

# **Immigration, Labor Markets and Productivity**

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## **1. Introduction**

According to a survey, done in 2008, about 50 % of Americans perceived immigration as a problem rather than as an opportunity<sup>1</sup>. Similar surveys conducted in the pre-recession years (2007) also showed that Americans were much less supportive of more open immigration policies than they were of other aspects of globalization such as free trade or free capital movements<sup>2</sup>. Since the onset of the recession of 2008-2009 and during the jobless recovery of 2010-11, the public opinion about immigration has further deteriorated. The idea that immigrants take American jobs, depress national wages and threaten the U.S. economy has become even more rooted, as it has often happens during economic recessions. The political discourse accompanying the economic and labor market impact of immigrants is very intense and pervasive in the media but often generates “more heat than light”<sup>3</sup>.

Americans are not alone in fearing immigrants. Europeans have grown extremely concerned too. Immigration flows have surged dramatically during the last ten years in some E.U. countries. The share of foreign born in the population has risen to be 13.5% and 7% as of 2009, in Spain and Italy, respectively, from levels equal to 3% and 2% as recently as 1999. Other countries with a longer history of immigration and smaller flows during the last decade are still dealing with issues of integrating previous immigrants (e.g. U.K. and Germany). The tone and quality of the debate is, if possible, even more acrimonious in Europe and politicians have sometimes catered to these anti-immigration sentiments. In the U.K. all the main parties in the 2010 elections advocated lower levels of immigration. In Spain the Socialist government has promoted during the last two years a “pay to go” initiatives offering cash-payments for immigrants to leave the country.

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<sup>1</sup> Transatlantic Trends (2008)

<sup>2</sup> Pew Research Center (2007)

<sup>3</sup> The quote is from page 163 of Goldin et al (2011)

In the frame of this diffuse perception of immigration as a cost to the host country what do economists have to offer? Can we help to increase the “ratio of clarity-to-volume” that, as economist Paul Romer says, is usually minimized in the public discourse on immigration? I think that in offering the simplified (but also somewhat enlightening) perspective of considering migrants mainly as workers and analyzing the gains and costs that they generate for themselves and for the host country, we can make some progresses in clarifying some misconceptions. In this article I will take a strictly economic perspective on migration, considering, specifically, the migrants as workers. While not all international migrants move with the immediate perspective of a job, many of them do. Those who do not (refugees, migrants for study reasons) still consider the improvement of their future economic opportunities as one of the main reason for the move and eventually look for a job.

I will begin, in Section 2, with a “global” perspective which is the best one to understand what formidable opportunities migrants generate, from a productive point of view, for the World as a whole and for themselves. A short story will help me to illustrate what kind of technology would be needed, in absence of immigrants, to generate the same productive effects. In Section 3, I briefly describe the migrants, in terms of their skills and productive characteristics. Then in section 4, I will zoom in on the effects that they have on the host-country labor markets: on the wages and jobs of their citizens and on the productive opportunities of their firms. I will discuss specifically the recent evidence, and some theory, relative to the US case. Throughout the analysis it is useful, from an analytic point of view as well as for policy considerations, to distinguish between two types of migrants: those with high and those with low education. They play two distinct and important, roles in the labor market and in the productive structure of the receiving economy. In section 5 I briefly summarize the evidence on immigration and the labor markets in some other rich countries (mainly European) and discuss what we can learn from such comparative perspective. Finally in section 6 I conclude stating some guiding principles which can be helpful also when thinking about immigration policies.

## **2. Migrations: The World Perspective**

In stark contrast with the popular perceptions described in the introduction, if one looks at several recent reports and studies on international migrations by economists and research institutions their main emphasis is on the large size of global gains obtainable by increasing, even by little, the mobility of people. A study by the World Bank (2006) estimated that an increase in international migration equal to 3% of the labor force of developed countries would produce gains (to be shared globally) of \$ 356 Billion<sup>4</sup>. The economist Lant Pritchett (2006) argues that the gains from increasing international mobility, even by a little, are much larger than those that can be obtained by fully liberalizing international trade (estimated, in 2005, at \$ 104 billion). In the more extreme case of a full opening of OECD countries to workers from the rest of the world, Klein and Ventura (2007)<sup>5</sup> calculate a potential massive increase in the world GDP in the order of 150% over fifty years. For economists, in short, international migration has the formidable ability of increasing total world income and productivity generating huge global economic opportunities. The reason is very simple. By moving people to countries where they can produce a value 4-5 times larger (on average<sup>6</sup>) than in their country of origin, migrations allow the use of world human resources in a massively more efficient way. Migrants receive a large part of these productive benefits in the form of increased personal income, and bear most of the costs of migrations. The relevant questions that we need to tackle, however, is: what is in this exchange for the host country? Are the huge gains of immigrants taking place at the expenses of native's jobs and wages? Or can they gain too from this efficient world allocation of workers? Let me use a story to illustrate what would take, in terms of technology, to achieve the same productive results that are achieved, for the U.S., by immigration.

### **2.1 Digression: The story of an international Company**

Let's think of a spectacular new company, let's call it INTER-MIG U.S.A. that opens business in the US and in some less developed countries. This company rents some wonderful

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<sup>4</sup> World Bank (2005).

<sup>5</sup> Klein, Paul and Ventura, Gustavo J. (2007).

<sup>6</sup> This is the average estimate of the income effect of migration to the US for an international migrants, in the calculations of Clemens M., C. Montenegro and L. Pritchett (2009).

machines, “computer-robots” we may say. They come in two types. One type can perform tasks that are hard, tedious, they may need to be done non-stop night and day or are simply time consuming and require very good manual skills. Example of those tasks are picking fruit, working in the sun pouring concrete, building walls, mowing lawns, cleaning homes, taking care of young children, assisting old people day and night or driving means of transportation. The rental cost of these machines is reasonable: much less than the wage of an average American worker. Those machines are also very reliable: they are long lasting and rarely damage or break down. American families, firms and offices would be immensely excited at the new opportunities that those machines open to them. Several women could finally look for a job, leaving part of the care of the house, children and parents to these “computer-robots”. Firms could finally move their workers out of manual tasks and out of the hard outdoor tasks in the sun, at night and move them to supervise, coordinate the work of these machines. They can use the skills of their American workers to think of expansion for the firms, of new goods to produce, of new services to offer and still can meet production orders, expand output and cut the costs thanks to the machines. The second types of “computer-robots”, on the other hand, perform completely different tasks. They work in laboratories, engineering projects, research centers, innovation centers and can help scientists to come up with new ideas, new methods, and innovative solutions. Each American engineer, or doctor or professor may envision a team of “computer-robots” increasing the ability of her own laboratory, institute or research center to produce innovative output. The machines are often better than the American scientists themselves! Not to mention the American Law firms, Companies, Hospitals, Schools that can rent the machines, improve their services and specialize their workers in a way that makes the best use of these prodigious machines. This creates fantastic new opportunities for businesses in the U.S.

The company INER-MIG U.S.A. operates also in developing countries. What it does there, say in Mexico or China, is that it associates each machine (of the first or second type) to a worker. Every time that the machine is rented in the US, the company pays a salary that is 5-6 times the local outside option, to have the worker continue doing what he was doing before: working in agriculture, or construction (if she is associated with the first type of machine) or in a school or hospital (if she is associated with the second type). To workers of the poor country this too will look like a fantastic option: same job as before for a salary 5-6 times higher. The company will

thrive globally and people will have only good things to say about it. Many other countries wish they could be next in the operations of the company.

From the labor market perspective what is accomplished (with a futuristic technology) by INTER-MIG U.S.A. is exactly what international migration accomplishes for the US and for immigrant workers. Only, rather than machines, it will be people to perform the described jobs in the U.S. and they will move from a country to another. One would think that the enthusiastic response that U.S. families and firms are likely to have for INTER-MIG U.S.A. is even larger for immigration: people, rather than machines, will do those jobs and people are, after all, much more pleasant, engaging and inspirational than “computer-robots” and they bring, together with the manual skills, also relational, human, personal and spiritual values that we cherish and love. To the contrary, as described in the introduction, the majority of Americans consider immigration as a problem. Clearly the actual migration process involves many other aspects of moving people with their culture, their needs, their families and these may generate complex and problematic dynamics. However from a pure labor market point of view, which is the one I am taking here, the advantages, gains and cost for the U.S. of international migrations are exactly those brought about by the operating of the machines of INTER-MIG U.S.A. Let’ keep this example in mind as I describe in a more scientific fashion the recent research on immigrants to the US and their labor market effects.

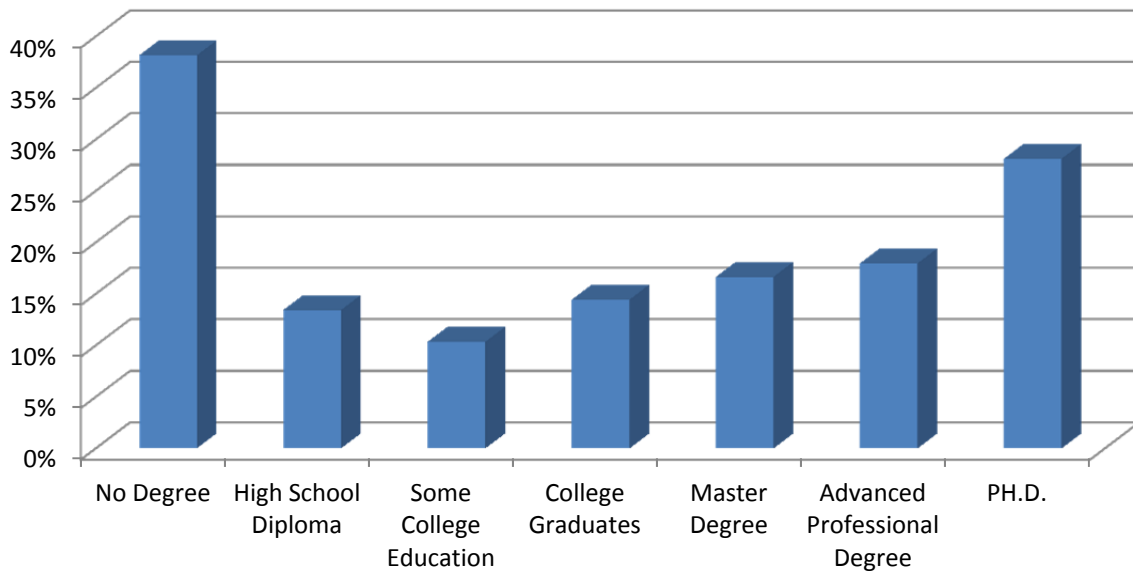
### **3. Who are the international migrants?**

Recent research, based on comprehensive data on net migration to OECD countries has shown that two groups have a much larger probability to migrate both out of rich and out of poor countries. First, Docquier et al (2010) show that workers with high education, and in particular college educated ones, have emigration rates 4 to 5 times larger than workers with no college education. For poor countries the probability of emigrating increases up to 10-12 times with a college degree. Second, several studies show that migrants are young. The cohort with highest migration probability is the one between 20 and 30 years of age and after 45 years of age few people migrate. Analyzing recent migration trends across countries, Grogger and Hanson (2011)

show that these young and highly educated workers, with high migration rates, are attracted by countries that pay high wage premium for college education and where English is the predominant language. Both factors contribute to make the U.S. a very attractive destination for them. While some countries, such as Australia and Canada, further encourage this selection with immigration policies that favor young and highly skilled individuals (and hence receive a large share of those), the U.S. does not have an official special preference for these categories. Still, due to its large wage premium to highly educated and to the highly dynamic professional environment of its companies and research centers, the US attracts almost half of all college-graduate migrants in the world. Hence foreign-born are a high percentage of the very highly educated workers in the U.S.

Another group, however, is also over-represented among immigrants to the U.S. They are young workers with very low education, employed in highly manual-intensive occupations. Ordering the schooling levels from low to high the percentage of foreign-born has a U-shaped distribution across groups. Figure 1 shows the percentage of foreign-born in each group as of 2009. It is clear that immigrants are over-represented among very high and very low levels of education. The group of immigrants with very low education is made in part of undocumented workers. This is due, in part to the fact that there are very few legal ways of entry for foreign workers with low schooling levels. We will see however that the current composition of U.S. immigrants by skill follows the labor-market logic. Possibly this is one reason why, if strongly criticized by many, the current U.S. immigration system, based on attracting some highly educated and tolerating undocumented less educated immigrants, has been very hard to modify.

**Figure 1:  
Percentage of Foreign-Born by skill-group  
USA, 2009**



#### **4. Evidence on Labor Market Effects: Productivity, Wages, Jobs**

##### **4.1 The Malthusian fallacy and four adjustment margins**

There are useful models in the economists' toolkit to analyze the "partial effect" of a variable. The labor demand curve is one of them. If technology and capital (machines) are fixed the labor demand curve slopes downward. Other things equal, that is, an increase in labor supply reduces the productivity of workers (crowded in an economy of given size) and hence their wage. This is correct. This partial equilibrium reasoning, however, is often pushed to its Malthusian implication that more people (workers) in an economy mean lower wage and lower income. In a variation of this type of reasoning more workers of one type (foreigners) need to displace workers of another type (natives). These partial equilibrium implications are likely to be incorrect, theoretically and empirically, in "general equilibrium". The working of four

important mechanisms which attenuate and may reverse the partial equilibrium effects of an increased supply of foreign workers on the demand for native workers.

The underlying assumptions of the partial effect analysis are that workers are homogeneous and that other variables are fixed. Both assumptions are incorrect, even in the short run, and particularly in the medium-long run. There are four specific mechanisms, triggered by the inflow of immigrants, which generate response of other variables and that have been studied in recent research papers. I describe them in turn.

### **a) Investments**

As a consequence of the availability of more workers, firms invest: they expand their capacity and more of them are born. Returns to capital increase when more workers are available, and firms take advantage of this by investing. What matters for the average productivity of labor (and average wage) is capital per worker (the intensity of machines). This, as shown in Ottaviano and Peri (2008) has grown in the U.S. economy at a constant rate (driven by technology) during the whole period 1960-2009. If anything, capital per worker was higher in 2007 (peak of immigration) than it was in 1990. Investments, which were responsive to the relatively small and predictable inflows of workers<sup>7</sup> represented by immigration, maintained the capital intensity of the economy growing at a constant rate. In Peri (forthcoming) I find the same story analyzing individual U.S. states during the period 1960-2005. In each state investment responded to net immigration to maintain the capital intensity of the economy roughly constant over ten year intervals. Hence immigrants did not crowd existing firms over the long run, but they simply increased the size of the economy. This is, incidentally, what any model of growth (beginning with Solow 1956) would predict for the long-run: An increase in the size of population does not affect wages but only the total size of the economy. Wages are determined in the long run by labor productivity only.

### **b) Differences Among workers: more and less educated**

Workers are not homogeneous. In terms of their labor market skills and productive activity there is a large difference between workers with high levels of schooling (tertiary education) and those with secondary or less. They use different skills and take different jobs. It makes

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<sup>7</sup> Net immigration was around +0.4% of employment per year in the period 1990-2007.



sense to distinguish between these two groups as two different production factors. A modified version of the wage-effect of immigrants along the labor demand curve is that, if the relative supply of less educated workers among foreign-born is larger, they depress wages of less educated relative to highly educated natives. In the US as a whole, however, because of the combination of immigrants at the top and at the bottom of the schooling distribution, if we consider two groups of workers (more and less educated) immigrants have a distribution similar to that of natives<sup>8</sup>. Hence their inflow did not alter much the relative supply of the two groups. Labor economists<sup>9</sup> consider the split between these two education groups (with and without tertiary education) as the most relevant to understand the effects of relative supply, of skill-biased technology and of institutions on the relative wages. Hence as immigration, did not alter the relative supply of these two groups it is unlikely to have changed their relative wages. At the national level immigration cannot explain the observed increase in relative wage of college educated versus high school graduates observed in the eighties and nineties<sup>10</sup>, simply because it did not change much their relative supply.

### **c) Specialization and technology: Job upgrades.**

Even more interesting is the differentiation of skills and productive characteristics between natives and immigrants *within* each of the two schooling groups. One very strong tendency among immigrant workers with low schooling is to concentrate prevalently into manual jobs. In manufacturing, construction and agriculture, for instance, they work as farm laborers, construction workers, roofers, drivers and so on. In services they work in food preparation, house services, child and elderly care. To the contrary similarly educated natives work in jobs which use more intensively communication and interaction skills such as cooks, construction supervisors, farm coordinator or clerks. In Peri and Sparber (2009) we show that, due to the limited knowledge of the language, immigrants have a comparative advantage in manual type of jobs. Hence they specialize in those, and in firms and sectors that hire immigrants, this produces higher demand for jobs of coordination and interaction typically staffed by natives, whose language skills are superior. This dynamic specialization to tasks according to skills pushes

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<sup>8</sup> Using American Community Survey data, 38% of new immigrants in the decade 2000-2009 had a high school degree or less. Exactly 38% was also the percentage of natives with high school degree or less as of 2009.

<sup>9</sup> Examples are Acemoglu (2002), Katz and Murphy (1992), Goldin and Katz (2008) and Card (2009).

<sup>10</sup> Documented, among others, by Autor et al. (2008)

natives to upgrade their jobs (as communication-intensive occupation pay better than manual intensive ones) and protects their wages from competition of immigrants. By taking the manual jobs that natives progressively leave, immigrants often push a reorganization of production along specialization lines that may also increase effectiveness and efficiency (as shown in Peri 2011) of labor. In a related line of research Lewis (forthcoming) shows that, in markets with many immigrant workers, firms adopt techniques that are particularly efficient in the use of less educated, manual-intensive type of workers. Hence they are able to absorb a larger number of less educated manual workers without a loss in productivity and wages. In some studies (as in Ottaviano and Peri, 2011) the mechanism described here, combined with the other effects described in a) and b), results in a small positive effect of immigration on wages of less educated native workers. On average that study finds that immigration over the period 1990-2006 affected the wage of native American workers with no degree between -1% and +1.5% depending on the exact assumptions and on the strength of the three described mechanisms. The same study finds that American workers overall have gained 0.6% in their wages because of immigration during the period 1990-2006 once investment, heterogeneity and specialization are accounted for.

**d) Lower wages of immigrants: Opportunities for Cost cutting and job creation**

A more recent line of research considers another aspect of immigrants' labor market performance as an opportunity for firms and for native workers. One common empirical finding in the literature is that immigrants, for similar characteristics and skills are paid less than natives. This is in part due to the fact that many immigrants, because of worse outside options (such as going back to their country), have lower bargaining power with the firm. In this case firms pay immigrants less than their marginal productivity, increasing their profits. Such cost-savings on immigrants act as an increase in productivity for firms: they are likely to expand and hire more workers, also in the complementary jobs performed by natives. Ottaviano et al. (2010) show that if a firm can cut costs in some productive tasks by hiring immigrants, this allows the firm to expand production and employ more people in the complementary tasks many of which are supplied by natives. Chassamboulli and Palivos (2010) show that more immigrants push firm to create more jobs to take advantage of the lower cost of hiring them. Some of these jobs, then, end up to natives whose unemployment

rate can actually decrease as a consequence of this. Notice, also, that as immigrants are employed in productive tasks different from natives the fact that they are paid less than their marginal productivity is not easily classifiable as “discrimination” as it appears as compensation for different jobs.

In summary investment by firms, specialization of natives, complementarity between natives and immigrants, technological response of firms and job creation are the margins along which the economy responds to immigration. They all attenuate the “partial effect” due to a movement along the labor demand generated by increased labor supply. This explains why a long tradition of empirical economic studies (summarized by Friedberg and Hunt 1995, and then continued by Card 2001, 2005, 2009, Ottaviano and Peri 2006, 2008 and Peri 2011) has found very small to no effect of US immigration on native wages and employment at the national and at the local level. Other studies (e.g. Borjas 2003, 2006) have found negative wage effects on less educated workers at the national level in the order of -3% over the 1980-2000 period. Even those studies, however, find positive wage effects for workers with intermediate to high schooling level (+1/1.5%). The small negative wage effects found in Borjas are possible but, in my opinion, they focus mostly on the competition channel and overlooked the margins of adjustment described above.

#### **4.2 More Labor Market effects of Immigrants**

There is another interesting labor market effect of less educated immigrants, recently studied, that is worth mentioning before discussing the impact of highly educated immigrants. In the U.S. (and in many European countries) one sector in which the presence of foreign born has been large and growing fast is that of home services (cleaning, food preparation, gardening and similar) and personal services (child and elderly care). These are often characterized as “household production” services. This has allowed several women, often highly educated, to afford these services and join the labor force or to increase their hours worked. Cortes (2008) show that the inflow of less educated immigrants reduced the cost of those “household production” services by almost 10% over the period 1980-2000. Moreover, as a consequence of

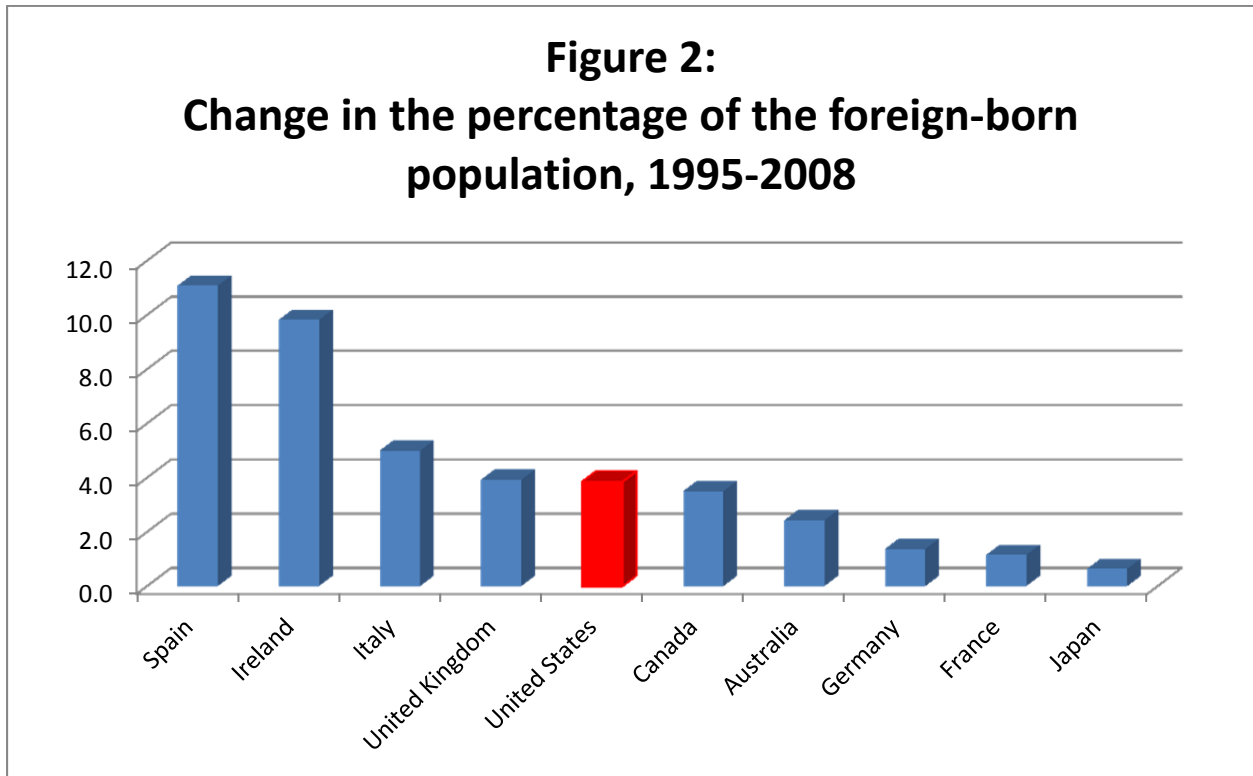
this, Tessada and Cortes (2011) show that women, especially those with high education, increased their work week by about half an hour, because of less expensive services. Low skilled immigrants, therefore, allowed the large productive potential of highly educated women to be used on the labor market by substituting part of their tasks in the household production.

Much less needs to be said to convince the reader of the positive contribution to productivity and employment of highly educated immigrant workers. They are a huge asset for the U.S. economy that, as we said above, attracts the best and brightest from all over the world. A large part of them are scientists and engineers (Gauthier-Loiselle and Hunt, 2011). They account for about one third of the U.S. innovation (Kerr and Lincoln 2011). One quarter of all U.S. based Nobel laureates of the last fifty years was foreign-born (Peri 2007). They have been founders of 25% of new high-tech companies with more than one million dollars in sales in 2006 (Gauthier-Loiselle and Hunt, 2011) hence generating income and employment for the whole country. Over the period 1975-2005, according to NSF (2005) the whole net growth in the number of U.S. PHD's was due to foreign-born. Currently about half of PHD working in science and technology are foreign-born. Innovation and technological growth are the engines of economic growth hence the attraction of human capital at high and very high level of skills is key to the continued economic success in technologically advanced countries such as the U.S. Several economic analysts<sup>11</sup> have emphasized that the inflow of highly educated immigrants is a valuable competitive edge that the U.S. has over other advanced and competing countries such as Japan and Germany. The first has essentially closed the doors to all kinds of immigrants (see also Figure 2, below), the second attracted in the 2000's much fewer immigrants that it used to. Ultimately, labor productivity, the sole driver of wage growth in the long-run, depends on innovation and technological development. Hence highly educated immigrants in science and technology contribute, through scientific innovation, to raise productivity and income per person. Notice that the huge increase in the wage premium for highly educated in the U.S., during the last few decades (as documented in Katz et al 2008, among others) is a sign of increasing demand relative to supply for this type of workers. The recent slow-down in the growth of graduation rates from college for U.S. born (Card 2011) and the massive increase in demand for

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<sup>11</sup> See for instance the Financial Times at <http://ftalphaville.ft.com/blog/2011/06/06/585096/demographics-and-destiny-us-immigration-edition/>.

them imply that highly educated immigrants are likely to fill a demand gap rather than put downward pressure on native wages.



### 5. A Quick look at other Countries

The largest immigration rates among developed countries during the last decade were not experienced by the United States or by the other traditional countries of immigration (such as Australia or Canada). Figure 2 shows the increase in foreign-born as percentage of the population in some representative OECD countries. Spain, Ireland and Italy had a net inflow of immigrants equal to 11.1%, 9.8% and 5% of their population during the period 1995-2008. The U.S., in comparison, experienced net immigration equal to 3.8%<sup>12</sup> of the population during the same period<sup>13</sup>. As mentioned above this rapid growth has stirred an intense debate in Europe on

<sup>12</sup> Canada had an immigration of 3.5% and Australia of 2.4% of its population.

<sup>13</sup> The data are from Table GE3 of OECD (2011)

the costs and benefits of immigration. Several studies on the impact of immigrants on European economies confirm some of the findings for the U.S. In particular the small, usually insignificant, effect of immigration on wages and employment of natives seem to be an empirical finding for European countries as well<sup>14</sup>. I would like, however, to emphasize two differences between immigration to the U.S. and to Europe. They both reveal a competitive advantage of the U.S. First, most countries in Europe, especially, those in continental Europe attracted fewer of the very highly educated immigrants. Probably because wage premia for highly educated are smaller in Europe, and because taxation is more progressive and the protection of local professions is stronger, highly educated immigrants seem less willing to try a career there. The U.K. and Canada and Australia are the biggest international competitor of the U.S. for these mobile brains. Continental Europe is missing most of them (as well as many of its native brains) to the Anglo-Saxon countries (see Saint-Paul 2004, for an account of the phenomenon). This implies large losses in the potential for growth, innovation and technological progress for continental Europe, especially in the long-run,

Second, European countries have attracted very large inflows of young, less educated immigrants, who have performed, even there, the manual and “home-production” services that natives still demand but do not supply. However, while generating some upgrading of native jobs<sup>15</sup>, the higher rigidity of the labor markets, the protection of insiders, the high costs of job transition have reduced the working of this mechanism<sup>16</sup>. Paradoxically, the labor market protection for native workers has hurt natives and particularly the less educated ones, by preventing the occupational mobility that shielded them from wage competition of immigrants in the U.S. European countries with lower employment protection (lower unemployment subsidies, lower costs of hiring and firing) such as Denmark and Ireland have responded better to immigrants, experiencing more intense job upgrading by natives and less wage competition.

Finally let me notice that in Europe, as in the United States but to a larger extent, immigration has been the main contributor to growth of the labor force during the last decade. The fast aging of the population and the shrinking of the young cohorts are generating imbalances by increasing the dependency ratio (measured as retirees divided by workers), and reducing the supply of new workers. Immigrants can alleviate the consequences of these

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<sup>14</sup> See the survey of the literature by Kerr and Kerr (2011)

<sup>15</sup> See Amuedo-Durantes and De La Rica (2011).

<sup>16</sup> This phenomenon is analyzed in D’Amuri and Peri (2011).

phenomena. From a demographic point of view, the more balanced composition between young and old workers in the labor force and the larger number of workers relative to retirees are the big benefits that immigration can bring to Europe.

### **Conclusion: Summary and some Key Ideas**

Immigrants, especially those from poor to rich countries, create the potential for huge productivity and income gain at the global level. These gains accrue in large part to the migrant themselves. However the host country as a whole is likely to benefit as well. Moreover, while there are some categories of workers in the receiving country that may lose, not all the less educated native workers lose and in fact, on average, they may even gain.

In this study we have considered immigrants as workers and focused only on issues that concern their effect and role in the labor markets. While this is necessarily only a limited analysis, we think that it can bring clarity and new ideas to the debate. Here I summarize some of them.

From a labor market point of view it makes sense to distinguish between more educated immigrants (with tertiary education) and less educated ones. They are two distinct groups and the policies for their labor market access should be designed separately.

Overall I think that a re-calibration of the immigration policy of the U.S. more towards labor market needs and less based on family reunifications would have several advantages. Granted the unity of the nuclear family (head and dependents of the household) more distant family ties should not be preferred to productive characteristics of immigrants.

For highly educated, the H1B visa program, started in 1990, has certainly been the main channel to bring to the U.S. the best and the brightest. Given the large long-run benefits that this group generates for the whole economy, eliminating the cap on skilled immigrants would make sense. Even allowing automatic permanent residence for PHD's in science and engineering from a list of highly recognized international institutions, would make sense. The huge inflow of people in the US to pursue graduate studies at the most prestigious institutions in the world should grant them the possibility of staying in the U.S. if they graduate.

For less educated immigrants, the US needs to find a way to allow them legal entry and legal stay. The very large demand for immigrants in occupations such as construction workers, home services, hospitality services, agricultural workers and so on requires that temporary visas, with

possibility of renewal, should be granted under the sponsor of the employee to less educated workers. Clearly the demand for immigrants in these kinds of jobs is one of the driving forces that contributed to create the problem of the large groups of undocumented immigrants. Without finding a legal way to satisfy that demand and the continued employment of those undocumented there will not be a solution to the issue.

Finally, the inflow of immigrants as new workers in the U.S. labor market will continue to produce the right incentives for natives. The more vulnerable among them, those in manual jobs, with low qualifications should be helped to transition towards better skills and better jobs that use more communication and cognitive skills. Improved quality of schooling and continued training and upgrading on the job is what will equip the U.S. labor force with the tools to make the most of (and lose the least from) new immigrants. This has been happening already in the last decades, but can be enhanced and made easier. Immigration, just as trade and foreign investment, is ultimately a driving force of continued growth and can be used to improve the competitive advantage of the U.S. Recognizing these facts and managing the immigration policies to better achieve this goal and distribute its economic gains would probably increase the pragmatism of the debate and possibly reduce the partisanship and prejudice often involved in it.



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