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The labor market effects of reducing the number of illegal immigrants ☆

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ABSTRACT

A controversial issue in the US is how to reduce the number of illegal immigrants and what effect this would have on the US economy. To answer this question we set up a two-country model with search in labor markets and featuring legal and illegal immigrants among the low skilled. We calibrate it to the US and Mexican economies during the 2000–2010 period. As immigrants – especially illegal ones – have a worse outside option than natives, their wages are lower. Hence, their presence reduces the labor cost of employers who, as a consequence, create more jobs per unemployed when there are more immigrants. Because of such effects our model shows increasing deportation rates and tightening border control weakens low-skilled labor markets, increasing unemployment of native low-skilled workers. Legalization, instead, decreases the unemployment rate of low-skilled natives and increases income per native.

1. Introduction

Most of the existing papers on the labor market effects of immigration consider the number and skill composition of immigrants as an exogenous variable and analyze the consequences of changing those on native labor market outcomes. The number and type of immigrants entering a country, however, are not policy variables of choice, but the outcomes of economic, social and policy forces in the sending and receiving countries. In the economic literature on the effect of immigration, very little attention has been paid to the specific policies used and to the difference between the labor market effects of legal and illegal immigrants.[1]

A large part of the policy debate in the US, however, has been about different ways to reduce the number of illegal immigrants. The presence of a large number of illegal immigrants is an anomaly, but there is disagreement on how to address it. Economists are often asked whether reducing illegal immigrants would be costly or beneficial for the US economy. In particular, what policy, among border enforcement, deportation, self-deportation or legalization, would be most harmful to US firms and workers? The existing economic literature uses naive frameworks to answer this question. Based on an oversimplified canonical model of labor demand and supply, economists rarely focus explicitly on illegal immigrants, and

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[1] Throughout the paper we will use the adjectives “legal” and “illegal” immigrants to characterize immigrants who are endowed or not of proper documentation to reside and work in the US. Some scholars refer to those groups as “regular” and “irregular” or as “documented” and “undocumented” immigrants.

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they overlook the different implications across policies. The goal of this paper is to fill this gap by using a more insightful model to analyze the effects of different policies aimed at reducing the number of illegal immigrants. Do fewer illegal immigrants free jobs for Americans or do they reduce firm's profit and job creation? Will legalization increase migration pressures? Will deportation and border control decrease legal immigration?

To address these important questions, we propose a new model representing two connected labor markets parameterized to match the US and Mexico, and two groups of workers, high-skilled and low-skilled, that are complementary in production. Firms create jobs that are skill-specific and search frictions exist in the market. Legal and illegal migration opportunities from Mexico to the US arise and people take them if they increase their expected labor income net of costs. To focus on the issue of illegal immigrants, we consider migration of low-skilled workers only from Mexico, while US workers can be low-skilled (competing with immigrants) or high-skilled (complementing them in production). This model incorporates aspects of labor markets and migration that would not be captured by a classical demand-supply framework. These additional aspects turn out to be crucial. First, we characterize legal and illegal immigrants and native workers in the receiving country (US) as potentially different in their outside options and in their probability of breaking up a job-match. These differences affect the wage each type of worker can bargain with firms, given the productivity of the worker–firm match. In particular, illegal immigrants usually have the worse outside option, followed by legal immigrants and then natives. Hence, the first group will accept lower wages relative to legal immigrants and natives, implying US firms can cut labor costs by hiring them. Second, as a consequence of these labor cost savings, firms are willing to post more job openings and, if those are specific to skills, but not to immigrant workers, a positive job-creation effect will benefit native employment opportunities too.

Given the large productivity difference between Mexico and the US, illegal immigration opportunities – albeit associated with worse conditions than legal ones – can be attractive to unskilled Mexican workers. At the same time, US firms benefit from illegal immigrants by paying lower labor cost. These features capture the economic incentives leading to illegal immigration to the US. However, there is another crucial implication of this framework: rich country skilled and unskilled workers can benefit from illegal immigrants. More illegal workers push firms to create more jobs per unemployed worker in unskilled labor markets because their presence reduces the average firm's cost. As long as labor markets are not fully segmented between immigrants and natives, natives will increase their employment too. Hence, policies reducing the number of illegal immigrants may cost native workers employment and income. With our model we can quantify these costs and analyze how policies differ from each other.

We analyze the following four policies: (i) increasing border enforcement to reduce illegal immigration opportunities, (ii) increasing the costs that illegal immigrants face when looking for a job (no access to benefits), (iii) increasing the frequency of deportations, and (iv) increasing the probability of legalization. In analyzing these policies, we take a status-quo driven approach. Rather than asking whether there is a theoretically optimal number of illegal immigrants from the perspective of native income per person, we consider the status quo and determine the cost – in terms of native income per person, wages, and employment – of reducing the number of illegal immigrants by a certain percentage.

The policies described can be separated into two categories. Three of them (increased deportation, increased border control, and increased cost of looking for a job) not only decrease the number of illegal immigrants, but they also reduce the total number of immigrants (legal plus illegal). We will call these three "restrictive policies". In contrast, the fourth policy, legalization, decreases the number of illegal immigrants, but increases the total number of immigrants. By legalizing illegal immigrants this policy leaves the total immigrant stock unchanged and also provides stronger incentives for potential immigrants, as more of them can become legal in the US.

The three restrictive policies, by reducing unskilled immigrants (legal and illegal) have a depressing effect on the wages and employment of skilled workers (who are complementary to the unskilled) and on firms' profits (benefiting from the cost-reducing effect of illegal immigrants). In the canonical model, however, they would increase employment and wages of native unskilled by reducing competition from unskilled immigrants. To the contrary, because of the unskilled job creation effect of immigrants described above, the restrictive policies worsen labor market conditions for unskilled natives when analyzed within our model. Legalization, instead, as it increases the total number of unskilled immigrants enhancing their job-creation effect, produces a positive effect on the wages and employment of skilled natives and on unskilled native employment. While the wage effect of legalization on unskilled natives is negative, the overall effect on income per native in the receiving country is positive, contrary to the restrictive policies that reduce income per native in the receiving economy.

Quantitatively, our simulations show the following effects: increasing the deportation rate of illegal immigrants, or reducing illegal immigration opportunities at the border, to achieve a 50% reduction in the number of illegal immigrants (a very aggressive program) would produce an *increase* in the unemployment rate of unskilled natives by about 1.13% of its initial value. The unemployment rate of native skilled workers also *increases* by 0.57%. The first effect is due to a decrease in unskilled job creation by firms and the second to the negative productivity effect on skilled workers due to complementarity. A similar result can be obtained by increasing the cost of unemployment for illegal immigrants, which would increase native unemployment by 0.95%. This is because this alternate policy would also reduce the wage of illegal immigrants, partly offsetting the negative incentives to create unskilled jobs. The same reduction in illegal immigrants achieved with a legalization program would produce very different effects. The unemployment rate of unskilled natives would *decrease* by about 1.31% of its initial value and that of skilled natives would *decrease* by 1.20% of its initial value. The increase in legal immigrants generated by the legalization program turns the negative labor market effect into a positive one. At the same time, legalization is the only policy that increases income per native in the scenario presented above (+0.45%), while