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NEW FRONTIERS OF IMMIGRATION RESEARCH: CITIES AND FIRMS*

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ABSTRACT. The increase in international migration to rich countries during the last two decades has spurred research and policy questions. The economic determinants of national and international migrations and the impact of immigrants on labor markets have been investigated by economists, geographers, and regional scientists for a long time. Recently, however, the availability of new and detailed individual data on migrants across regions and localities in several countries has made it possible to analyze the impact of immigration on a richer set of socio-economic outcomes. Two avenues of research have emerged as particularly interesting and are the focus of this special issue. First, international migrants are particularly concentrated in urban areas but their impact on some outcomes that are particularly relevant in cities (such as crime and housing markets) are not well understood yet. Second, immigrants not only increase labor supply but also affect firms' productivity, survival and growth through their impact on localized externalities. These two themes link all the contributions of this special issue and show new directions for future research on the impact of immigration.

1. INTRODUCTION

The spatial mobility of people and its implications for the fortunes of sending and receiving locations is a core issue in economic geography, regional science and urban economics alike. Due to the recent surge in international labor flows, it has also become a central issue in international economics. The two key questions are: What makes people move? And what are the consequences of their mobility on the other people who instead stay put?

The "classical" tools used to address these questions are simple models of labor demand and supply in which spatial variations in productivity give people an incentive to relocate in search of higher real wages (see, e.g., Card, 2001, 2007; Borjas, 2003; Card and Shleifer, 2009). Migration entails, in turn, a shift in local labor supply that affects the real wages of those who stay put. As other productive factors are typically taken as given, diminishing returns to labor imply that migrants flow from labor-abundant locations to labor-scarce ones, benefiting workers in the former and damaging them in the latter. When the focus is on immigration, these effects are investigated under the assumption that immigrant and native workers of same skill and experience are homogeneous along any dimension relevant for labor market outcomes.

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While useful for drawing some simple implications and predictions, by design the "classical" approach misses some very important implications of migration that stem from two key issues. First, immigration may affect not only labor productivity but, more generally, total factor productivity at the firm and location levels. Second, immigrants and natives may be heterogeneous in their talents, preferences and opportunities, especially in the case of international migration. The "new" approach to the study of migration flows, also adopted by the papers in this special issue of the *JRS*, acknowledges the potential relevance of those two issues. On the one hand, immigrants affect total factor productivity as this is endogenously determined by agglomeration economies and diseconomies in denser locations. On the other hand, movers are individuals and workers with systematic differences from those who do not move. Especially in the case of international immigrants, their language skills, their cultural traits and their preferences may be very different from natives'. The reason is that these immigrants are a selection from the country of origin and not a random sample. Even their legal status (especially if undocumented) may entail a further difference relative to natives. Their incentives may also be different from those of natives as their outside options and social norms are different. Their diversity brings opportunity for firms, who can diversify their skills, tasks and products, cut their costs and, in some cases, expand. It also brings opportunities for cities, where more differentiated goods can be provided. However, it has costs too, as native may dislike living next to immigrants due to different values, aspirations and social values.

Both aspects of the "new" approach (agglomeration dis/economies and native-immigrant heterogeneity) are far reaching and have contributed to move the literature on the economic implications of immigration closer to the new literature on economic geography focused on agglomeration and cities as well as to the new literature on international trade focused on firm and worker heterogeneity. This development comfortably sits in the tradition of the *JRS* of being at the forefront of research on topics at the intersection of geography, trade and local labor markets. In recent issues the *JRS* has devoted significant attention to the importance of migration in generating local agglomerations of skills (Behrens and Sato, 2011; Abel, Dey, and Gabe, 2012; Brown and Scott, 2012). Several studies have focused on European countries that have recently experienced a surge in international migrants (Etzo, 2012; Rodriguez-Pose and Ketterer, 2012). The *JRS* has also continued to publish interesting contributions to the understanding the local labor market determinants (Zenou, 2011) and effects (Gebremariam, Gebremedhin, and Schaeffer, 2011) of international and internal migration. It is, therefore, an ideal place to host the contributions in this special issue as they bring new life to old questions on how immigrants affect housing prices, crime, and firm performance with special attention for their skills and heterogeneous characteristics. In the rest of the introduction we will preview the specific themes covered by the eight contributions of this issue.

2. IMMIGRATION AND THE CITY

A natural place to begin analyzing the impact of immigrant heterogeneity on natives, as well as the potential agglomeration benefits and costs brought by immigrants, is the literature on immigrants and skills in cities. Ottaviano and Peri (2006), building on Rauch (1993), use a simple model à la Roback (1982) to identify the local impact of immigrants both on productivity and housing costs in U.S. cities. The idea is that, if immigrants contribute complementary skills to natives', they will increase a city's total factor productivity with a positive impact on the average native wages. On the other hand, they will also increase crowding and intensify competition, which may both negatively affect productivity and wages, and will affect local amenities with ambiguous sign.

While most of the literature on immigration and skills in cities has focused on their wage impact in order to capture local externalities (Card, 2001; Moretti, 2004a, 2004b), the contributions in this issue look more carefully at other local price and amenity effects of immigrants. Among them, housing prices and housing markets are very important to consider. First of all, the net effect of immigrants on housing prices, if natives are mobile in the long run, will capture the net value of the amenities that they bring. If natives value the larger diversity of goods and services brought by immigrants, or if immigrants improve some of the city characteristics (e.g. law and order) then in the long run the price of houses will incorporate these amenities in a positive price effect. To the contrary, if natives dislike living near immigrants, as they are different in their preferences and culture, this will be captured by a decline in the house prices in cities with large immigration.

The paper by Bakens et al. (2013) look at this issue for the Netherlands using a similar frame of analysis as the one used by Ottaviano and Peri (2006). In so doing, it exploits a unique panel data of homeowners in Dutch cities during the period 1999–2008. A key feature of the paper is that the authors distinguish between the effects of spatial sorting based on individual heterogeneity, interactions-based productivity effects and consumption amenities, also controlling for interactions between the labor and housing market. In line with the previous literature, they find a positive effect of cultural diversity on *average* housing prices. However, when they control for spatial sorting, the effect of cultural diversity on housing prices turns negative. They explain this negative impact in terms of a negative causal effect of immigrants' presence on neighborhood quality that more than offsets a positive effect of immigrant-induced diversity in consumption goods. Differently, the effect of cultural diversity on wages tends to be positive but is not robust. Overall, the paper exemplifies the challenges and opportunities this line of research may face.

More directly focused on the impact of immigrants on housing price and supply is Gonzales and Ortega (2013). The paper considers the exceptionally rapid increase of immigrants in Spain during the period 2000–2010 and analyzes its impact on the price and stock of houses in Spain. The topic is very interesting as Spain experienced a substantial rise in real estate prices and a housing boom during the 2000s and the authors intend to quantify what percentage of it was due to new immigrants. In particular, Gonzales and Ortega analyze the inflow of immigrants across Spanish provinces as a substantial and uneven increase in demand for housing. Immigrants were younger and their population was growing much faster than that of natives. Moreover, their population was concentrated in some metropolitan areas. The authors find that about one third of the increase in house prices and in the house stock between 2000 and 2010 can be explained by immigration. For each increase of immigrants by 1 percent of the population the price of houses increased by 1–1.5 percent and the number of new dwelling by 0.8 percent. This paper is the first to quantify clearly and precisely the effect of immigration on the housing prices in a European country (Saiz, 2007, estimated similar effects for the U.S.). As the stock of houses in a country is mainly owned by native, this is a significant contribution of immigrants to native wealth.

Also the papers by Carruthers, Duncan, and Waldorf (2013) and Cahill and Franklin (2013) analyze the interaction between immigrants and the housing market but from rather different angles. Rather than asking whether and how immigration affects the value of natives' real estate, Cahill and Franklin look at how nativity affects home ownership and, vice versa, Carruthers et al. look at how homeownership affects the integration of foreign born through naturalization.

In housing research a central theme is the extent to which the gap in homeownership between different ethnic groups can be attributed to discrimination rather than other changeable factors such as group age structure, geographical location, or educational attainment. In this respect, nativity is traditionally considered to be an important explanatory variable. Large proportions of foreign-born groups have simply not lived in the U.S. long enough to make the transition to homeownership. Accordingly, whether the focus of the analyses is on race and ethnicity or immigrant status, the current common wisdom is that, given enough time, gaps would eventually disappear and, once closed, they would not open again. This rosy picture is being challenged by the current foreclosure crisis: just as homeownership varies across groups, also foreclosure risk seems to be unevenly distributed. This has far-reaching policy implications as it implies that homeownership is a weaker absorbing state for some groups than for others. Cahill and Franklin contribute to the nascent body of research on this topic through a detailed investigation of the case of Miami-Dade County that exploit data on housing tenure and the characteristics of the homeowner from the decennial census (until 2000) or the American Community Survey (2005 onwards).

From a complementary perspective, Carruthers et al. inform the policy debate by analyzing the propensity of noncitizens living in public and subsidized housing in the U.S. to naturalize within the broader literature on the role of naturalization and its interaction with the welfare state in destination countries. In so doing, they outline paths to citizenship, they document the growth in the number of noncitizens participating in public and subsidized housing programs, and assess the naturalization outcomes among program participants in the U.S. from 2007 to 2009. Their key finding is that individuals participating in voucher programs are significantly and substantively more likely to naturalize than those participating in public housing programs. Hence, they conclude that the transition to naturalization is better served through a market based approach and the spatial mobility it fosters.

Going beyond housing markets, Bell and Machin (2013) focus on a very hotly debated topic, namely whether immigration is associated with higher or lower crime. In particular, they focus on those “enclaves” where the presence of immigrants is high (more than 30 percent of the population) as those are often considered the most problematic neighborhoods. Immigrants may miss on the interaction with natives and hence may fail to assimilate in terms of language and job perspectives. Moreover, higher density of population and possibly lower income may generate strong negative outcomes such as increased crime. What Bell and Machin find, however, is very interesting and somewhat surprising. Their analysis reveals that the presence of an immigrant enclave is associated with lower crime and such result survives many controls and instrumental variable estimation based on past settlements of immigrants. The presence of a large share of immigrants, especially if from the same country, generates much lower crime rates. This is a very interesting empirical test of the fact that immigrants may be different in their incentive and behavior from natives. Social networks and reputation effect in the community may be stronger and push towards a socially acceptable behavior members who are on the margin. Similarly, the pressure of the network of peers (of the same country and religion of origin) may induce less deviant behavior in members at risk. While the perception of natives may be different, enclaves of immigrants may actually provide an effective way of crime-reduction.

The picture emerging from this first group of contributions is, therefore, that the local amenities of cities may be deeply affected by the presence of immigrants. In part, this is due to the fact that immigrants bring to urban areas important dynamics of population growth and a different age profile, which affects markets (housing) and prices. It is also due to the fact that immigrants bring their networks, amenities and specific behavior with them, which may again affect the outcome of natives.

3. IMMIGRATION AND THE FIRM

Turning the attention to total factor productivity and the skills of immigrants, three papers in this issue are very interesting examples of recent studies that bring the firms (hiring immigrants) at the forefront of the analysis. While the recent trade literature has fully appreciated the importance of analyzing firms if we are to understand trade, offshoring, outsourcing and their effect on productivity, wages and employment (see, e.g., Helpman and Itskhoki, 2010; Helpman, Itskhoki, and Redding, 2010; Felbermayr, Prat, and Schmerer, 2011a, 2011b), the immigration literature has only just begun to consider how firms respond to the availability of immigrants and what this implies for the jobs and wages of natives. The focus on the firm as unit of analysis has been made possible, only recently, thanks to the availability of firm-level data that identify the birth-place of workers. It has pushed researchers to think harder about some characteristics (skills) of immigrants (beyond schooling), such as their communication and manual abilities (Peri and Sparber, 2009), their language acquisition (Chiswick and Miller, 2010) as well as their legal status (undocumented or not) as possibly affecting their productivity, role in the firm and their outside options.

The inflow of immigrants in a labor market provides a new set of options for the firm. Immigrants specialize in different tasks than natives, thus signaling possible productivity gains from complementarity. Even when their tasks overlap with natives', hiring them may enable firms to cut costs and expand production because, due to their worse outside options, they are willing to take lower wages. This could affect the performance and the survival probability of firms. The paper by Olney (2013) looks at the very important question of whether firms respond to the abundance of immigrants by expanding their productive capacity and building new establishments. Looking at immigrants and establishments in the U.S. from 1998 to 2008, Olney shows that cities with large inflow of immigrants absorbed them by increasing significantly the number of establishments and not by increasing the number of workers per establishment. This response was shown to be strong already within one year. The expansion of firms by adding establishments ("extensive margin") is consistent with the lack of any negative effect of immigrants on wages typically found by the previous literature (see, e.g., Card and Shleifer, 2009). These findings suggest that immigration stimulates investment and increases the size of the economy without crowding out native workers.

Keeping the focus on the effect of immigrants on firms, Brown, Quispe, and Hotchiss (2013) use a unique database on undocumented immigrants (identified as owners of fake social security numbers) matched to firms in Georgia. They analyze whether hiring undocumented workers increases the probability of survival of a firm. Previous papers have shown that hiring immigrants results in the reduction of costs for firms because immigrants, having a weaker bargaining position, can be paid a lower wage (see Ottaviano, Peri, and Wright, forthcoming). Brown et al. exploit the fact that being undocumented may increase further the bargaining power of the firms towards the immigrants, allowing them to extract more surplus and increase their profits. They show that firms employing undocumented immigrants have a significant lower probability of exiting, especially in sectors where the majority of other firms also employ undocumented immigrants and if they produce labor intensive goods. If we consider the probability of exiting as inversely related to profits, the results are consistent with the idea that undocumented immigrants contribute to cost reduction for the firm.

Finally, Lofstrom, Hill, and Hayes (2013) further explores the labor market consequences of being undocumented. In particular, by looking at immigrants who achieved legal status as a consequence of permanent residence, the authors analyze whether this affected their wage, employment and professional perspectives. They find that the effect was very small or negligible, especially for a large group of less educated immigrants. Ultimately, the main characteristics affecting immigrants' labor market outcomes were found to be education, experience, language skills and location rather than their legal status.

These studies, taken together, use very original data to shed light on very interesting questions linked to the role of immigrants on firm's growth. Also the analysis of undocumented immigrants, their specific characteristics and their impact on firms is a promising avenue of research to be further developed.

4. CONCLUSIONS

Current research on the effects of immigration is benefiting from fruitful interdisciplinary cross-breeding at the intersection among regional science, economic geography and various strands of economics, especially labor, international and urban economics.

The common denominator of these different fields is the micro-econometric analysis of how people and firms interact in open but localized ecosystems as these are altered by immigrant flows. This "new" approach has the potential of moving forward with respect to the "classical" approach by highlighting the role of localized externalities and workers' (and firms') heterogeneity. We think the papers in this special issue successfully are successful examples of how that potential can be achieved.

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