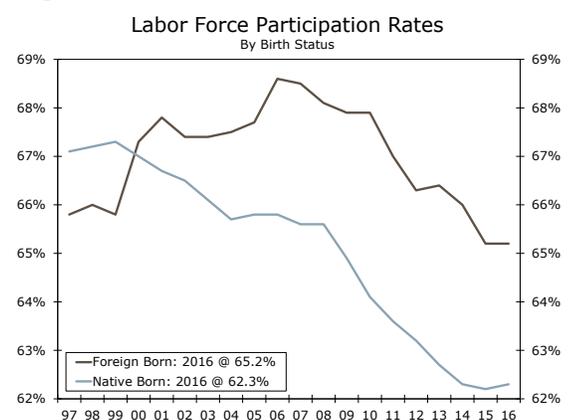
Population growth in the United States has been slowing since the Baby Boom peak. As illustrated in Figure 3, the slowdown can be traced to weaker population growth among the native population, where birth rates have been declining. In 2016, the natural increase (births minus deaths) in the population registered the smallest gain since annual data began in 1982. Meanwhile, population growth derived from net immigration (immigrant inflows minus emigrant outflows) has continued on at a steady pace (dark bars in Figure 3). As a result, immigration has become an increasingly important source of population growth; foreign-born residents have grown from 11.1 percent of the population to 16.3 percent over the past two decades.

*Population growth in the United States has been slowing since the Baby Boom.*

**Figure 3**



**Figure 4**



Source: U.S. Department of Commerce, U.S. Department of Labor and Wells Fargo Securities

<sup>2</sup> See “Idled: What Happened to Productivity?” (Jul. 6, 2015).

<sup>3</sup> See “Potential Growth: Slower Future” (Jan. 12, 2016).

<sup>4</sup> According to the Bureau of Labor Statistics, the foreign born include legally-admitted immigrants, refugees, temporary residents such as students and temporary workers and undocumented immigrants. Data are not collected separately for legal and illegal immigrants.

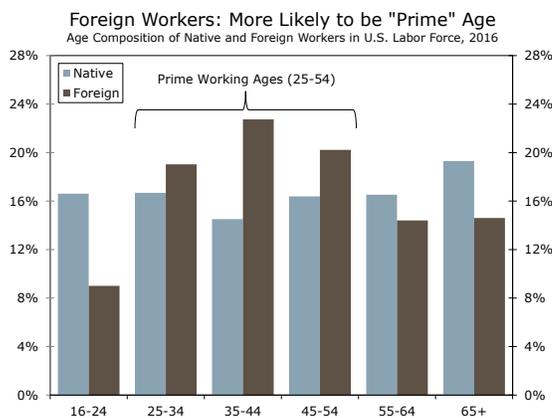
Labor force participation, the second determinant of the labor supply, has also weakened over the past two decades. While about half the decline since the past recession can be traced to the aging of the U.S. population, participation rates have fallen among younger workers, including those in their “prime” (ages 25-54). Partially offsetting the overall decline in participation, however, has been the rise in foreign-born residents, who have higher labor force participation rates than the native-born population (Figure 4).

**Foreign Workers in the U.S. Labor Market**

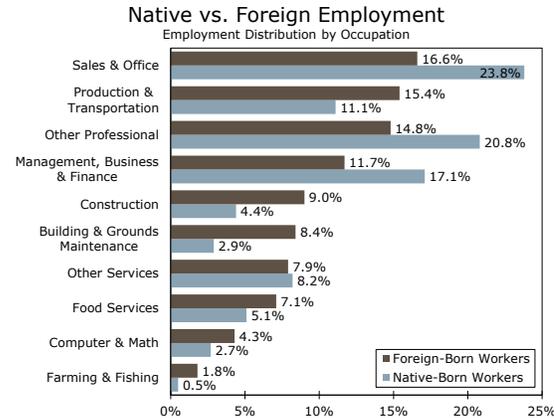
Higher participation rates among the foreign-born population are perhaps not surprising given that many immigrants come to the U.S. primarily for the economic opportunities the United States affords. The foreign-born population also has a higher share of prime-age workers and men, two characteristics both associated with higher participation rates (Figure 5). In particular, foreign-born men in their prime working years are more likely to be in the labor market, with a labor force participation rate more than four points higher than U.S. born men of the same age.

**Labor force participation is higher among foreign-born workers.**

**Figure 5**



**Figure 6**



**Source: U.S. Department of Labor and Wells Fargo Securities**

While it is not uncommon to believe that the increase in foreign-born workers has depressed the participation rates of native-born workers, research suggests that in the aggregate, immigration has had no significant effect on employment opportunities for native-born workers.<sup>5</sup> Rather than pushing out U.S.-born workers, foreign-born workers increase the total number of jobs in the economy by raising the labor supply and supporting the expansion of U.S. companies.

Where native-born workers compete directly with foreign-born workers, employment and earnings can be affected.<sup>6</sup> These effects, however, are found to be small and statistically insignificant across the aggregate labor market as foreign and native workers are typically employed in different occupations and industries. Foreign-born workers tend to be over-represented in fields on the low and high end of the skill-spectrum (Figure 6). Among lower-skilled occupations, services, construction and janitorial/maintenance jobs represent the largest share held by foreign-born workers relative to native-born workers. Within industries, foreign-born workers tend to hold more physical jobs, while native-born workers tend to hold management or supervisory roles.<sup>7</sup> In higher-skilled roles, foreign-born workers are more likely to

<sup>5</sup> Peri, Giovanni. 2010. “The Effect of Immigrants on U.S. Employment and Productivity.” *Federal Bank of San Francisco Economic Letter*, 2010-26.  
<sup>6</sup> Card, David. 2001. “Immigrant Inflows, Native Outflows, and the Local Labor Market Impacts of Higher Immigration.” *Journal of Labor Economics* 19(1), pp. 22–64.  
 Borjas, George J. 2003. “The Labor Demand Curve IS Downward Sloping: Reexamining the Impact of Immigration on the Labor Market.” *Quarterly Journal of Economics* 118(4), pp. 1335-1374.  
<sup>7</sup> Perri, Giovanni and Chad Sparber. 2009. “Task Specialization, Immigration, and Wages.” *American Economic Journal: Applied Economics* 1(3), pp. 135-169.

be employed in computer and mathematical occupations. New legislation that limits foreign-born workers could pose a threat to the labor supply in these specific industries.

### Second Round Effects of Foreign-Born Workers for the U.S. Economy

In addition to directly adding to the labor supply, foreign-born workers stand to support U.S. economic growth through secondary channels. Since the foreign-born population tends to be younger and more engaged in the labor market, foreign labor provides an important source of tax revenues for programs like Social Security and disability insurance. Birth rates are also higher among immigrants, which helps to mitigate the slowdown in U.S. population growth. Notably, foreign-born women have accounted for all of the net increase in annual births since 1970.<sup>8</sup>

**Foreign-born workers boost productivity.**

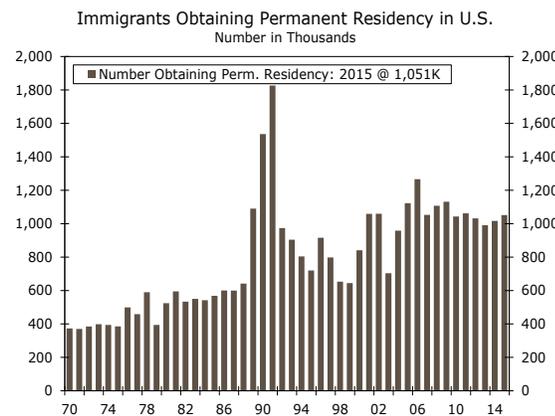
Foreign-born workers are also associated with stronger productivity, a cornerstone of long-term growth. Skilled immigrants have been found to patent at nearly twice the rate of native workers.<sup>9</sup> Low-skilled foreign workers have also been shown to support productivity by encouraging more specialization among native workers.<sup>10</sup> While low-skilled foreign workers may temporarily reduce the need for businesses to invest in labor-saving capital, ultimately, businesses adjust to the new labor mix and invest more efficiently.

### Ebbs & Flows of Foreign Workers in the U.S.: Less Support Ahead?

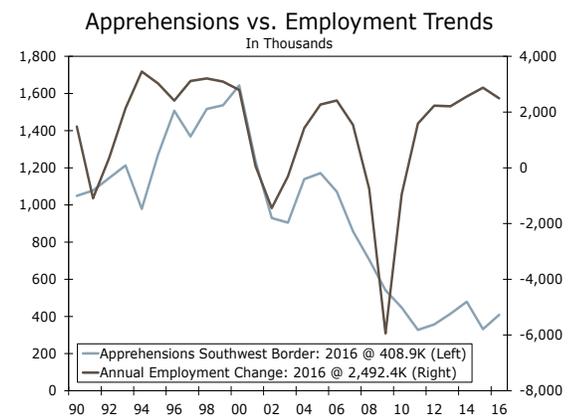
**Net inflows of immigrants have been flat or falling.**

While immigration continues to account for a meaningful portion of U.S. population growth, net inflows from abroad have been flat or falling in recent years. The number of immigrants obtaining permanent residency in the United States has been stuck near one million per year for the past decade (Figure 7), while border apprehensions (a proxy for undocumented flows) are trending near multi-decade lows. These occurrences are likely a factor of both cyclical and secular trends.

**Figure 7**



**Figure 8**



**Source:** U.S. Dept. of Homeland Security, U.S. Dept. of Labor and Wells Fargo Securities

Undocumented immigration has been found to be highly correlated with the business cycle, often more so than legal immigration. While legal immigration also includes family- and humanitarian-based entrants, undocumented flows predominantly consist of foreigners in search of work.<sup>11</sup> Border apprehensions data help support this finding. As shown in Figure 8, the number of apprehensions along the Southwest border has tended to follow patterns in U.S. employment

<sup>8</sup> Between 1970 and 2014, the number of babies born annually to U.S. natives declined by 360,000 while increasing by 630,000 for foreign-born mothers. Livingston, Gretchen. 2016. "Births Outside of Marriage Decline for Immigrant Women: Long-term Growth in Total U.S. Births Driven by the Foreign Born." Pew Research Center, October.

<sup>9</sup> Hunt, Jennifer and Marjolaine Gauthier-Loiselle. 2008. "How Much Does Immigration Boost Innovation?" National Bureau of Economic Research Working Paper Series, Working Paper 14312.

<sup>10</sup> Perri, Giovanni. (2012). "The Effect of Immigration On Productivity: Evidence From U.S. States." *The Review of Economics and Statistics*.

<sup>11</sup> Nicholson, Mike and Pia Orrenius. (2010). "Manning the Gates: Migration Policy in the Great Recession." Federal Reserve Bank of Dallas.

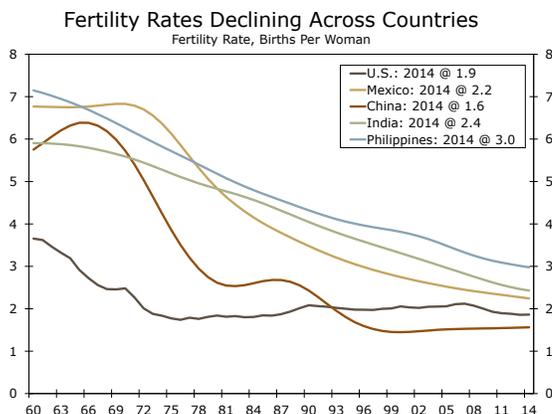
growth. However, a divergence emerged following the Great Recession; as the U.S. labor market has strengthened in recent years, border apprehensions have remained low. The slower recovery of the U.S. economy after the recession, particularly in the construction industry, may have made the United States less attractive to potential migrants.<sup>12</sup>

Greater enforcement has also been a factor contributing to the slowdown in undocumented inflows. Following the 9/11 attacks, efforts to strengthen national security led to a doubling in U.S. border patrol agents. At the same time, the federal government also tightened immigration enforcement in the interior of the country. As a result, the number of undocumented immigrant removals has increased, with deportations rising to an average of 381,000 per year from 2007 to 2015, up from just 188,500 in 2000.<sup>13</sup> The ramp up in enforcement has not only reduced the number of undocumented immigrants residing in the United States via deportation, but has also likely deterred potential migrants from choosing to enter the country. The U.S. population of undocumented immigrants is estimated to have fallen from a peak of 12.2 million in 2007 to 11.1 million in 2014.<sup>14</sup>

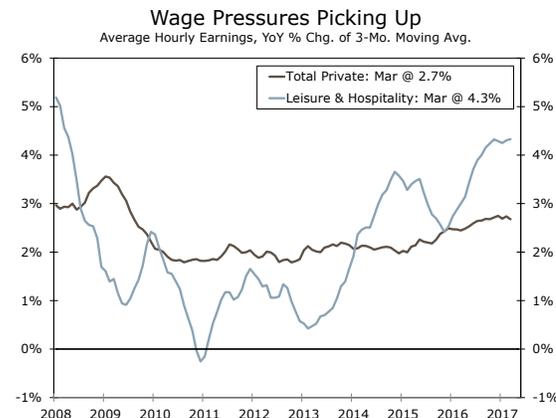
Demographic trends in major source countries of immigration are also becoming less favorable. Mexico and other Latin American countries, which together account for half of all foreign-born U.S. residents, according to the U.S. Census Bureau, have seen a long-term decline in birth rates since the 1980s (Figure 9). China, India and the Philippines, which account for the next largest shares of foreign-born residents, have similarly seen birth rates fall in recent decades. Subsequently, growth in the working-age population, and in turn the potential U.S. immigrant supply, has weakened. Research suggests that changes in the labor supply of source countries have been the primary determinant for trends in U.S. immigration.<sup>15</sup> The weakening demographic trends from overseas, therefore, are likely to only compound the domestic headwinds facing future labor supply growth in the United States.

***Lower birth rates in source countries are a headwind on the supply of foreign-born workers.***

**Figure 9**



**Figure 10**



Source: The Word Bank, U.S. Department of Labor and Wells Fargo Securities

<sup>12</sup> Gonzales-Barrera, Ana. (2015). “More Migrants Leaving Than Coming to the U.S.” Pew Research Center.

<sup>13</sup> Removals are the compulsory and confirmed movement of an inadmissible or deportable alien out of the United States based on an order of removal. 2015 Yearbook of Immigration Statistics. U.S. Department of Homeland Security.

<sup>14</sup> Krogstad, Jens Manuel, Jeffrey S. Passel and D’Vera Cohn. 2016. “5 Facts About Illegal Immigration in the U.S.” Pew Research Center.

<sup>15</sup> Hanson, Gordon, Chen Liu and Craig McIntosh. (2017). “Along the watchtower: The rise and fall of U.S. low-skilled immigration.” Brookings.

*A swift reduction in the number of foreign workers could enhance wage pressures.*

*A more skills-oriented policy could support labor force growth by raising foreign-born participation rates.*

### **Potential Policy Changes: The Short and Medium Term Outlook**

More restrictive immigration policies stand to weigh on U.S. economic growth and make the Trump administration's goal of 3-4 percent GDP growth more elusive. In the near term, policy changes are more likely to affect the supply of undocumented, low-skill labor. Additional funding will be needed for the Trump administration to deport or curtail illegal immigrants. However, if funding did come through, a swift reduction in undocumented workers could add to already growing wage pressures, particularly in lower-skill service occupations with a high share of foreign labor (Figure 10). While the Bureau of Labor Statistics does not distinguish between legal and illegal foreign-born workers, the Pew Research Center estimated that there are 8.0 million unauthorized immigrants working in the U.S. as of 2014, which would be 5 percent of the labor force.<sup>16</sup>

Changes to the legal immigration system have the potential to be less impactful to the labor market in the short run and could even support growth over time. Currently the U.S. system favors family ties over skill-based immigration. In 2014, only 15 percent of permanent resident visas were issued for employment compared to 64 percent granted for family links. With such a small share of permanent visas given specifically for employment, legal immigrants are less likely to participate in the labor market than undocumented immigrants. Therefore, shifting to a more employment-oriented immigration policy, such as in neighboring Canada, could support labor force growth, and in turn, broader economic growth, by raising foreign-born participation.<sup>17</sup>

### **Conclusion: A Tough Road Ahead for the U.S. Labor Supply**

Slower growth in the U.S. labor supply represents a long-term challenge to how quickly the economy will be able to grow in the coming years. The U.S. Census Bureau projects that the natural increase in the U.S. population will slow to only 1.2 million per year through 2030, compared to an average annual increase of 1.6 million since 1991. At the same time, an aging population indicates that a smaller share of the population will be working in the years to come. These headwinds to the U.S. labor supply are already underway, yet foreign-born workers have provided an offset in recent years.

More restrictive immigration policies or greater enforcement of existing policies could exacerbate the downward trend in labor force growth. That said, domestic immigration policies are only one part of the equation. Like the United States, many source countries face their own demographic challenges due to slower growth in the working-age population. Therefore, unless the U.S. system is altered to put more emphasis on skill-based immigration, the U.S. labor supply, and in turn potential economic growth, is likely to slow further.

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<sup>16</sup> Passel, Jeffrey S. and D'Vera Cohn. 2016. "Size of U.S. Unauthorized Immigrant Workforce Stable After the Great Recession." Pew Research Center, November.

<sup>17</sup> Orrenius, Pia M. and Madeline Zavodny. (2013). "Immigrants in the U.S. Labor Market." Federal Reserve Bank of Dallas Research Department, Working Paper 1306, September.

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