

Excerpt from: *The Effect of Immigrants on U.S. Employment and Productivity* by Giovanni Peri for the Federal Reserve Bank of San Francisco. Available from: <http://www.frbsf.org/economic-research/publications/economic-letter/2010/august/effect-immigrants-us-employment-productivity/>

Immigration in recent decades has significantly increased the presence of foreign-born workers in the United States. The impact of these immigrants on the U.S. economy is hotly debated. Some stories in the popular press suggest that immigrants diminish the job opportunities of workers born in the United States. Others portray immigrants as filling essential jobs that are shunned by other workers. Economists who have analyzed local labor markets have mostly failed to find large effects of immigrants on employment and wages of U.S.-born workers (see Borjas 2006; Card 2001, 2007, 2009; and Card and Lewis 2007).

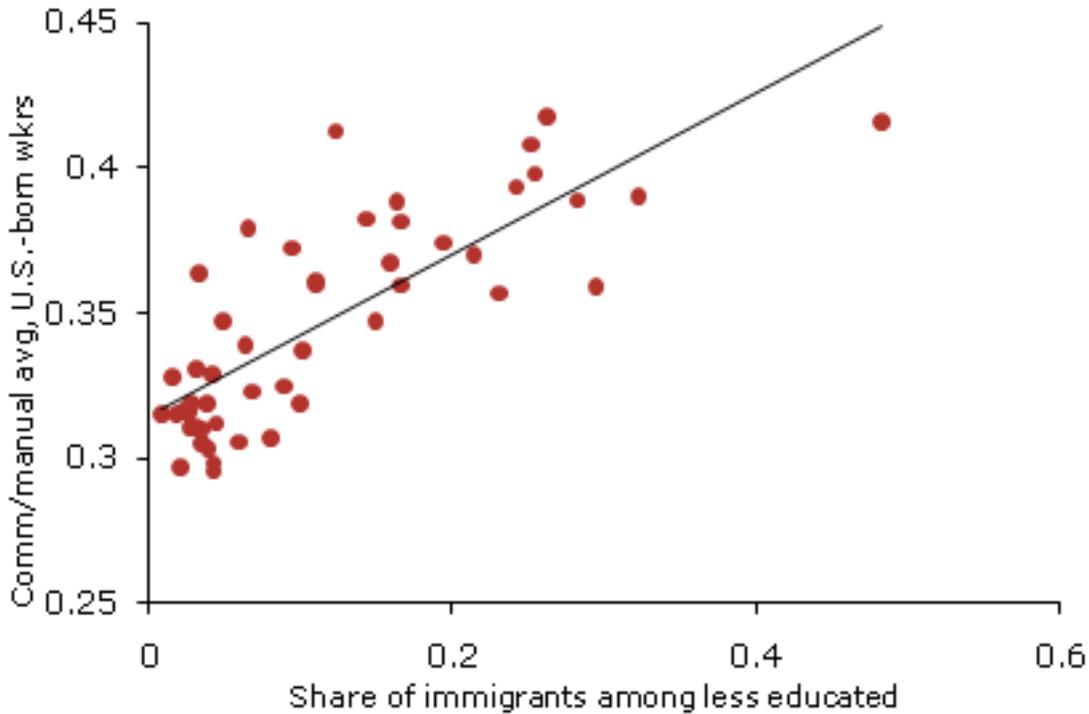
This Economic Letter summarizes recent research by Peri (2009) and Peri and Sparber (2009) examining the impact of immigrants on the broader U.S. economy. These studies systematically analyze how immigrants affect total output, income per worker, and employment in the short and long run. Consistent with previous research, the analysis finds no significant effect of immigration on net job growth for U.S.-born workers in these time horizons. This suggests that the economy absorbs immigrants by expanding job opportunities rather than by displacing workers born in the United States. Second, at the state level, the presence of immigrants is associated with increased output per worker. This effect emerges in the medium to long run as businesses adjust their physical capital, that is, equipment and structures, to take advantage of the labor supplied by new immigrants. However, in the short run, when businesses have not fully adjusted their productive capacity, immigrants reduce the capital intensity of the economy. Finally, immigration is associated with an increase in average hours per worker and a reduction in skills per worker as measured by the share of college-educated workers in a state. These two effects have opposite and roughly equal effect on labor productivity.

How can these patterns be explained?

The analysis begins with the well-documented phenomenon that U.S.-born workers and immigrants tend to take different occupations (see Peri and Sparber 2009). Among less-educated workers, those born in the United States tend to have jobs in manufacturing or mining, while immigrants tend to have jobs in personal services and agriculture. Among more-educated workers, those born in the United States tend to work as managers, teachers, and nurses, while immigrants tend to work as engineers, scientists, and doctors. Second, within industries and specific businesses, immigrants and U.S.-born workers tend to specialize in different job tasks. Because those born in the United States have relatively better English language skills, they tend to specialize in communication tasks. Immigrants tend to specialize in other tasks, such as manual labor. Just as in the standard concept of comparative advantage, this results in specialization and improved production efficiency.

Figure 3

Communication/manual skills among less-educated U.S.-born workers



Note: The data on average communication/manual skills by state are from Peri and Sparber (2009), obtained from the manual and communication intensity of occupations, weighted according to the distributional occupation of U.S.-born workers.

If these patterns are driving the differences across states, then in states where immigration has been heavy, U.S.-born workers with less education should have shifted toward more communication-intensive jobs. Figure 3 shows exactly this. The share of immigrants among the less educated is strongly correlated with the extent of U.S.-born worker specialization in communication tasks. Each point in the graph represents a U.S. state in 2005. In states with a heavy concentration of less-educated immigrants, U.S.-born workers have migrated toward more communication-intensive occupations. Those jobs pay higher wages than manual jobs, so such a mechanism has stimulated the productivity of workers born in the United States and generated new employment opportunities.

To better understand this mechanism, it is useful to consider the following hypothetical illustration. As young immigrants with low schooling levels take manually intensive construction jobs, the construction companies that employ them have opportunities to expand. This increases the demand for construction supervisors, coordinators, designers, and so on. Those are occupations with greater communication intensity and are typically staffed by U.S.-born workers who have moved away from manual construction jobs. This complementary task specialization typically pushes U.S.-born workers toward better-paying jobs, enhances the efficiency of production, and creates jobs. This task specialization, however, may involve adoption of different techniques or managerial procedures and the renovation or replacement of capital equipment. Hence, it takes some years to be fully realized.