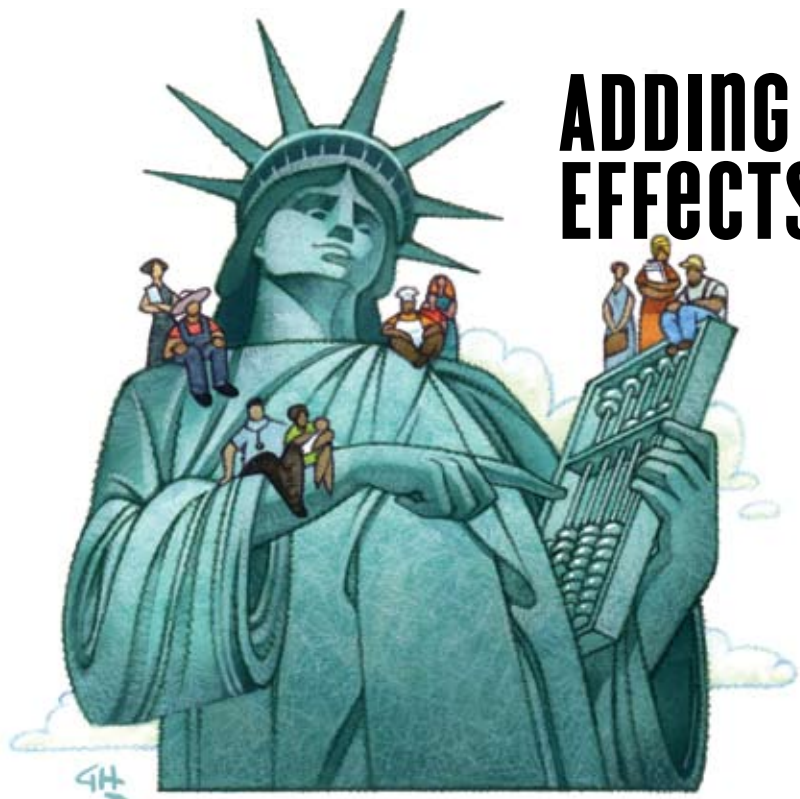


# ADDING UP THE ECONOMIC EFFECTS OF IMMIGRATION

By Rubén Hernández-Murillo



In the past three decades, the percentage of foreign-born people in the United States has risen rapidly. In 1970, foreign-born people represented 5 percent of the population, compared with about 12 percent in 2003.<sup>1</sup> The percentage of foreign-born workers of total U.S. employment is even higher—about 14.8 percent as of last year.<sup>2</sup>

Overall, the flexibility of U.S. labor markets has allowed the economy to absorb the increased flow of immigrants, but the composition of recent immigrants (disproportionately biased toward low-skilled people) and the rapid increase in the number of undocumented immigrants have raised concerns about the impact on the wages and employment rates of U.S.-born workers and about the effect on the net tax burden for the U.S.-born population.

## Costs and Benefits

The benefits from immigration stem mainly from the larger diversity of skills among foreign-born workers relative to the native work force. (For the most part, foreign-born workers have either low or high skills, whereas U.S. natives generally have intermediate skills.<sup>3</sup> The chart illustrates these differences in terms of levels of schooling.) First, the availability of low-skilled immigrants, earning lower wages, has allowed American firms to expand and to generate new jobs, increasing the production of goods and services while keeping prices down. Second, the disproportionate influx of low-skilled foreign-born workers has also increased the

real wages of more-skilled U.S.-born workers (more on this later). Third, foreign-born workers with high levels of schooling have made important scientific and technological contributions to the U.S. economy.

On the other hand, there are many costs to rising immigration, including:

- the potentially adverse effects on the wages and employment rates of low-skilled U.S.-born workers, who face increased competition from low-skilled immigrants; and
- the increase in the consumption of publicly provided goods and services, such as public schools and health services, as well as the increased use of public assistance programs.

Finally, it is worth noting that, although the costs and benefits from immigration are commonly measured from the perspective of the U.S.-born population, immigration clearly benefits immigrants themselves, who enjoy an improved quality of life and higher earnings.

## Labor Market Effects

About a decade ago, academics generally thought that the potentially adverse effect of immigration on the real wages and employment opportunities of U.S. natives was small.<sup>4</sup> Today, a lively debate among economists sustains two opposing views. One view, most notably of economist George Borjas, found large negative effects, particularly for low-skilled U.S.-born workers. Using data from the decennial U.S. censuses, Borjas found that, because of immigration, the real wages of U.S.-born workers

declined by about 3 percent between 1980 and 2000 for the average worker and by almost 9 percent for workers without a high school diploma. A second view, by economist David Card, found only small effects. Card focused on the relative wage effects of immigrants using data from U.S. metropolitan areas, accounting for the internal migration of U.S. natives in response to the location choices of immigrants. He found small negative effects of immigration in the 1980s on the real wages of U.S.-born laborers and low-skilled service workers relative to the real wages of more-skilled U.S.-born workers—a reduction of up to 1 percentage point and by up to 3 percentage points in some high immigration cities.

In a recent paper, economists Gianmarco Ottaviano and Giovanni Peri presented yet another view, which appears to overturn some of the previous findings. Following a strategy similar to Borjas', they assumed that U.S. firms combine workers of different types and occupations with physical capital (e.g., plants and machinery), and that the production technology requires the combination of a balanced mix of labor types and capital. This implies that if, for example, a decline in the wages of blue-collar workers induces an increase in their employment, the production technology would require that the employment of other types of labor, say managers, increase as well, which, in turn, puts upward pressures on their wages. In contrast with Borjas' and other studies, which considered an invariable stock of physical capital, Ottaviano and Peri allow for adjustments in the stock of physical capital in response to the influx of immigrants (e.g., adding new machines or building new plants).

In this environment, an increase in immigration has three effects. First, within a given class of skills, an influx of immigrants puts downward pressure on the wages of U.S.-born workers in that class of skills because they compete for the same type of jobs. Second, an influx of immigrants in a given class of skills increases the productivity of workers in other classes (because the production technology requires that a balanced mix of labor types be main-

tained), putting upward pressure on real wages of these other workers. Finally, as a result of an influx of immigrants, the productivity of physical capital also increases, fostering its accumulation to maintain a constant return to capital over the long run; this mechanism, in turn, increases the productivity of all labor types and puts upward pressure on real wages. Borjas' study finds that the first effect is large and negative and argues that the second effect is negligible. Ottaviano and Peri also find that the first effect is negative, but it is outweighed by the other two large positive effects. The difference lies in the adjustment of physical capital in response to an increase in immigration.

Ottaviano and Peri found that, on average, real wages of U.S.-born workers increased by about 2 percent between 1980 and 2000. They also found a small decline of about 0.4 percent in the real wages of U.S.-born workers without a high school diploma.

The reason for the overall increase is that competition for jobs between immigrants and U.S.-born workers leads to losses for low-skilled and possibly high-skilled U.S. natives, but given the distribution of U.S.-born workers, the gains of those native workers with intermediate levels of schooling, especially college graduates, outweigh the losses of workers with low and high levels of schooling. Furthermore, the authors observe that, even among workers with similar educational attainment levels, foreign-born workers tend to work in very different occupations and industries than do U.S.-born workers, further attenuating competition for the jobs that U.S. workers seek. Also, U.S.-born workers, particularly those with low and high levels of schooling, possess characteristics that cannot be easily substituted by those of immigrant workers; so, their wages do not decline as much in response to the increase in the number of foreign-born workers.

### Fiscal Effects

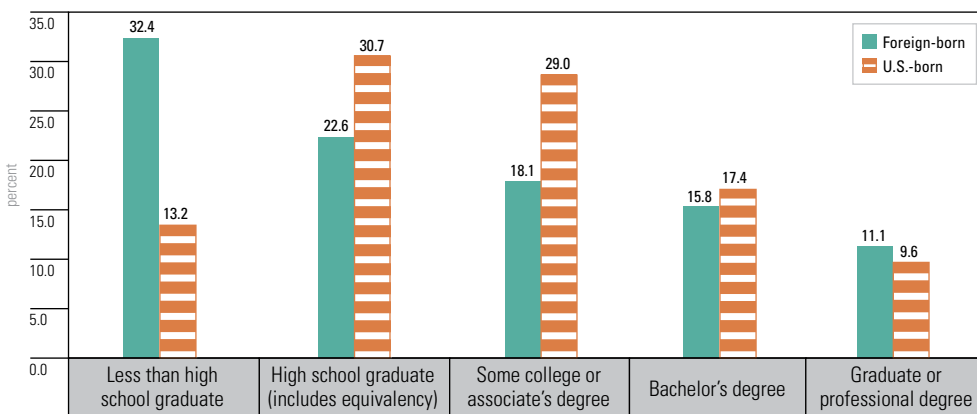
Other important characteristics of recent immigrants are that they tend to be younger than U.S. natives and have higher fertility rates.<sup>5</sup> These two characteristics have positive fiscal consequences as the baby-boom generation of U.S.-born workers retires. Borjas and Card also document that, on the other hand, low-skilled immigrant workers, on arrival, earn significantly lower wages than low-skilled U.S.-born workers and consequently pay lower taxes. Therefore, the net present value of the fiscal contribution of immigrants depends crucially on the economic success of their children and how quickly their skills and earnings catch up to those of U.S. natives. Recent evidence suggests that immigrants are assimilated (in terms of earnings and educational attainment relative to U.S. natives) at a reasonably rapid pace. A controversy among the two authors remains about the success and speed of assimilation of Mexican-born immigrants, who on entry to the United States possess by far the lowest levels of educational attainment relative to other immigrants.

### Discussion

Increased immigration, particularly in the short run, can carry adjustment costs, both in terms of the labor market outcomes of U.S.-born workers as well as the net fiscal contribution of immigrants. Over the long run, whether the benefits of immigration exceed the costs depends on how quickly the children of immigrants can be assimilated into the native population. Further study of Mexican-born immigrants may prove useful to inform the debate over immigration, as their importance in terms of sheer numbers, skills and share of the undocumented immigrant population continues to increase.<sup>6</sup>

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### Schooling Levels of the U.S.-Born and Foreign-Born Population



DATA: 2004 American Community Survey. Population 25 years of age and older.

NOTE: The U.S.-born shares include children born overseas to U.S.-born parents.

### ENDNOTES

- 1 See the 2005 Economic Report of the President.
- 2 This share includes persons 16 and older. Source: U.S. Department of Labor.
- 3 The 2005 Economic Report of the President indicates that the skills characteristics of the foreign-born population are highly correlated with their country of origin. In particular, about 64 percent of male immigrants from Mexico or Central America had less than a high school education. In contrast, only 10 percent of Asian-born men failed to obtain a high school diploma. Total immigrants from Mexico and Central America represented 37 percent of about 35 million immigrants in 2003.
- 4 See Friedberg and Hunt (1995).
- 5 See the 2005 Economic Report of the President.
- 6 The 2005 Economic Report of the President estimates that more than half of about 10 million undocumented immigrants currently in the United States are from Mexico.

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