

## Virtual immigration

From 1996 to 2008, immigration to the United States rose about 68 percent. Although this statistic represents strong growth, it appears that a much newer phenomenon—*virtual immigration*—has been increasing substantially faster. Virtual immigration is similar to physical immigration in that tasks are done by people from other countries; the difference is that it is the work—not the worker—that moves when virtual immigration occurs. One example is a bookkeeper in India who creates a report of financial data for a company in the United States.

“Labor Market Globalization in the Recession and Beyond” is an article by W. Michael Cox, Richard Alm, and Justyna Dymerska (Federal Reserve Bank of Dallas, *Economic Letter*, December 2009) that discusses virtual immigration before and during the recession that started in December 2007. The article explains that there are no nations that measure virtual immigration explicitly. However, there are numerous data which indicate that virtual immigration has increased rapidly. For example, about two-thirds of the categories of imports and exports tracked by the Department of Commerce are categories that are likely to include strong concentrations of virtual immigrants, and U.S. imports and exports in these categories climbed by 180 percent from 1998 to 2008. According to the article, the growth of data transmission capacity to the point at which large quantities of information can be uploaded and downloaded has made a great difference in the amount of virtual immigration in recent years. Wealthier countries tend to specialize in exporting knowledge-intensive services, whereas less developed

countries generally export more back-office work such as computer programming and claims processing; thus, there are virtual immigrants in both rich and poor nations.

Data indicate that physical immigration is very sensitive to the business cycle. During the most recent recession, for example, workers from other countries have been among the first laid off. Virtual immigration, in contrast, though having slowed recently, appears to have continued to grow in spite of the recession. The article theorizes that the continued growth occurs because, whereas most physical immigrants work in highly cyclical industries involving goods, most virtual immigrants work in services, a sector that traditionally has been less sensitive than goods to the business cycle. The authors state that market forces have had a greater impact than protectionist policies in reducing both kinds of immigration. In addition, they affirm that physical and virtual immigration are likely to increase once the demand for labor rises again.

## Female athletes paid long-term dividends by Title IX

Being a member of a high school sports team has long been touted as a way to stay fit, make friends, and gain self-esteem, but a new study indicates that women reap additional benefits from high school athletics many years after they receive a diploma. Evidence suggests that increased female participation in high school sports leads to increased college attendance and labor force participation rates.

In a recent National Bureau of Economic Research (NBER) study entitled “Beyond the Classroom: Using Title IX to Measure the Return to High School Sports” (NBER Working Paper

No. 15728, February 2010), Betsey Stevenson examines the returns that Title IX has given to the generation of American women that first benefited from the legislation and how Title IX continues to affect younger generations. By controlling for a large number of factors and analyzing boys’ data alongside girls’ data, Stevenson determines that athletic participation in high school has had important causal effects on women’s educational and labor market outcomes.

Enacted by Congress in 1972 as an amendment to the 1964 Civil Rights Act, Title IX banned gender discrimination in any educational program or activity that received Federal financial assistance. Title IX had a particular effect on gender equality in athletic participation. From 1972 to 1978, high schools across the United States experienced a rapid increase in the female athletic participation rate, from 7 percent to over a third; by the latter date, there was roughly the same proportion of female students participating in sports as male students.

The author calculates that changes brought about by Title IX led to a 30-percentage-point rise in female sports participation and that a roughly 0.12-year rise in educational attainment and a 4.5-percentage-point rise in labor force participation can be attributed to the increased opportunities to participate in sports. Stevenson finds that, in the post-Title IX era, women who participate in high school sports receive 0.4 years more education and 8 percent higher wages, even when the study controls as thoroughly as possible for a student’s underlying abilities and resources. Further, since Title IX was enacted, there has been a 20-percent increase in education and a roughly 40-percent rise in employment for 25- to 34-year-old women. □