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Commentary

Title:

"Why U.S. Immigration Policy Should Favor Highly Educated and Skilled Immigrants"

Author(s):

Murat Doral, Senior Lecturer in Economics & Michael Patrono, Senior Lecturer in Economics

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It will come as no surprise to the reader that immigration has become an emotionally charged and divisive political issue. However, the subject of immigration *can* be analyzed dispassionately and logically through the lens of economics. In this essay we make the argument for biasing U.S. immigration policy towards more highly educated and skilled immigrants than we are currently doing. This recommendation only deals with the economic impact of immigration and does not analyze the social or political impact of the immigrants on the United States.

The Impact of Immigration on Private Sector Wages

The basis for our analysis is the supply and demand model that explains how prices are formed in free-market systems. In this model the market develops an equilibrium, or balance, between two competing market forces. This balance is generated spontaneously by the market participants themselves, even though it may not have been their intention.

One of those forces is supply, or the desire of providers to bring a good or service to market for sale. As you already suspect, suppliers want the market price to be high, which would allow them to generate more revenue and profits. Consumers, on the other hand, provide the demand, or the desire to purchase goods and services to satisfy their wants and needs. Consumers want the market price to be low so that they can consume more, given the budget they have. We can think of the market price as the end result of a game of "tug-of-war" between these two sides, where the equilibrium market price comes to rest when the pressure from both sides has reached equality or balance.

This model not only explains the current market price, but also explains why it moves either up or down. Consider the oil price from one year ago, when regular gas sold for $2.50 per gallon. A combination of increased supply in the oil fields and a reduction in demand as people are driving less due to COVID 19, has led to a surplus of oil in the market. The surplus of oil gives the consumer more power in our game of "tug-of-war" since each oil company has to compete for the reduced business. As the firms compete, they drove the price down below $2.00 per gallon. Of course, if the pandemic abates and people start driving to work again, we will see the opposite happen due to the fact that there will no longer be a surplus of oil, but rather, a shortage. The shortage gives business people the upper hand, and prices will rise. This contest between supply and demand is played out in every market in the free-enterprise system. Prices are constantly either rising or falling depending on whether there is excess demand or supply. Those changing prices bring the market back into equilibrium, or in other words, bring the supply into balance with the demand.

Economists believe that labor markets behave in the same way, and for the same reason, as goods and services markets. If there is a surplus of workers added to a particular market we would expect the wage, or price of labor, to fall as "buyers" (employers) gain more leverage. If, on the other hand, there is a shortage of workers we would expect the wage to rise since the suppliers (the workers themselves) would now have augmented bargaining power.

This supply and demand model is what supports the popular understanding that increased immigration lowers wages. But, this is not the end of the story. In order to get a fuller picture we need to add other tools of economic analysis to our mental toolkit. Next, we analyze how workers are related to each other in the economic system.

Substitutes and Complements

Workers can be either substitutes for one another, or complements to each other. A substitute is any good that replaces another good, while a complement is a good that augments or

benefits another good. When applied to the labor market, workers doing the same work are substitutes to each other. For example, if contractors are hiring native born carpenters, and new immigrant carpenters come into the country, the contractors will be able to hire carpenters from both groups at a lower wage. This happens because the contractor substitutes the immigrant carpenter for a native born carpenter in order to save on the cost of construction. The native born carpenters will have to accept a lower wage in order to keep their jobs. Wages for all carpenters will fall until the wage reaches a new equilibrium where carpenters and contractors are back in balance.

Construction engineers, however, are a complement to the immigrant carpenter. If the new immigrants drive down the wages of all carpenters they lower the cost of construction. This encourages people to buy more and bigger houses, stores, and buildings. With all of the new construction going on, college educated construction engineers are in high demand and get higher wages. Using our supply and demand analysis we can see that a flood of immigrant construction workers into the U.S. market will have two separate and opposite effects: a lowering of substitute workers' wages and a raising of complementary workers' wages.

This differential impact on wages will be true for any labor market that immigrants enter in large numbers. The only thing that will differ is which type of worker will be the substitute and which will be the complement to the immigrant. For instance, if immigrants are highly trained technology workers, then domestic computer programmers and others will face stiff competition for jobs, which will depress their wages. But, other workers are complements to the immigrant programmers. Now that tech firms have lots of low cost programmers, they can expand, for example, their consulting operations. In order to do that they need to hire marketing people, accountants, and office staff. These workers will find that they are now in higher demand and will get higher pay. Just like the construction workers, the immigrant programmers will have a dual impact on wages, lowering some but raising others.

As a generalization, large-scale low-skill immigration will tend to have a negative impact on low-skill, and therefore low-wage, domestic workers. Those same immigrants will have a positive impact on higher skilled domestic workers who tend to be complements to the low-skilled immigrants. Conversely, large-scale immigration of high-skill workers will tend to depress the wages of high-skill domestic workers while simultaneously raising the demand for, and wages of, lower skilled workers who are now the complements.

Not only do the immigrants impact wages, but they also change the level of inequality of income in the host nation. If large numbers of low-skilled, and therefore low-wage, workers enter a country we would expect the overall level of wage and wealth inequality to rise. This is due to the mathematical fact that adding more low-wage workers to the bottom of a distribution, and simultaneously raising the wages of higher skilled complementary workers at the top of the distribution, necessarily makes the distribution wider, or more unequal.

On the other hand, immigration of highly skilled, and therefore highly paid, workers will have the opposite effect, and will reduce income and wealth inequality. This is due to those at the top of the income distribution finding their income lowered from the competition, and those in the bottom part of the income distribution finding their income raised by the complementary demand. This dual action will compress the wage distribution, thereby reducing income and wealth inequality.

The Impact of Immigration on the Fiscal Burden

In addition to the impact that immigration has on private sector wages and on income inequality, we also need to consider the fiscal burden of immigration. The fiscal burden is the net cost of a population to the government, and it is calculated by subtracting the total cost of government provided benefits from the total amount of taxes paid to the government. This fiscal burden can be zero if taxes paid equals benefits received, positive if taxes paid are higher than benefits received, or negative if taxes paid are lower than benefits received.

The fiscal burden of both immigrants and the native born differs dramatically based on educational attainment. Generally, the higher the educational attainment, the higher the taxes paid to and the lower the benefits received from the government. For U.S. households (both native and immigrant), on average, college graduates paid $54,089 in taxes and received $24,839 in benefits in 2010 for a positive fiscal burden of $29,250. This means that college grads paid more into the government than they received in benefits on average. On the other hand, populations with less than a high-school degree paid an average of $11,469 in taxes but received $46,582 in benefits, generating a negative fiscal burden of $35,113.[1] In addition, all other household categories headed by someone with less than college degree had a negative fiscal burden (paid less in taxes than benefits consumed).

The fiscal burden becomes relevant when we compare the differential impact of high-skilled immigrants with low-skilled immigrants. Immigrants coming to the U.S. differ dramatically in their average educational attainment, and therefore their probability of being a fiscal burden to the taxpayer. For instance, of the immigrants coming from India, 86.2% have a bachelor's degree or higher, while only 2.6% have less than a 9th grade education. Indian immigrants tend to be highly skilled and are not a fiscal burden as a group. At the other end of the scale, immigrants from Central America tend to be much lower skilled as measured by educational attainment. From countries in this region only 9.8% of immigrants had a bachelor's degree or higher, and 37.5% had less than a 9th grade education.[2] The probability of being a fiscal burden to the taxpayers is much higher for this group of immigrants.

Conclusion

The analysis presented in this article deals strictly with the economic impact of immigration, and does not enter into the debate about the social and political impact of mass immigrants on society. This analysis does, however, makes clear that we need to have a more nuanced debate in our country about immigration. The economic impact of low-skill versus high-skill immigrants is dramatically different. High-skill immigration increases economic growth, lowers income inequality, raises the income of native born low-income workers, and reduces the level of fiscal burden of government on the population. Mass low-skilled immigration generally does the opposite. Based on the economic impact alone, and the fact that the US economy is a high income and high value-added advanced economy, a more targeted approach to immigration is warranted. Therefore, we recommend that immigration into the U.S. should be biased towards those with higher educational attainment and skills.

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[1] "The Fiscal Cost of Unlawful Immigrants and Amnesty to the U.S. Taxpayer," by Richwine and Rector, Heritage Foundation, May 6, 2013 http://report.heritage.org/sr133.

[2] Authors' calculations for El Salvador, Guatemala, and Honduras from data found in: "Frequently Requested Statistics on Immigrants and Immigration in the United States," by Batlova, Blizzard, and Bolter, February 14, 2020. https://www.migrationpolicy.org/article/frequently-requested-statistics-immigrants-and-immigration-united-states#Now.