



Photo by Ludovic Berton.

## IMMIGRATION

An American flag featuring the faces of immigrants on display at Ellis Island.

# The Economic Benefits of Immigration

by Giovanni Peri

Immigration has always been a formidable engine of economic and demographic growth for the United States. During the last decades of the 19<sup>th</sup> century, immigrants contributed substantially, providing labor for the industrialization and electrification of the country. That wave of immigration was ended by the very restrictive immigration laws passed in 1929. While the “Immigration and Nationality Act” of 1965 abolished national quotas and allowed the flow of immigrants to resume, it has only been during the last 30 years that the mobility of the world’s people has increased significantly. Young, motivated, and often highly educated people are on the move, and many of them would like to come to the United States. With its 41 million immigrants, the United States is by far the largest magnet for international migrants. Moreover, according to Gallup World Polls, there are about 150 million more people

who say that they would migrate to the United States (from every country on the planet) if they had the opportunity.

While immigration flows, if managed efficiently and flexibly, would bring strong opportunities for economic growth, U.S. immigration laws remain outdated, cumbersome, and rather restrictive. These laws have substantially limited immigration for work-related reasons, both among the highly educated (scientists and engineers) and the less educated (construction, agricultural, and personal service workers). The misalignment between restrictive laws and economic incentives has also caused the population of undocumented immigrants to expand rapidly. Attracted by employment, but unable to secure a legal permit, 11 million people work and have set down roots in the United States, despite great uncertainty and little protection.

On June 27, 2013, the U.S. Senate seemed set to change all that, by passing Senate Bill 744, the “Border Security, Economic Opportunity, and Immigration Modernization Act.” The bill is the result of compromise, and is therefore imperfect. Still, it could become the most important piece of legislation on immigration of the last 50 years. It addresses most of the relevant issues plaguing the U.S. immigration system and deals with the problem of undocumented immigrants. As of today, however, due to political polarization, it seems unlikely that the House will pass the bill, despite its potential benefits for the U.S. economy.

## Who Migrates to the U.S. for Economic Reasons?

Abundant research, based on comprehensive data on net migration to rich countries, has shown that two groups have a much higher propensity to migrate internationally. The first group consists of the highly educated, in particular, college-educated individuals. They have emigration rates four to five times higher than workers with no college education, and in poor countries, they are 10 to 12 times more likely to migrate. The second group is made up of the young: individuals between 20 and 40 years of age have the highest propensity to migrate. After 45, few people choose to leave their home countries.

Looking at the United States, a very large group of immigrants (as a percentage of the native population with similar skills) is made up of young, highly educated workers, mainly scientists and engineers. Another large group consists of young workers with little education who are employed in highly manual-intensive occupations. Figure 1 shows that ordering schooling levels from low to high and reporting the percentage of foreign-born workers for each skill group reveals a clear, U-shaped distribution. The percentage of foreign-born workers, as of 2011, was very high among workers with no degree, mainly employed in manual-intensive jobs. It was also very high among highly educated science, technology, engineering, and math workers (STEM). The percentage of foreign-born workers was much smaller for intermediate levels of education. The group of immigrants with very little education included a large part of the undocumented workers. This was due, in part, to the fact that there are very few legal ways for foreign workers with low schooling levels to enter the United States, despite there being significant demand for them. The current composition of U.S. immigrants follows the labor market logic. Adapting immigration laws to reflect this logic, as the proposed reform would do, makes perfect sense and would improve efficiency.

## The Economic Effects of Immigrants

The very simple logic of demand and supply implies that, other thing being fixed, an increase in the labor supply reduces wages as workers compete in an increasingly crowded economy. While correct on its face, this is “partial equilibrium” reasoning. Since partial equilibrium models rely on the assumption that other things are kept fixed, they do not account for the series of adjustments and responses of the economy to immigration. Still, that simple logic is often pushed to its Malthusian implication that more workers in an economy mean lower wages and lower incomes. These partial equilibrium implications are likely to be incorrect, theoretically and empirically, in “general equilibrium.” The workings of four important mechanisms attenuate — and often reverse — the partial effects of an increased supply of foreign workers on the demand for native workers.

## Investments

First, as a consequence of the availability of more workers, firms invest: they expand their productive capacity and build more establishments. The productive capacity (capital) per worker has grown in the U.S. economy at a constant rate during the period from 1960 to 2009. If anything, capital per worker was higher when immigration was at its peak in 2007 than it was in 1990 before the immigration boom began. Investments, that is, were responsive to the predictable inflows of workers. Hence, immigrants did not crowd out existing firms over the long run. Rather, they increased the size and number of firms providing investment opportunities.

## Educational Composition of Immigrants

Second, workers are not all the same. In terms of their labor market skills, there is a large difference between workers with tertiary education and those with a secondary education or less. It makes sense to distinguish between these two groups because they do different jobs. A modified version of the wage-depressing effect of immigrants is that, if the relative supply of less-educated workers among the foreign-born is larger, their inflow would depress the wages of less-educated natives relative to highly educated natives. In the U.S., however, because of the combination of immigrants at the top and the bottom of the schooling distribution (as seen in the chart on the next page), immigrants have had a balanced distribution. The overall proportion of college-educated immigrants has been very similar to that of natives. So, their inflow did not significantly alter the relative supply of those two broad groups. Labor economists consider the split between

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Foreign-Born Share in Each Education Group, U.S. Workforce 2010

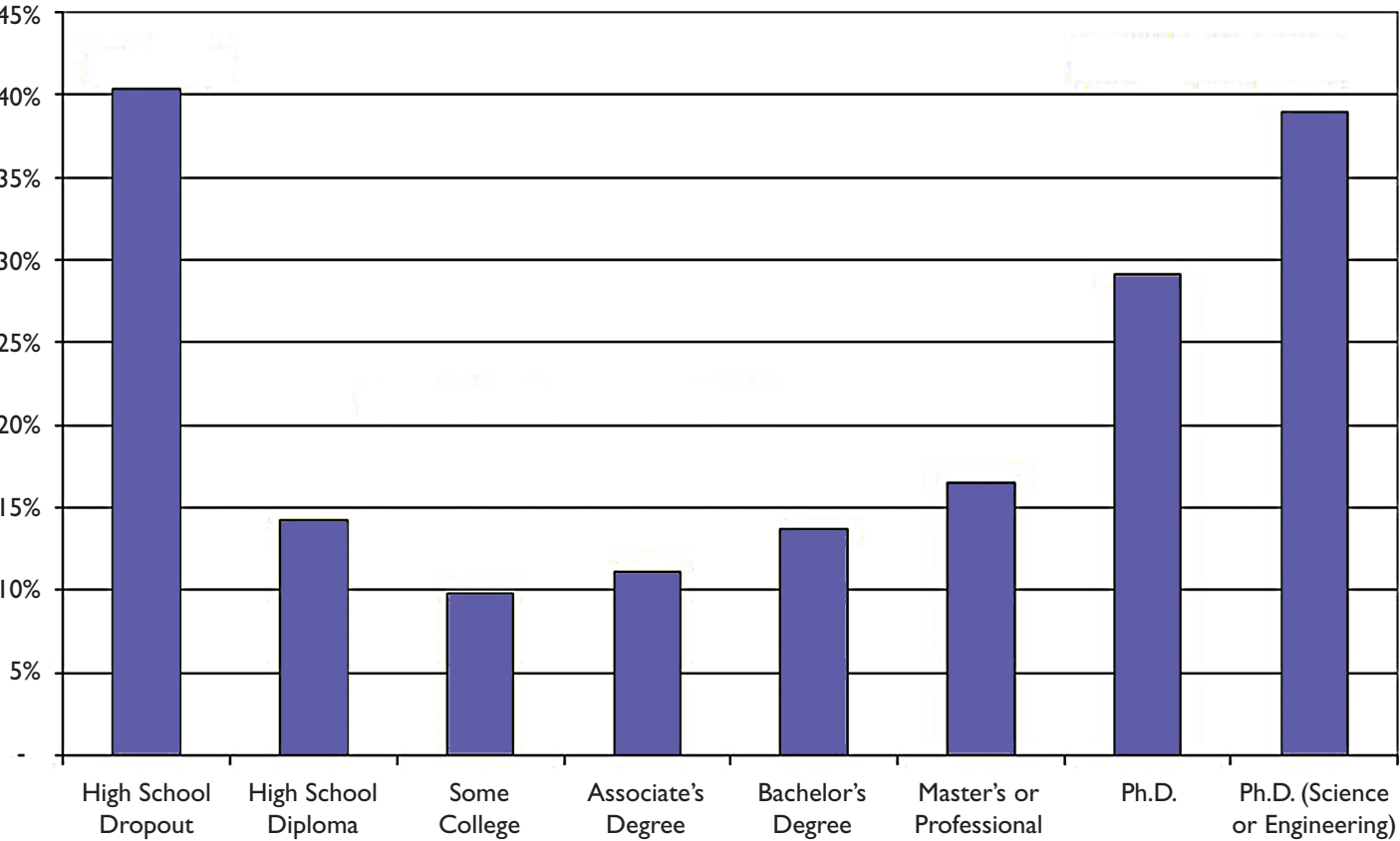


Figure 1: Foreign-born workers tend to cluster in high and low education groups. (Chart courtesy of Giovanni Peri.)

the tertiary and non-tertiary educated as the most relevant factor for understanding the effects of relative supply on relative wages. Since immigration did not alter the relative supply of these two groups, it is unlikely to have changed their relative wages. At the national level, immigration cannot explain the observed increase in the relative wage of college-educated workers versus high-school graduates observed in the 1980s and 1990s, simply because it did not much affect that relative supply.

Specialization and Technology: Job Upgrades

It is even more interesting to consider the differentiation of skills and productive characteristics between natives and immigrants within each of the two education groups. One tendency among immigrant workers with little schooling is to concentrate predominately in manual jobs. They tend to work as farm laborers, construction workers, roofers, drivers, food preparers, housekeepers, and caregivers for children and the elderly. Similarly educated natives, on the other hand, tend to work in jobs that require more intensive communication and interaction skills; they are cooks, construction supervisors, farm coordinators, and clerks.

In a study I conducted with Chad Sparber (“Task Specialization, Immigration and Wages,” American

Economic Journal: Applied Economics, 1:3, July, 2009), we show that, due to the limited knowledge of the language, immigrants specialize in manual jobs. As a consequence, firms and sectors that hire immigrants generate higher demand for jobs requiring coordination, communication, and interaction — jobs that are typically staffed by natives, whose language skills are superior. This dynamic specialization according to skills pushes natives to upgrade their jobs to better paid, communication-intensive occupations and protects their wages from competition from immigrants. By taking the manual jobs that natives progressively leave, immigrants push a reorganization of production along specialization lines that may increase the effectiveness and efficiency of labor. A related line of research by Ethan Lewis at Dartmouth shows that, in markets with many immigrant workers, firms adopt techniques that are particularly efficient in the use of less-educated, manual-intensive workers. Hence, they are able to absorb a large number of less-educated manual workers without a loss in productivity and wages.

Mobility of Immigrants

Finally, immigrant workers, both newcomers and those already working in the United States, are more

willing than natives to move in order to find jobs. Immigration, as a consequence, has served to smooth out local booms and busts; by moving away from declining regions and into booming areas, immigrants help stabilize the economy and reduce the “mismatch” between local demand for labor and its supply. Immigrants’ willingness to move helps slow wage decline in stagnant regions and contributes to economic growth in booming ones. Combined with the complementarity of immigrants to natives, this mobility helps reinforce productivity growth in strong labor markets.

In summary, investment, the specialization of natives, the complementarity between natives and immigrants, and the technological response of firms are the local economy’s margins of response to immigration. They all attenuate and may overturn the depressing effect of increased labor supply. These factors explain why a long line of empirical economic studies (first summarized by Friedberg and Hunt in 1995, and then by Longhi et al. in 2005) has found that immigration has, at most, a very small effect on native wages and employment at both the local and the national level. My recent studies on U.S. employment and wages (in particular “Rethinking the

Effect of Immigration on Wages,” Journal of the European Economic Association, John Wiley & Sons, Ltd., vol. 10(1), written with Gianmarco Ottaviano), found very small — a few fractions of a percentage point — positive effects of immigration on the wages of less-educated natives. Only a few studies (e.g., Borjas 2003, 2006) have found negative wage effects on less-educated workers at the national level. These effects amounted to a roughly 3 percent decline over the period from 1980 to 2000. Even those studies, however, found positive wage effects of 1 to 1.5 percent for workers with an intermediate to high schooling level.

Other Economic Effects of Immigrants

In the United States — and in many European countries — the foreign born have become a large and growing presence in the home services sector. Home services include cleaning, food preparation, and gardening, as well as personal services such as child and elderly care. These jobs are often characterized as “household production” services. The increased presence of immigrants in this sector has made home services more affordable, which in turn has allowed more native-born women — especially highly educated women — to join the labor force or to >>

North Dakota has seen an influx of workers from around the globe due to its recent oil boom.



Photo by Andrew Burton/Getty Images.





Photo by Melanie Stetson Freeman/The Christian Science Monitor/Getty Images.

Immigrants graduate from a program that teaches them both the English language and the skills they need to become certified nursing assistants.

increase their hours worked. A study by Patricia Cortes at Boston University shows that the inflow of less-educated immigrants reduced the cost of household production services by almost 10 percent over the period from 1980 to 2000. Moreover, native women increased their work week by about half an hour because of less-expensive home-care services. Low-skilled immigrants thus allowed the productive potential of highly educated women to be used in the labor market by performing some of their household production tasks.

### Highly Educated Immigrants: Contribution to Innovation

Highly educated immigrants are a huge asset for the U.S. economy, which attracts scientists and engineers from all over the world. One-quarter of the U.S.-based Nobel laureates of the last 50 years were foreign-born, and highly educated immigrants account for about one-third of U.S. innovation. In 2006, immigrants founded 25 percent of new high-tech companies with more than \$1 million in sales, generating income and employment for the whole country. Innovation and technological growth are the engines of economic growth in technologically advanced countries like the United States, where attracting and

training new scientists and engineers is key to continued economic success. In a recent paper I wrote with Chad Sparber and Kevin Shih, we show that the inflow of STEM workers driven by H-1B visas during the period 1990-2010 explains up to 30 percent of the productivity growth in U.S. cities. This growth has increased per capita income in the United States by 8 percent over the last 20 years.

### Immigration Reforms

In light of these findings, I would like to emphasize that the Senate's reform proposal would constitute a strong economic stimulus for the U.S. economy. First, the bill increases the quota for H-1B (highly skilled) temporary visas, from 65,000 to 110,000 a year, and it allows the quota to grow up to 180,000. If current and past experience is any guide, most H-1B visas will go to scientists and engineers working in fast-growing sectors of the economy. Their innovations, entrepreneurship, and discoveries will be a powerful engine of economic productivity and wage growth.

Second, the reform introduces temporary visas for less-educated workers as well. The initial quota for these W visas is 20,000, and it can be increased up to 200,000 after four years, if demand from employers is sufficiently high. W visas are meant to ensure an adequate workforce in

sectors where many jobs don't require a college degree. In recent decades, the high demand for these services and the pressure to keep their cost low have generated incentives to hire undocumented workers. The reform creates a legal channel for employers to fill these jobs at competitive wages after they've been advertised to native workers.

The long-run demographic and educational trends in the United States suggest that there will be a decreasing supply of natives for these occupations because the population is aging and becoming more educated. By hiring immigrants for manual jobs, companies create new jobs for natives as production expands overall and complementary workers are needed.

Finally, the bill envisions a path to permanent residence for 11 million immigrants who are without proper documents. While the path is long and demanding, it sets the right economic incentives for the undocumented to continue working and contributing to the U.S. economy. First, it will allow workers to be more mobile and to find jobs that best match their abilities, likely increasing their productivity and wages in the short and medium run. Most studies identify wage gains of between 5 and 15 percent from acquiring legal status. Second, legal status will

provide immigrants with incentives to invest in human capital and training. Young individuals will be more willing to get an education, which will further increase their productivity and wages. Older individuals will be more willing to train and acquire U.S.-specific skills, such as better language skills. Third, as the undocumented become more productive, their tax-paying ability will also grow. The Congressional Budget Office calculated that the increase in wages associated with legal status would generate a net increase in government revenues.

If Congress can set political bickering aside and pass this reform, certainly the U.S. economy would benefit, its citizens would be better off, and the country's immigration system would finally be ready to meet the needs of the 21<sup>st</sup> century.

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President Obama meets with Eliseo Medina, former executive vice president of the Service Employees International Union, who was fasting for immigration reform, December 2013.



Photo by Nicholas Kamm/AP/IG/Getty Images.