

America's Stake



A black and white photograph of a baby in a stroller in front of an ornate wrought-iron gate. The baby is wearing a white blanket and is looking towards the camera. The gate is highly decorative with scrollwork and a central crest. The background shows a building with windows.

in Immigration

Why Almost Everybody Wins

By Giovanni Peri

Apart from the Iraq war, no issue seems to polarize American politics as much as immigration policy. And certainly no other issue has revealed as many fissures within both the conservative and liberal camps – a reality that has made it almost impossible to fashion legislative compromises.

The irony here is that while competition from new immigrants does reduce wages in some segments of the labor market, the evidence suggests that a great majority of American workers benefit from the influx. Indeed, foreign workers could greatly contribute to the future prosperity of America if immigration laws evolved toward freer international mobility of labor. While this may surprise those who depend on populist commentators for their analysis of immigration, it follows directly from widely accepted economic principles.

IMMIGRATION AND GLOBALIZATION

International migration has increased substantially in recent decades. In 2005, some 190 million people (2.9 percent of the world's population) lived outside their countries of origin – up

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from 82 million in 1970. But the economic impact has remained modest compared with that of the cross-border movement of goods, services and capital: as of 2004, trade equaled 27 percent of global GDP, while roughly 20 percent of total savings was invested outside its country of origin. This explains why economists generally agree that by preventing labor from working where it is most productive, immigration restrictions sharply reduce the potential output of the world economy.

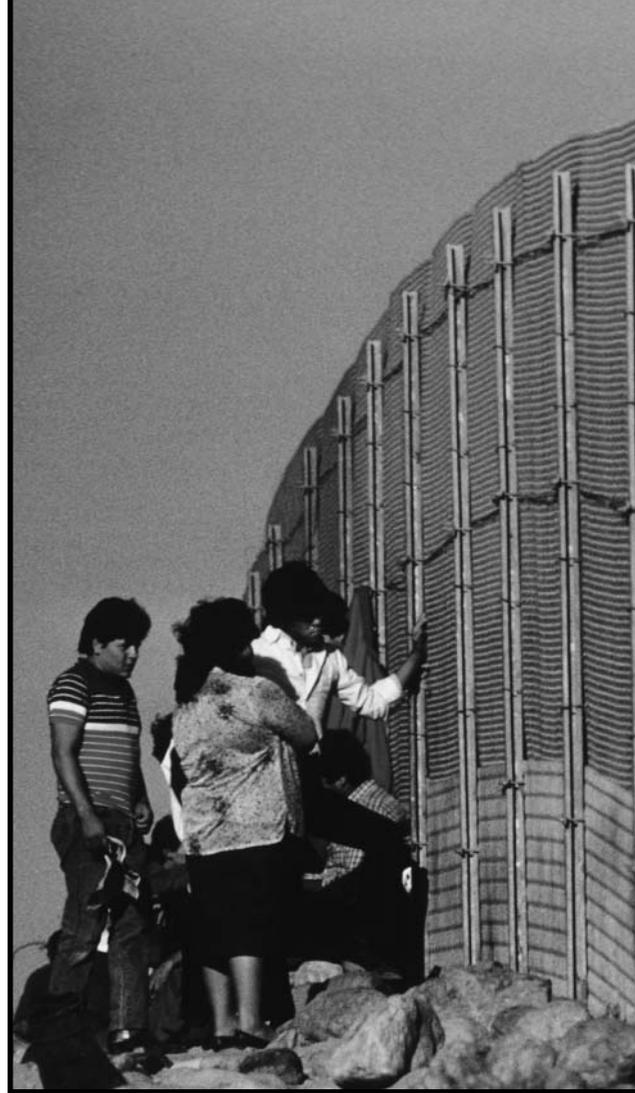
This has not always been the case. In the 1870-1920 period (often called the first era of globalization), most destination economies, including the United States, Canada, Latin America and Australia, allowed virtually unrestricted entry for immigrants from Europe. From 1901 to 1913, an average of one million people emigrated annually to the United States, a figure corresponding to about 2.5 percent of the domestic population each and every year.

Only in the last decade has legal U.S. immigration again reached the one million figure. Since the U.S. population is four times larger than a century ago, however, annual immigration represents at most 0.5 percent of the population, even if one allows for generous numbers of undocumented entrants.

The economic pressure to migrate, determined in large part by differences in wages, is much stronger now than during the first globalization era. In 1870, the wage of the average U.S. worker was only 2.5 times that of a worker in Ireland, one of the largest sources of immigrants.

In 1990, by contrast, the average U.S. wage

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was almost seven times the wage in Mexico. Note, too, that transportation costs are a small fraction of what they were a century ago – and an even smaller fraction of average incomes. Hence, there is no doubt that the current modest migration rates are the product of restrictive immigration laws in place in all developed countries.

Why is it so much more acceptable to stop labor from moving across political borders than to stop goods or capital? Certainly, culture and ideology play a part here: immigration can change everything from the languages spoken in schools, to attitudes toward social welfare programs, to the seasonings included in fast food. But economists believe that much of the explanation lies in the distribution of



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the immigration of less educated workers, whose international mobility is most restricted, who are more likely to be undocumented, and who have triggered the current backlash against immigration.

IMMIGRATION AND COMPLEMENTARITIES

In the long run, average wages are determined by average labor productivity, which, in turn, is largely determined by technology and a host of societal institutions affecting the efficiency, competitiveness and openness of markets and governments. Anyone looking for a negative relationship between increases in the supply of labor and the average wage will not find it anywhere. In the last half century, for example, real wages in the United States have risen even as the labor force has doubled in size.

Note one qualification: since it takes some time to adjust productive capital (firms, structures, machines) to increases in the labor force, a large unexpected increase in employment in a short period may temporarily depress wages. But an influx of workers that is smaller than 0.5 percent of current employment and quite regular over the years hardly fits the bill. Each year for the last three decades, new investments have added 2 to 3 percent to the existing stock of capital in the United States, so the adjustment process has been more than adequate to keep pace with employment and keep the average wage on an upward long-run trajectory.

Then consider the effect of immigration on different types of workers. Assume for simplicity that there are two sorts of workers – less-educated (say with a high school degree or less) and highly educated (with at least some college education) – and that they perform different sorts of tasks. The former do jobs requiring mainly manual skills (cooking,

gains and losses associated with immigration – or, at least, the perception of who wins and who loses.

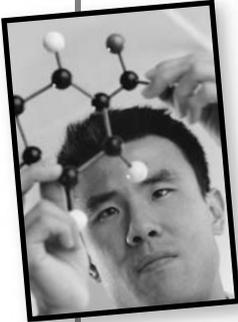
Not surprisingly, those with the most to gain from freer migration are the migrants themselves. But they do not vote in the receiving country (at least for a while). Incumbent workers can gain or lose, depending on their productive roles and skills. If they are business owners, they benefit from the increased return on investments linked to the availability of cheaper labor. If they are workers, they gain or not, depending on whether their jobs complement or compete with those taken by the immigrants.

Our research looks systematically at these differences – and, in particular, at the effect of

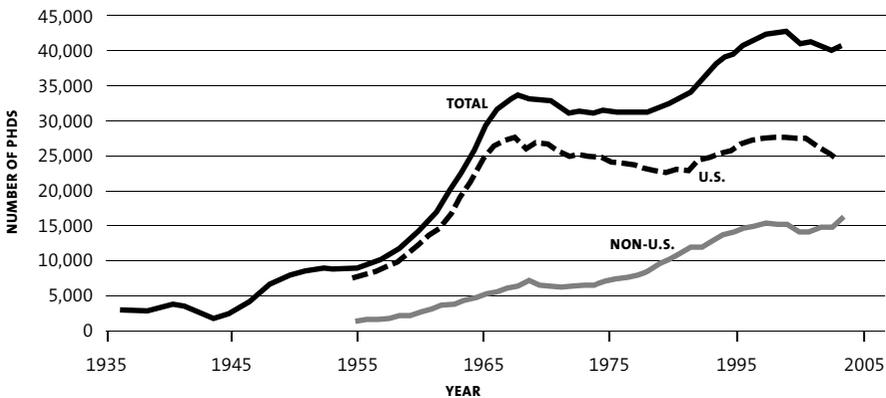
Brain Gain

The very large inflow of scientific talent to the United States, which by all accounts has been a key to sustaining high rates of technological innovation, has largely been powered by the pull of America's best research institutions – not by its immigration laws. Except for a few ad hoc programs (like the H1B visa program), Washington has shown little inclination to favor the entry of elite scientists. Moreover, since Sept. 11, 2001, indifference has been replaced by vague hostility, with the country adopting a better-safe-than-sorry policy to issuing visas.

Yet, as the figure shows, America is becoming increasingly dependent on foreign-born science workers. The number of new PhDs in science and engineering working here between 1973 and 2003 increased only because of the influx of foreigners. The pool of very talented, well-educated natives is not shrinking, but a larger portion of them are choosing careers in nonscientific professions like management and law. And as other countries begin to understand the importance of attracting talented scientists and engineers and to act on that understanding, the hurdles imposed by the United States immigration laws will almost certainly begin to pinch.



**PHD DEGREES AWARDED
BY U.S. UNIVERSITIES AND NATIONAL ORIGIN, 1958–2003**



SOURCE: NSF, *Survey of Earned Doctorates* microdata and, before 1958, National Academy of Sciences (1958). National origin is defined by the country in which an individual went to high school.

cleaning, gardening, construction), while the latter do jobs requiring interactive/analytic skills (managing, coordinating, organizing, computing). The inflow of less-educated workers generates competition for workers

already in that group, but also increases the demand for highly educated workers. In the long run, then, the wage of one group relative to the other is critically affected by relative changes in the number in each group.

So what is the contribution of foreign-born workers to the overall size of each group of workers in the United States? While 23 percent of workers with no degree were foreign-born in 2004, the comparable figure for high-school and college graduates was just 8 to 10 percent. Then, at the very high end of the education spectrum, a whopping 30 percent of those with doctorates in science, engineering and technology were foreign-born.

Leaving aside the PhDs (who represent about 0.5 percent of the labor force), it is clear that immigrants have increased the supply of workers lacking diplomas far more than the supply of high school and college graduates. Accordingly, immigrant labor has depressed the wages of the least-educated workers, but increased the wages of workers with high school diplomas or more.

As of 2004, 89 percent of native workers had a high school degree or more, and only 11 percent lacked any degree. Therefore, roughly 9 in 10 working Americans gain from immigration. Moreover, the number of native workers with no degree has been shrinking fast. In 1960, 50 percent of native workers were in the no-degree group; two decades later, the figure was down to 20 percent, and, as noted above, it is now close to 10 percent.

U.S.-born workers are climbing the educational ladder, acquiring interactive/analytic skills and progressively leaving the manual jobs that would put them in competition with immigrants. If the trend continues as expected, the day is not far off when virtually all manual labor will be performed by foreign-

born labor. This implies large wage gains for native workers, since they will be able to specialize in language-intensive and interactive tasks that are typically far better paid.

While some people shudder at the pros-



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pect of a more stratified society with immigrants at the bottom, keep in mind that the biggest gainers by far in this situation are the immigrants themselves. They can expect to earn six to seven times what they can now make in similar jobs in their countries of origin.

Let me also emphasize that this trend is



Immigrants compete for manual jobs, but in the process create demand for jobs managing and supervising the growing labor force.

not specific to the United States. As citizens of Europe and Japan become both more educated and older (and quickly so), they are becoming increasingly complementary in production to potential immigrants, who are less educated and younger.

Obviously, the gains from complementing one type of labor with another, for both the immigrants and receiving countries, will be realized only to the degree that immigration restrictions are relaxed.

Of course, as John Maynard Keynes pointed out, in the long run we are all dead. In the

meantime, how much do less educated American workers stand to lose from more immigration? And how much can the highly educated expect to gain? For that matter, what about past immigrants to the United States? Are they more subject to competition from the new immigrants and thus likely to lose more than their native counterparts?

My colleagues and I found no evidence that immigrants caused unemployment among native workers with similar education and working experience during the 1960-2004 period. This is consistent with the idea

that an inflow of workers creates opportunities for more investments and jobs, and thus should not raise unemployment rates in a labor market as competitive and flexible as that of the United States.

The fact that immigration didn't displace native workers doesn't imply that it didn't affect their wages, however. And here, we did find some impact – though most of the shock was felt by previous immigrants rather than by the native-born. This implies that native and foreign-born workers are not perfect substitutes in the labor market – that is, they compete only tangentially for the same jobs and occupations.

Specifically, the big influx of immigrants between 1990 and 2004 reduced the real wages of natives lacking a high school degree by less than 1.5 percent, but hammered the wages of earlier immigrants by 10 to 15 percent. Keep in mind that, because of the complementarities between less- and more-educated, the inflow of immigrants between 1990 and 2004 also *increased* the wages of United States-born workers with at least a high school degree by an average of 2 percent. Aggregating the gains of the more educated (representing 89 percent of United States-born workers) and the losses of the less educated (representing 11 percent) the net impact of immigration was to increase average wages of native workers by about 1.8 percent.

We studied the mechanism through which less educated native workers took advantage of new job opportunities opened by immigrants. Using data from the Department of Labor on skill content, we assayed the “manual” task content and the “language-interactive” task content of all (more than 500) occupational categories. The former measures

the use of manual skills in performing such operations as driving, painting, cooking and cultivating. The latter measures the use of managerial and interactive skills in planning, directing, controlling and coordinating people and things.

We found that over the period 1970-2000 in states with large inflows of less-educated immigrants (think California), less-educated natives left manual-intensive jobs to immigrants and took up interactive-intensive job at a much faster pace than in states with small inflows of immigrants. Immigrants have manual skills that are as good as those of natives, but worse interactive skills because they require more knowledge of English and local

PERCENTAGE OF WORKERS FOREIGN-BORN AND MANUAL/INTERACTIVE INTENSITY OF OCCUPATIONS

OCCUPATION	% OF WORKERS, FOREIGN-BORN, 2000	MANUAL INTENSITY	INTERACTIVE INTENSITY
AGRICULTURAL SECTOR			
Agricultural laborer	63%	0.82	0.32
Farm coordinator	4%	0.43	0.99
CONSTRUCTION SECTOR			
Construction helper	66%	0.86	0.02
Construction supervisor	8%	0.43	0.96
FOOD PREPARATION			
Food preparation laborer	33%	0.67	0.41
Supervisor of food preparation	14%	0.39	0.67
TRANSPORTATION SERVICES			
Taxi driver	40%	0.96	0.02
Supervisor/dispatcher of motor vehicles	10%	0.44	0.97

SOURCE: Author, Department of Labor

culture. They thus compete for manual jobs, but in the process create demand for jobs managing and supervising the growing labor force.

Take the case of the construction industry. Workers with college degrees in that industry are likely to be employed as structural engineers, accountants, managers and the like. Workers with less than a high school diploma (but with applied skills like bricklaying and

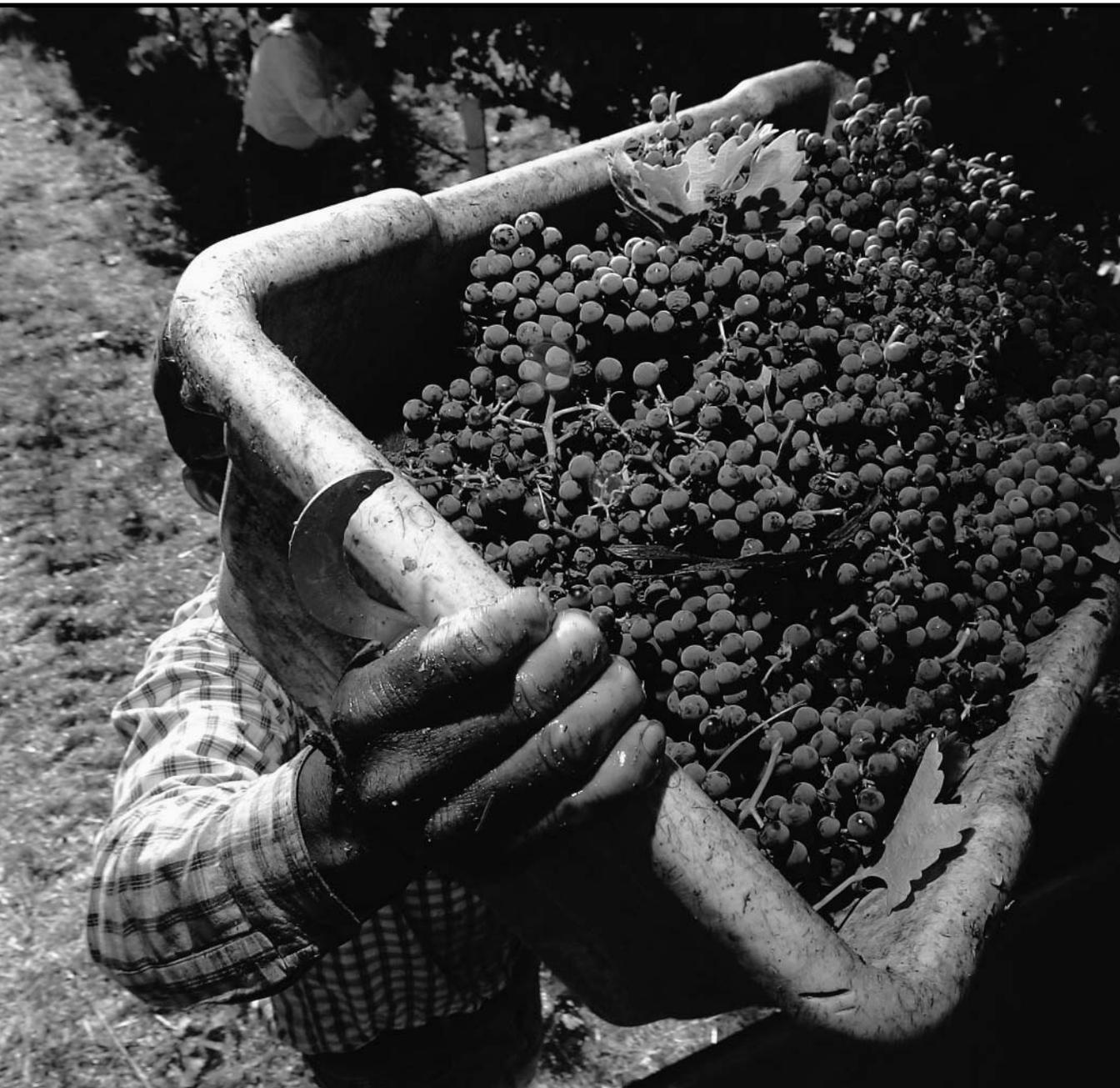
IMMIGRATION

plumbing) might be construction workers or construction supervisors. Immigrants increase the supply of workers with less than a high school degree. But because they are generally young and lack fluency in English, they largely compete for jobs turning on manual skills.

This added competition at the bottom of the scale tends to decrease the wages of manual construction workers, including many

immigrants who have been in the country for some years. At the same time, as more construction companies start up and existing ones expand thanks to the larger availability of immigrant workers, the demand for supervisors and site coordinators increases. And here, less-educated workers (who are, on average, older than the immigrants) have the edge.

The table on page 47 shows examples of four pairs of occupations that are comple-



mentary in the sense that the first of each pair performs mostly manual tasks and the second performs mostly interactive tasks. All four sectors hire lots of immigrants, and none of the occupations requires more than a high school education. The manual and interactive intensity of each occupation is measured as an index between 0 and 1. Occupations that get a 1 in manual intensity (as reported by the Department of Labor) require sophisticated manual tasks (for example, jet pilots, ath-

letes); those with a 1 in interactive intensity require sophisticated organizational-interactive tasks (for example, senior managers, ship captains).

Note that in each sector the occupation with relatively high manual content is disproportionately filled by foreign-born workers (the average in 2000 was 14 percent). By contrast, the occupations with higher interactive content employ smaller-than-average percentages of foreign-born.

The biggest irony here is that most of the opposition to immigration comes from natives with little to lose and much to gain in economic terms.

THE BIG PICTURE

By definition, averages obscure the outliers: older native workers in manual-intensive jobs who haven't managed to take advantage of opportunities to upgrade to supervisory roles have probably suffered significantly from competition with immigrants in recent decades. But our research suggests far larger numbers of workers have gained from immigration. Indeed, the only identifiable group of incumbent workers to sustain a significant loss from ongoing immigration consists of earlier immigrants.

This is an old story: each successive wave of immigrants has had economic reasons to try to close the door behind it.

But it is not an adequate reason for restricting entry this time around; opinion polls show that immigrants who have arrived in recent decades (those who stand to lose from continuing immigration) generally favor more liberal access, presumably because of the non-economic benefits of being reunited with family and friends. The biggest irony here is that most of the opposition to immigration comes from natives with little to lose and much to gain in economic terms – and that the opposition is largely focused on the least educated immigrants who are the ones most likely to create job opportunities for native workers and to raise their wages. **M**