Health at Work and Immigration*

Cristina Bellés-Obrero[1,4], Nicolau Martin Bassols [3,4] and Judit Vall Castello[2,4]

[1]Department of Economics, University of Mannheim.

[2]Department of Economics and Institut d'Economia de Barcelona, Universitat de Barcelona.

[2]Center for Health Economics, Monash University.

[4]Center for research in Economics and Health, Universitat Pompeu Fabra.

Abstract

This paper examines the effect of immigration on the incidence of workplace accidents for the native and immigrant population. Our identification strategy is based on the fact that the current geographical distribution of immigrants is strongly influenced by early migrant settlements that took place in the 80s. We use a novel dataset that includes the universe of workplace accidents in Spain from 2004 to 2015. During this period Spain experienced a great inflow (2003-2009) and outflow (2010-2015) of immigrants, which gives us the opportunity to study the symmetry of the effects. We find that the inflow of immigrants during the economic boom lead to a reduction of the number of workplace accidents for Spanish workers. Our estimates indicate that the number of working accidents suffered by the native population dropped by 10890 as a result of the inflow of immigrants. These effects are stronger for men and mild workplace accidents. However our estimated effect does not differ by the skill group of immigrants. We also show some evidence that the reduction in the number of accidents is due to a shift of Spain-born workers to occupations with less manual tasks. Finally, we find a precisely estimated zero impact of immigrant outflow over workplace safety for both native and immigrant workers.

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1 Introduction

Immigration and its consequences are a big concern in many developed countries. The current refugees crisis in the European Union, Brexit or Donald Trump's electoral promises to construct a wall on the Mexico-US border are just examples that immigration has been put at the forefront of the political debate in developed countries. But why is immigration such a big concern? There is an unfounded fear that immigration has detrimental effects over many socioeconomic variables, such as criminality, health, or labor outcomes. Previous literature has already analyzed the effects of immigration over the most diverse outcomes. This paper wants to contribute to this existing literature by examining the effect of immigration inflows and outflows over a new and previously neglected outcome; workplace safety. Furthermore, we distinguish between the effects for natives and immigrants by using a new population level dataset for Spain from 2003 to 2015.

The majority of the literature that has examined the effects of immigration over labor outcomes has mainly focused on its effects on wages and employment of the native population. Theoretically, the direction of this relationship is not clear. On one hand, an inflow of immigrants will increase the supply of labor, which could lead to lower wages and higher unemployment rates for the native population. On the other hand, an increase of the labor supply could make the economy more competitive, which could be beneficial for the native population in the long-run.

Most of the literature agrees that there is no robust evidence of a negative labor market effect of immigration on the native population. For instance, Altonji and Card (1991), Borjas (1994) Friedberg and Hunt (1995), or Gonzalez and Ortega (2011) do not find a robust significant effect of immigration over natives' wages or employment. On the other hand, Ottaviano and Peri (2005) analyze the impact of immigration on income and find that immigration affects positively natives' income. This relationship is explained by immigrants not perfectly substituting natives at their workplaces, and by immigrants having lower house ownership rates than the natives. Immigration lead to an increase in housing prices, which generates an income transfer from immigrants (lower ownership rates) to natives (higher ownership rates).

In the particular case of the Spain, Amuedo-Dorantes and De la Rica (2007) were the first to analyze the employment and occupational assimilation of recent immigrant waves to the Spanish labor market. Amuedo-Dorantes and De la Rica (2008) showed that immigration affected the occupational distribution of natives in Spain. In particular, they found that there was a shift of Spain-born workers from occupations with more manual tasks to occupations with more interactive tasks. Related to this last paper, Blanes et al. (2008), using the accounting decomposition of Hanson and

Slaughter (2002), showed that immigration inflows over the period 1995-2002 (before the largest inflows) had no perverse effects on regional labor markets. Carrasco et al. (2008), on the other hand, found that the growth in the share of immigrants during the period 1991-2001 was negatively correlated with the growth in employment rates and wages. However, their results are small and not robust to different samples and models. This led the authors to conclude that there was no robust evidence of a negative effect of immigration over the employment rates or wages of native workers. Finally, Gonzalez and Ortega (2011) is the closest to our paper, as we consider a similar framework and regional disaggregation. However, we are able to study a longer time period with a richer dataset for a different outcome (workplace accidents). Gonzalez and Ortega (2011) examines the effects of immigration over wages and unemployment of Spaniards between 2001 and 2006. Consistent with the existing literature, they report that both wages and unemployment of the native population were not distorted by the inflow of immigration during that period.

Even though the effects of immigration over labor outcomes has been greatly explored by previous literature, we believe there still exists some gaps that need to be studied. In this paper, we examine the effect of immigration over workplace safety. Workplace safety could be distorted due to changes in the labor supply generated by immigration inflows and outflows. For instance, an inflow of immigrants could add pressure to the labor supply and, as a consequence, Spain-born workers might feel forced to accept more precarious working conditions in order to keep their jobs. This will lead to an overall decrease in workplace safety, which could result in an increase of the number of workplace accidents.

Also, immigrants tend to be different from the average population of their country of origin as a consequence of self-selection into migration. A large number of authors have examined the phenomenon of self-selection among immigrants (Borjas, 1987; Bertoli, 2010; Fernández-Huertas Moraga, 2008; Moraga, 2011). The seminal paper of Borjas (1987) theoretically established that positive self-selection of immigrants exists if most immigrants pertain to the higher tail of the home country's income distribution. On the other hand, if most immigrants pertain to the lower tail of the home country's income distribution we are in a situation of negative self-selection. Bertoli (2010) empirically examined the profile of Ecuadorian immigrants at different countries during the years 1998-2005. He concluded that Ecuadorian immigrants tend to be less educated that the average individual in Ecuador, which mean that Ecuadorian immigrants are negatively self-selected into migration. In a similar manner, Moraga (2011) also showed that immigrants tend to be less educated and younger than the average individual in their country of origin. Some other authors, instead, analyze the selection of immigrants in terms of health. For instance, Farré (2016) examined the health at birth of children born to immigrants from Ecuador in Spain. According to

her analysis, children of these immigrants are more healthy than average children. She concludes that this scenario partly responds to the self-selection of healthier women into migration. Thus, the majority of this literature concludes that self-selection leads immigrants to be less educated, younger and healthier with respect to the average population. These characteristics can affect workplace safety in two different manners.

First, immigrants tend to work in unskilled jobs as a consequence of both having lower education levels than the average population as well as suffering from other labor disadvantages[1]. Unskilled jobs could be characterized as having a higher injury risk compared with higher skilled jobs. Thus, an inflow of immigrants could take over (from Spain-born workers) jobs that have a higher injury risk, improving the workplace safety of the native population. Second, it seems reasonable to assume that young and healthy workers will engage in safer attitudes at their workplace compared with older and unhealthier workers. Then, an inflow of younger and healthier immigrants (with respect to the native population) could improve workplace safety in general and reduce workplace accidents for natives.

Very few studies have explored the effect of immigration over workplace safety. Bauer et al. (1998) was the first one to examine the interdependence between native and foreign workplace accidents of blue collar workers in Germany in 1975. They concluded that the employment of immigrants had a strong positive effect over the job safety of German-born workers. Giuntella et al. (2016) considered the effects of immigration on the allocation of occupational physical burden and work health risk in the UK for the years 2003-2013. According to their results, immigration inflows lead to a reallocation of UK-born workers towards jobs characterized by a lower physical intensity and injury risk, thus improving workplace safety of natives. However, their data does not allow them to analyze the effect of immigration on workplace accidents.

The objective of this paper is to contribute to this scarce literature, examining the effect of inflow and outflows of immigrants over the proportion of workplace accidents of Spain-born and immigrant workers in Spain during a large time period (2003-2015). As the actual changes in the share of immigrant population might be endogenous, and correlated with shocks in the labor market, we follow the instrumental variable approach developed by Altonji and Card (1991), and Card (2001). Today immigrants' location decisions are strongly influenced by earlier migrant settlements of individuals of the same country of origin. Then, we use immigrants clusters during the 80s in the different provinces to distribute the nowadays national inflow of immigrants from each country

[1]Immigrants have to adapt to the language and social behavior of the host country. Moreover, in many cases, they do not have a strong labor and social network in the host country.

across the different provinces in Spain. This way we are able to reduce the endogeneity bias.

We find differential effects of immigration inflows and outflows over workplace accidents for Spanish workers. An inflow of 1,000 immigrants decreases the proportion of workplace accidents by 9 every hundred thousand Spanish workers. A simple back of the envelope calculation indicates that the number of working accidents suffered by the native population dropped by 10890 during the period 2004-2009 as a result of the inflow of immigrants during this period in Spain. This effect is larger for men than women. An inflow of 1,000 immigrants will reduce the proportion of workplace accidents by 14 every hundred thousand worker for men and by 5 for women. We also find that this effect is slightly more important for mild workplace accidents, compared with severe or fatal accidents. Therefore, we ackowledge that part of the reduction in workplace accidents for the native population could be driven by lower reporting of these mild accidents if natives fears of losing their jobs increases with immigrant inflows. Interestingly our estimated effect does not differ by the skill group of immigrants.

As previous literature (Altonji and Card, 1991; Borjas, 1994; Friedberg and Hunt, 1995; Gonzalez and Ortega, 2011), we also show that there is no significant impact of immigration over natives' overall employment. However, we do find that immigrants inflows influence the type of occupations in which natives are employed. Immigration inflows lead to a reallocation of native workers from more manual[2] to less manual occupations[3]. On the other hand,we show that immigration inflows increase the employment rate of immigrants in the agriculture sector, which also lead to a decrease in workplace safety for these workers. Therefore, the reduction in the number of workplace accidents that we find is partly driven by the reallocation of national workers towards jobs that have lower injury risks, as already pointed out by Giuntella et al. (2016) in the UK.

Finally, we do not find any effect of immigrant outflows (during the period 2010-2015) on workplace accidents for natives or immigrant workers.

The remainder of the paper is organized as follow. Section 2 explains the suitability of Spain for the objective of the study. Section 3 describes the data sources and introduces the empirical strategy. Section 4 presents the results and Section 5 concludes.

[2]In particular, we find that immigration inflow reduces the employment rate of natives in occupations such as low or medium rank officers in the armed forces, workers in agricultural, farming and fishing sectors, workers in the extractive industry, or domestic employees.

[3]In particular, we find that immigration inflows increased the employment rate of natives as technicians and associate professionals, or project managers and team leaders.

2 Why Spain?

In the past years Spain has experienced very drastic inflows and outflows of immigrants. More precisely, the share of immigrants with respect to the total population in Spain raised from 8.07% in 2003 to 15.78% in 2010. From 2010, this increasing trend was reversed and the share of immigrants started to decrease from 15.78% in 2010 to 13.54% in 2015. This fluctuation of immigrants over time can be observed in Figure 1. The strong inflow of immigrants until 2009 can be explained by the strong economic growth that Spain was experiencing during that period (partly led by a housing bubble), while the change in trend was due to the great recession of 2008. This scenario offers the perfect opportunity to study the symmetry of the effects of immigration inflows with respect to its outflows.

Another important characteristic of the immigration experience in Spain is that these inflows and outflows were quite heterogeneous across the different regions of Spain. This is probably a result of the huge cultural and socioeconomic differences that co-exist in the same country. Figure 2 represent the mean annual change in the share of immigrants (aged 25-54) for the 52 Spanish provinces. The first graph considers changes over the years 2003-2009, while the second graph considers changes over the years 2010-2015. We can observe a large heterogeneity among the 52 provinces. For instance, during 2003 to 2009, in Almería, La Rioja, Tarragona or Girona, the share of immigrants grow more than 1.5% every year on average. While for the same period, some other provinces experienced an annual growth rate of at most 0,1% [4]. During the time period 2009-2015 this differences across provinces is best reflected by a positive growth for some provinces and a negative growth for other ones. This heterogeneity is very useful for our aim as it allows us to compare how the intensities of this inflows and outflows of immigrants affected workplace accidents in Spain.

Thus, the fact that Spain has experienced a dramatic change in immigration in the past years coupled with the fact that the intensities of these changes were very different across its provinces, makes Spain a suitable setting for our study.

[4] Palencia, Jaen, Badajoz, or Melilla

3 Data and Empirical Straregy

3.1 Data Sources

For our analysis we use three different data sources: the Register of Workplace Accidents, the Spanish Labor Force Survey, and the Census of 1991.

The Register of Workplace Accidents is a newly released dataset that contains the universe of non-fatal and fatal workplace accidents that occurred in Spain from 2003 to 2015. This database is collected by the Spanish Social Security Administration and it contains personal information of the worker that was injured (gender, month and year of birth, nationality), information about the job that was performing at the time of the accident, and the moment, place, level of severity, and consequences of the accident. We have a total of 9,562,105 workplace accidents for the years 2003 to 2015. We restrict the analysis to population aged 25 to 54 (7,442,319 obs.), as this constitutes the bulk of working-age population and it minimizes the age composition effects[5]. We consider separately the number of workplace accidents for natives and immigrants. For our main specification we collapse the individual data (either for natives or for immigrants) at the level of year, province and gender $[\boldsymbol{WA}(\boldsymbol{t})_{rg}]$[6]. This way we generate a panel data of workplace accidents in each province and gender over time. For our heterogeneity analysis we will further collapse the individual data at the level of year, province, gender, and economic activity $[\boldsymbol{WA}(\boldsymbol{t})_{rga}]$[7] , or level of severity $[\boldsymbol{WA}(\boldsymbol{t})_{rgs}]$[8].

The Spanish Labor Force Survey (LFS) is a continuous quarterly survey that contains information related to the labor force status of the population living in Spain. We use this database from 2003 to 2015 (8,872,258 obs). As already pointed out by Gonzalez and Ortega (2011), we believe this database is appropriate to capture demographics of the foreign-born and native population. First, it is a reliable, large-sample, up-to-date database. Secondly, the LFS uses a sampling design based on the local population registry data. Therefore, this database is representative at the regional level. Moreover, we apply weights to the sample as provided by the Spanish Institute of Statistics. Among other information, the LFS contains information regarding the province of residence, educational level, age, gender, country of birth, employment status and economic activity of those that are employed. We will restrict the sample to individuals between 25 and 54 years-old. We follow (Gonzalez and Ortega, 2011) and construct three categories of educational level: high school

[5]Our results are robust if we re-estimate all models for the population aged 25 to 65.
[6]The collapsed data will have 1352 observations (13 years*52 provinces*2 sex).
[7]The collapsed data will have 5408 observations (13 years*52 provinces*2 sex*4 economic activities).
[8]The collapsed data will have 2704 observations (13 years*52 provinces*2 sex*2 levels of severity).

dropouts[9] high-school graduates[10], and university studies[11]. The information regarding education will allow us to check if the effects of immigration differ depending on the educational level of immigrants.

We use the LFS to construct several indicators used for the instrument and the dependent variables. First, we construct the annual inflow of migrants between the years 2003 to 2015 that we will use as part of our instrument. In order to do this, we restrict the LFS to individuals with a nationality different from the Spanish one and we collapse the data at the level of year, country of origin[12], gender, and educational level $[M(t)_{gec}]$[13] We also use the LFS to calculate the number of Spanish and Foreign-born individuals employed to use as a dependent variable. We first keep those individuals that are employed, and then collapse the data at the year, gender, province level, and educational level $[E(t)_{rge}]$[14].

The last database is the Census of 1991. This database surveys a representative sample of 5 percent of the population living in Spain in 1991 and collects information about some the individuals, households, buildings and dwellings. The raw data contains information on 3,894,525 individuals. We first restrict our sample to all those individuals aged 25-54 (1,523,483 obs.) and foreign (22,098 obs.). We use this database to calculate our instrument. In particular, we calculate the distribution of immigrants across the Spanish provinces in 1991. To do that we first collapse the individual data at the country and province level $[M(1991)_{rc}]$, and divide it by the individual data collapsed at the country level $[M(1991)_{c}]$[15].

3.2 Descriptive Evidence

In Figure 3 we can observe the evolution of the number of workplace accidents and the total number of individuals employed for both nationals (graph above) and immigrants (graph below). For Spanish-born individuals, the total number of employed individuals increased from 2003 to 2009, as we expected due to the economic boom that Spain was experiencing during these years. At the

[9]High school dropouts includes all individuals that at most completed the first stage of secondary education, or vocational studies that only required the first stage of secondary education as prerequisite.

[10]We consider as high-school graduates those individuals that obtained a high-school degree or those with middle or advanced-level professional training.

[11]Those with a university degree or beyond.

[12]We generate 17 different countries or areas of origin: France, Italy, Portugal, UK, Germany, Other EU-12, Other Europe, Morocco, Other Africa, USA, Cuba, Argentina, Venezuela, Mexico or Canada, Other Central America and Caribbean, Other South America, and Asia and Oceania.

[13]The collapsed data will have 1224 observations (13 years*2 sex*3 levels of education*17 countries).

[14]The collapsed data will have 4,056 observations (13 years*2 sex*52 provinces*3 levels of education).

[15]The collapsed data will have 884 observations (17 countries*52 provinces).

same time, the number of workplace accidents experienced by Spanish-born employees did not increase in the same measure. They actually remained quite flat during 2004 and 2009, around 650,000 accidents a year. During the same time period, the number of immigrants employed also increased substantially and, differently from the native population, the number of workplace accidents for these individuals also experienced a significant increase. After 2009, during the recession, we observe a decrease in the number of individuals employed, for both the Spanish and immigrant population. However, the number of workplace accidents decreased at a larger extent for the immigrant population than for the native one.

Table 1 reports the statistics on the percentage of workplace accidents per worker for nationals and immigrants during two periods of time: 2003 to 2009 and 2010 to 2015. The total number of workplace accidents and the total number of employees are collapsed at the province, year, and gender level (economic activity or level of severity). Note that there are more or less the same percentage of workplace accidents involving immigrants and nationals. On average, before 2009 there are 4.37 workplace accidents every 100 Spanish-born workers, and 4.69 accidents per 100 immigrant workers per year and province. After 2009, the incidence of workplace accident is lower for both nationals and immigrants (2.89 accidents per Spanish workers and 2.36 accidents per immigrant workers, on average). We can also observe that workplace accidents are more common for men than women, although this difference is reduced after 2009. As expected, before 2009 the construction sector is the one with a higher percentage of workplace accidents per worker (for both immigrants and nationals). After 2009, though, immigrants working in the agriculture sector have the higher share of workplace accidents. Finally, it is important to note that the majority of workplace accidents are considered to be mild.

3.3 Empirical Strategy

Our objective in this paper is to examine the effects of changes in immigration over workplace accidents of the native and foreign-born population. Thus, our main outcome variable will be the annual change in workplace accidents per employed individuals. In order to construct the dependent variable we first calculate the annual change in the number of workplace accidents of Spanish or foreign-born individuals per gender and province using the Register of Workplace Accidents $[WA(t)_{rg} - WA(t-1)_{rg}]$. Then, we divide this expression by the annual change in the number of Spanish or foreign-born employed individuals per gender and province $[E(t)_{rg} - E(t-1)_{rg}]$, obtaining our dependent variable of interest, $[\frac{WA(t)_{rg} - WA(t-1)_{rg}}{E(t)_{rg} - E(t-1)_{rg}}]$. To facilitate the interpretation we will multiply the dependent variable by 100,000.

On the other hand, our main regressor is the annual change in the number of immigrant population of a certain gender and education in a province. This regressor is constructed by subtracting the number of immigrants of a certain gender, and educational level living in a specific province in year t $[\boldsymbol{M(t)_{rge}}]$ to the number of immigrants of a certain gender and educational level living in that same province the year before $[\boldsymbol{M(t-1)_{rge}}]$. Then, our regressor could be expressed in the following way: $[\boldsymbol{M(t)_{rge} - M(t-1)_{rge}}]$.

Thus, we estimate a regression of the following form:

$$(\frac{WA(t)_{rg} - WA(t-1)_{rg}}{E(t)_{rg} - E(t-1)_{rg}} * 100,000) = \alpha + \beta(M(t)_{rge} - M(t-1)_{rge}) + \delta_t + \alpha_r + \mu_g + \gamma_e + \epsilon_{trge}$$

The main coefficient of interest, β is interpreted as the effect of an inflow of 1 immigrant of gender g and skill group e in province r on the number of workplace accidents of individuals of that gender g in the province r and year t over a hundred thousand workers . In addition, our specification includes year, province, gender and education fixed effects (δ_t, α_r, μ_g and γ_e, respectively). We estimate all regressions with robust standard errors using weights.

The inclusion of fixed effects addresses the issue of unobserved heterogeneity across time, provinces, gender or skill groups. However, our previous specification will still be affected by the endogeneity of immigrants location choices. For instance, immigrant inflows will most likely occur in provinces with high economic growth, low unemployment, and/or more jobs with lower injury risk (the other way around with immigration outflows). To solve this problem we adopt an instrumental variable approach following Altonji and Card (1991), Card (2001) or Gonzalez and Ortega (2011).

The objective of this instrument is to disentangle the exogenous part in immigration inflows and outflows from its endogenous part. In other words, we want a variable that is correlated with the percentage change of immigrant population, but is orthogonal to the local specific shocks and trends in the labor market conditions. This approach exploits the fact that changes in immigration are tightly linked to migrant networks. Immigrants tend to move to areas where big groups of immigrants from their same country of origin are already established. Then, we will use the Census (1991) to determine the cluster of immigrants of different countries across the different Spanish provinces in 1991.

The instrument is constructed in the following way. First, we use the Census of 1991 to calculate

the share of all immigrants born in country c living in province r in 1991 $\mathbf{[\Pi_{rc}]}$. Next, we calculate Spanish-wide changes over time in the number of immigrants from country c, with gender g and educational level e, $\mathbf{[M(t)^{esp}_{rc} - M(t-1)^{esp}_{rc}]}$. Then we build the imputed change of immigrants over time from country c, gender g and educational level e multiplying the Spanish-wide changes with the share of immigrants in each province in 1991. Finally, we obtain our instrument by summing up the previous indicator over all countries and dividing it by the entire population in the previous year:

$$Z(t)_{erg} = \sum_{c=1}^{C} Z(t)_{ergc} = \sum_{c=1}^{C} \Pi_{rc}(M(t)^{esp}_{rc} - M(t-1)^{esp}_{rc})$$

This instrument reflects the exogenous annual inflows and outflows of immigrants in Spain between 2003 and 2015. As is common in the literature, the exclusion restriction requires that the reasons why most immigrants had migrated to the different Spanish provinces in the 1980s are uncorrelated with the reasons why most immigrants migrated during the time period 2003 to 2015. We believe this to be a reasonable assumption as many years passed from 1980 until the time period included in our analysis.

4 Results

4.1 Instrument Relevance

In this section we examine whether our instrument is relevant, that is, the extent to which our instrument is able to predict actual changes in the migration flows. To do that, we analyze whether the instrument is correlated with increases in the actual change in the immigrant population. This will be our first-stage regressions. The dependent variable will be the change over time in the actual number of immigrant population of a certain gender g and educational level e taking place in province r: $\mathbf{[M(t)_{rge} - M(t-1)_{rge}]}$. Our main regressor is the instrument. Thus, we estimate the following regression:

$$(M(t)_{rge} - M(t-1)_{rge}) = \alpha + \beta(Z(t)_{erg}) + \delta_t + \alpha_r + \mu_g + \gamma_e + \epsilon_{trge}$$

Table 2 reports the OLS estimates of the first-stage regressions for two different time periods: 2004-2009 and 2010-2015. As we mentioned at the beginning of the paper, Spain experienced a

great inflow of immigrants from 2003 to 2009 due to the strong economic expansion in this period. However, this trend reversed with the recession that started in 2008, when Spain began to experience some outflows of immigrants (specially in certain regions). As we expect differential effects of inflows and outflows of immigrants over workplace safety, for the rest of the paper we will analyze these two periods separately. Within this period division, we explore the different effect of inflows and outflows of immigrants of different gender and educational level.

Across all the samples, we observe that the coefficient of our instrument is highly significant and close to one, as one would expect based on the definition of the instrument. Importantly, the F-statistics of the excluded instrument, for the majority of our subgroups, is also pretty high (greater than 10), indicating that the instrument is relevant and strong. However, the F-statistic goes way bellow 10 for individuals with a high school degree, or for the period 2010 to 2015. Therefore, we have to interpret the results for these subgroups with caution.

4.2 Baseline Results

In this section we examine the effects of the imputed changes in the number of immigrant population over the proportion of workplace accidents for native and foreign-born workers. In column 1 of Table 3, we observe this relationship for the overall group of native population during the period 2004-2009. The OLS specification in the top panel of the table already shows a positive and significant coefficient, which is very similar to the IV specification (bottom panel of the table). The similarity of the OLS and IV estimates indicates that the endogeneity problem in the migration inflows and outflows is not very relevant in our case. Thus, the cluster of immigrants of a certain country during the 80s in a certain province is a strong predictor of the destination choice of nowadays immigrants of that country.

We can interpret the coefficient in the first column of Table 3 in the following way: an inflow of a 1,000 immigrants of a certain gender and educational level in a province, decreases the number of workplace accidents by 9 for every 100,000 Spanish workers. As there is an average of 40209 workers of each gender and education level in each province and there is a mean inflow of immigrants of 1616 for each gender and educational level in each province, a simple back of the envelope calculation shows that working accidents were reduced by 10890 for native workers during the period 2004-2009. [16] In column 2 and 3 we observe that this relationship is slightly larger

[16] Our estimates show a reduction of working accidents by 0.0009 (for each 100000 workers) when 1 immigrant enters. As there is a mean of 40209 workers in each province (of each gender and educational level and year) each immigrant reduces accidents by 0.0036 (0.00000009*40209) for each gender, education, year and province. As, on

for men than for women. An inflow of a 1,000 immigrants in a province decreases the number of workplace accidents by 14 for men and 5 for women (every 100,000 workers). In columns 4, 5, and 6 of Table 3 we explore the same effects for the years 2009 to 2015. However, we do not find any effect for any of the subgroups (men or women) for this time period.

On the other hand, Table 4 shows the effect of changes in the number of immigrants over the change in the proportion of workplace accidents for the foreign-born workers. This table indicates that there are no effects of inflows or outflows of immigrants over their workplace safety.

4.3 Heterogeneous Effects

In this section we will analyze if the positive effect of immigrants over workplace safety differs by the skill level of the immigrant population. Table 5 shows the effect of changes in the number of immigrants of a certain education level (high school dropouts, high school graduates or college graduates) over the change in the proportion of workplace accidents for the native population. We can easily observe that the effect does not seem to differ by the educational level of the immigrants. However, we still observe that the positive effect is coming from the first time period (2004-2009). In Table 6 we perform the same analysis for the foreign-born workers. Again, we do not find any effect on workplace safety of immigrants by educational level and, as in the baseline regressions (see Table 4), all the coefficients are insignificant for foreign-born workers.

Also, it is reasonable to believe that the effects of immigration on the share of workplace accidents might differ greatly depending on the level of severity of the accidents. For one, the increase of competition for a job that immigration creates, could decrease workplace absences due to mild accidents. The fear of losing their job due to work absences might induce native workers not to report accidents if they are not severe. This mechanism is harder to apply for more severe accidents; in this case workers might not be able to ignore those very strong accidents when happening. As the Register of Workplace Accidents distinguishes between mild and severe working accidents, we perform the baseline analysis differentiating between these two type of accidents. Table 7 shows that the effect is larger for mild accidents compared to severe ones. This result indicates that part of the decrease in workplace accidents could be driven by lower reporting of mild accidents due to the fear of losing their jobs for native workers. Again, Table 8 indicates that for immigrants, there is no effect over workplace safety for any of the two levels of severity of the accident.

average, there is an inflow of 1616 immigrants (for each province, gender, education and year) accidents are reduced by 5.8 (1616*0.0036) (for each gender, education, province and year). Finally, as there are 52 provinces, 2 genders and 6 years and 3 educational levels, accidents are reduced by 10890 for native workers for the entire period (1872*5.8).

Finally, there are some types of jobs that have higher accident rates than others. Therefore, we could expect immigrant inflows and outflows to have a specific influence in workplace safety in the different economic sectors. In Table 9 and 10 we examine whether immigration inflow/outflows affect differently workplace accidents depending on the economic sector of the job. We divide our sample in four different economic sectors: agriculture, industry, construction, and services. The IV estimates in Table 9 indicate that changes in the share of immigrant population only affect workplace accidents significantly for those taking place in the construction and services sector between 2004 and 2009. In particular, we estimate that an inflow of 1,000 immigrants of a certain gender and educational level in a province, will decrease the number of workplace accidents by 39 in the construction sector and by 9 in the service sector (every 100,000 workers). Table 10, on the other hand, shows that during the period 2004 to 2009, the inflow of immigrants decreased workplace safety for immigrants working in the agricultural sector.

4.4 Possible Mechanisms

Workplace safety of native workers could have been changed through different channels. First, the inflow of immigrants could add pressure to the labor supply of nationals. Therefore, as a consequence, Spanish workers could feel obligated to accept more precarious working conditions in order not to lose their jobs, which could lead to an increase in the number of workplace accidents experienced. As we have found an improvement in workplace safety for native workers, we conclude that this channel is probably not that relevant.

Another possible channel is that an inflow of immigrants would take over (from Spanish-born workers) jobs that have a higher injury risk. This, in turn, would improve workplace safety of the native population. In order to explore the plausability of this channel, in this section we analyze the effects of the inflow of immigrant population over the total employment rate of both immigrants and nationals, as well as on the type of job that they have.

In Table 11 we observe that the inflow of immigrants during the period 2004 to 2009 did not have any effect on the total employment rate of nationals. This is true for both genders and for all economic activities. This result is in line with previous literature (Altonji and Card, 1991; Borjas, 1994; Friedberg and Hunt, 1995; Gonzalez and Ortega, 2011) that showed that there is no significant impact of immigration on natives' overall employment. In Table 12 we perform the same analysis but now looking at the effect on the employment of immigrants. We show that an inflow

of immigrants increases the employment of foreign-born individuals in the agriculture sector. In particular, an inflow of 1,000 immigrants of a certain gender and educational level in a province, increases the number of immigrant workers in the agriculture sector by 5.4 for every 100,000 workers. This increase in the number of immigrants working in the agriculture sector is consistent with the increase in the number of workplace accidents of immigrant workers in this sector reported in Table 10.

More importantly, we can explore if the inflow of immigrants during the period 2004 to 2009 had an effect on the type of economic activities in which nationals and immigrants are employed. In Table 13 we show whether the inflow of immigrants has an influence on the type of jobs that nationals hold. In particular, there is a decrease in the probability that Spain-born workers are employed as low-medium rank officials in the armed forces, are employed in the agrarian, farming and fishing sector, in the extractive industry or are employed as domestic employees. On the other hand, we also observe an increase in the probability of native workers being employed as managers with less than 10 employees, technicians, associate professionals, project managers, or team leaders. Table 14 shows the impact of the inflow of immigrants on the type of occupation that immigrants hold. Here we find that there is an increase in the probability that immigrants are employed in the catering, personal or protection sectors, as sellers or as employees in the agriculture sector.

This pattern provides evidence that the inflow of immigrants during the period 2004 to 2009 lead to a reallocation of native workers from more physical intense to less manual occupations, which tend to have lower injury risks. This can partly explain the improvement in workplace safety that we document among Spanish workers. Moreover, this result goes in the same direction as the findings of Giuntella et al. (2016) in the UK.

5 Conclusion

In this paper we have examine the effects of changes in the number of immigrants of a certain gender and level of education in a province over the proportion of workplace accidents of natives and immigrants. We use a novel dataset that includes the universe of workplace accidents in Spain from 2004 to 2015. As the actual changes in the number of immigrants in a certain province might be endogenous and correlated with labor market shocks, we use an instrumental variable approach. Previous literature has shown that earlier migrant settlements of individuals of the same country of origin play a large role in the immigrant's location decisions. Therefore, we use immigrants clusters during the 80s in the different provinces to distribute the current national inflow of immigrants

from each country across different provinces in Spain, thus reducing the endogeneity bias.

We find differential effect over two periods of time: 2004-2009 and 2010-2015. Our results show that during the economic boom (2004-2009), an inflow of a 1,000 immigrants of a certain gender and educational level in a province, decreased the number of workplace accidents by 9 for every 100,000 Spanish workers. A simple back of the envelope calculation indicates that the number of working accidents suffered by the native population dropped by 10890 during the period 2004-2009 as a result of the inflow of immigrants during this period in Spain. We show some evidence that this result is consistent with immigration leading to a reallocation of native workers toward jobs with a lower injury risk, as Giuntella et al. (2016) already found for the UK.

Interestingly, we find that the positive effect of immigration over workplace safety of the native population during the period 2004-2009 differs by gender of the native that suffers the workplace accident. In particular, the effect is larger for men. However, we do not find differences across skill groups of immigrants.

We also look at the heterogeneous effects by the level of severity of the workplace accident. For the period 2004-2009, we find that most of the reduction comes from mild accidents rather than severe accidents. This result indicates that part of the reduction in workplace accidents could be driven by lower reporting of mild accidents due to fears of losing their job as a result of increased pressure to the labor supply that the immigration inflow imposes.

Moreover, we examine the different effects that immigrants' inflow has over the different economic sectors. We show that changes in the share of immigrant population only affect workplace accidents taking place within the construction and services sector between 2004 and 2009. During the same time period, the inflow of immigrants decreased workplace safety for immigrants working in the agriculture sector.

Finally, we do not find any impact over workplace accidents for immigrants during the period 2004 to 2009. Also, during the recession (2010-2015), we estimate a zero effect of outflows of immigrants on workplace safety of both immigrants and nationals.

We believe our results are important in terms of policy implications for developed countries receiving large migration inflows for which the immigration debate has taken a prominent role in the political arena.

References

Altonji, Joseph G and David Card, "The effects of immigration on the labor market outcomes of less-skilled natives," in "Immigration, trade, and the labor market," University of Chicago Press, 1991, pp. 201–234.

Amuedo-Dorantes, Catalina and Sara De la Rica, "Labour market assimilation of recent immigrants in Spain," *British Journal of Industrial Relations*, 2007, *45* (2), 257–284.

_ **and** _ , "Does immigration raise natives income? National and regional evidence from Spain," 2008.

Bauer, Thomas K, Andreas Million, Ralph Rotte, and Klaus F Zimmermann, "Immigration labor and workplace safety," Technical Report, IZA Discussion paper series 1998.

Bertoli, Simone, "Networks, sorting and self-selection of Ecuadorian migrants," *Annals of Economics and Statistics/Annales d'Économie et de Statistique*, 2010, pp. 261–288.

Blanes, Vicente, Francisco Requena, Guadalupe Serrano et al., "Labour market adjustment in the Spanish regions: a first examination to the immigration shock, 1995-2002," Technical Report, Mimeo 2008.

Borjas, George J, "Self-selection and the earnings of immigrants," 1987.

_ , "The economic benefits from immigration," Technical Report, National Bureau of Economic Research 1994.

Card, David, "Immigrant inflows, native outflows, and the local labor market impacts of higher immigration," *Journal of Labor Economics*, 2001, *19* (1), 22–64.

Carrasco, Raquel, Juan F Jimeno, and A Carolina Ortega, "The effect of immigration on the labor market performance of native-born workers: some evidence for Spain," *Journal of Population Economics*, 2008, *21* (3), 627–648.

Farré, Lídia, "New evidence on the healthy immigrant effect," *Journal of Population Economics*, 2016, *29* (2), 365–394.

Friedberg, Rachel M and Jennifer Hunt, "The impact of immigrants on host country wages, employment and growth," *The Journal of Economic Perspectives*, 1995, *9* (2), 23–44.

Giuntella, Osea, Fabrizio Mazzonna, Catia Nicodemo, and Carlos Vargas-Silva, "Immigration and the Reallocation of Work Health Risks," 2016.

Gonzalez, Libertad and Francesc Ortega, "How do very open economies adjust to large immigration flows? Evidence from Spanish regions," *Labour Economics*, 2011, *18* (1), 57–70.

Hanson, Gordon H and Matthew J Slaughter, "Labor-market adjustment in open economies: Evidence from US states," *Journal of international Economics*, 2002, *57* (1), 3–29.

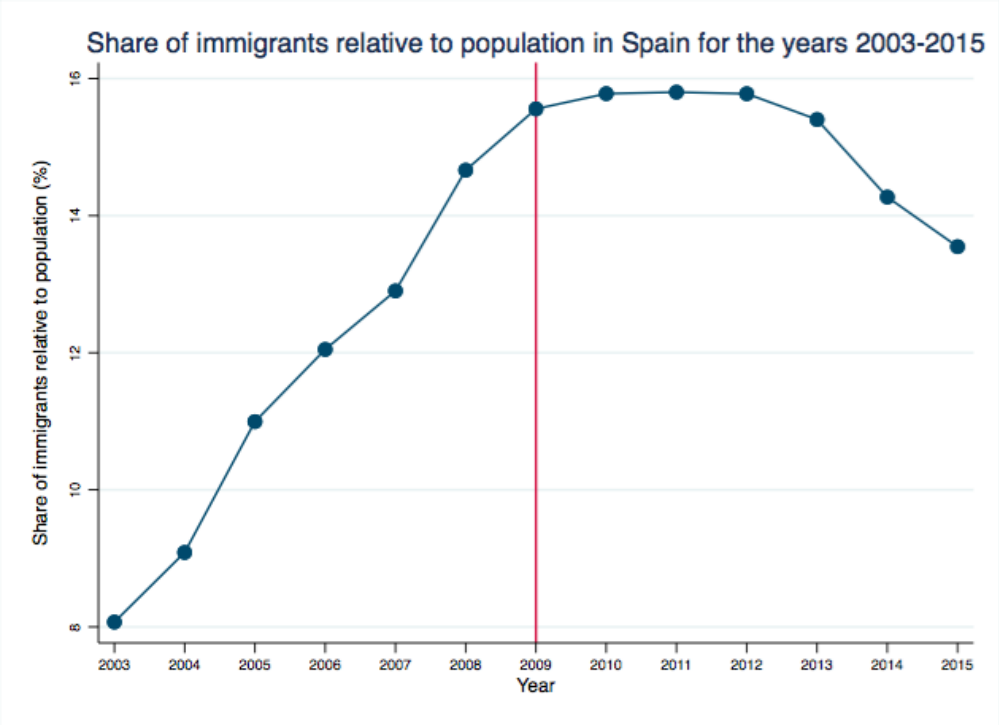
Moraga, Jesús Fernández-Huertas, "New evidence on emigrant selection," 2008.

Moraga, Jesus Fernandez-Huertas, "New evidence on emigrant selection," *The Review of Economics and Statistics*, 2011, *93* (1), 72–96.

Ottaviano, Gianmarco IP and Giovanni Peri, "Rethinking the Gains from Immigration: Theory and Evidence from the US," Technical Report, National Bureau of Economic Research 2005.

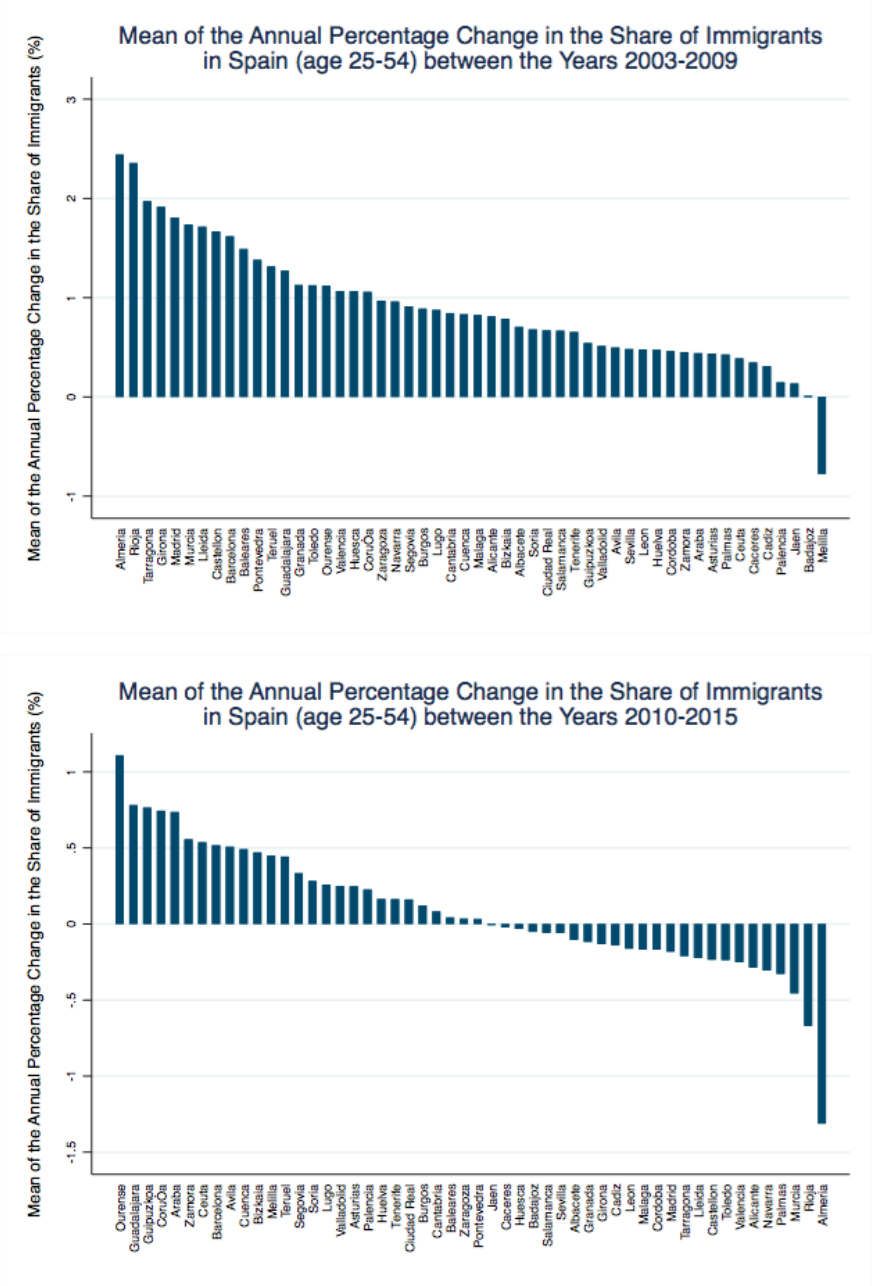
Tables and Figures

Figure 1: Evolution of the Share of Immigrants Relative to the Population (Age 25-54) in Spain (2003-2015)



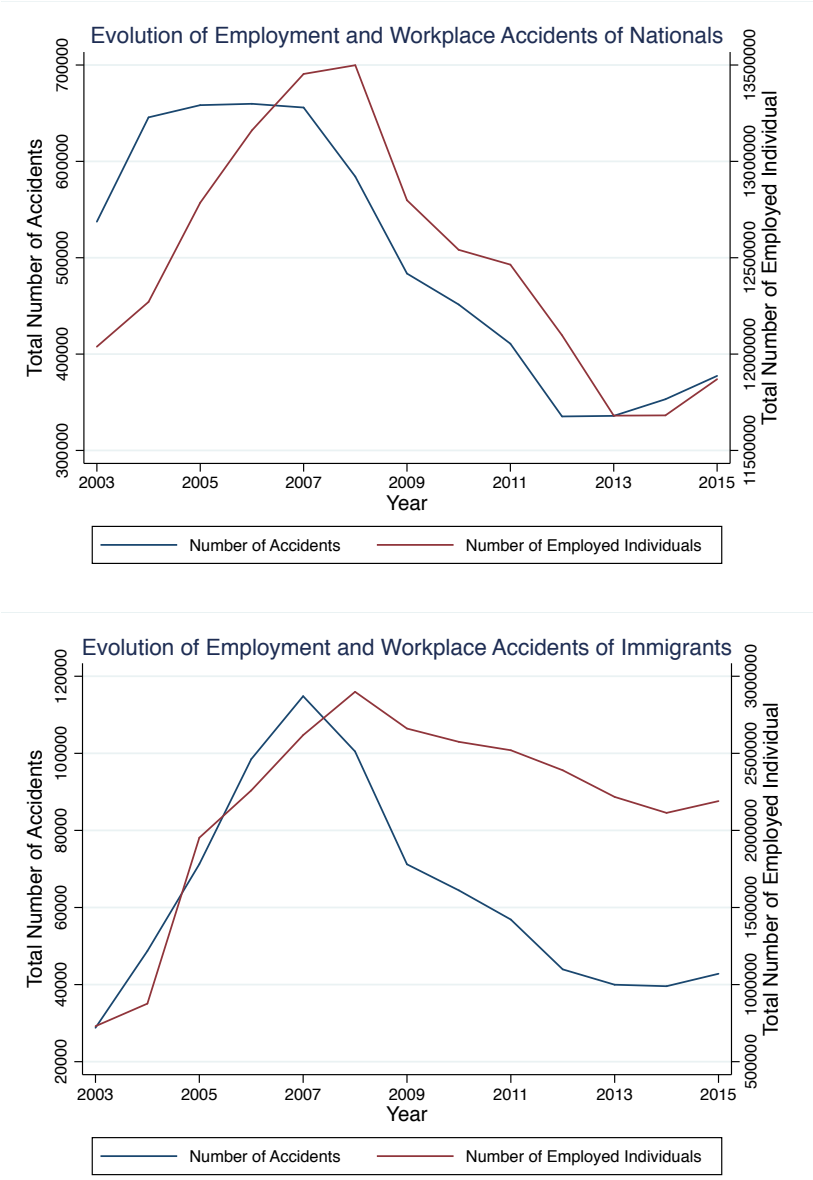
Notes: This graphs represent the share of immigrants relative to the population (aged 25-54) in Spain from 2003 to 2015. *Source*: Spanish Population Census (2003-2015).

Figure 2: Percentage Change in the Share of Immigrants (Age 25-54) Relative to the Population in Spain



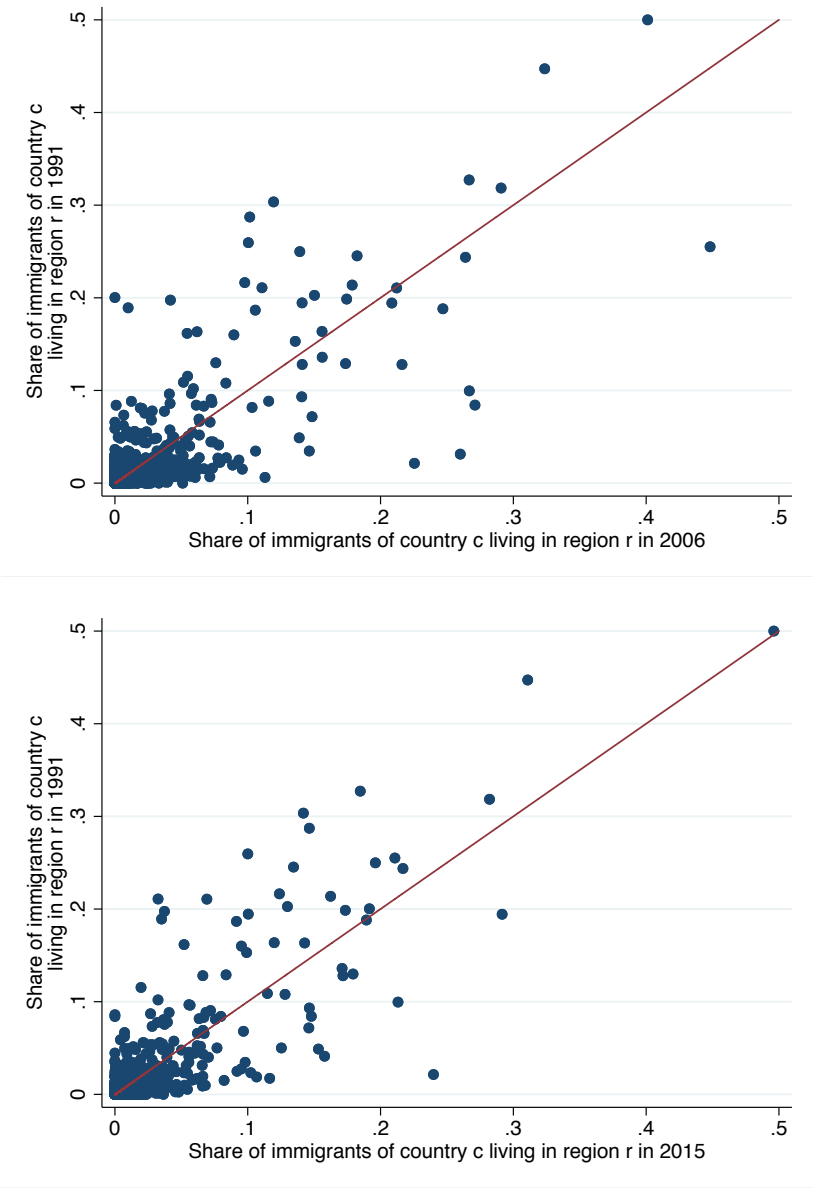
Notes: This graphs represent the mean annual percentage change in the share of immigrants relative to the population (age 25-54) in the 52 provinces of Spain. *Source*: Spanish Population Census (2003-2015).

Figure 3: Evolution of Employment and Workplace Accidents in Spain



Notes: This graphs represent the evolution of total number of employed individuals and the total number of workplace accidents of nationals (graph above) and immigrants (graph below) during the period of 2003 to 2015 in Spain. *Source*: Register of workplace accidents (2003-2015), and Spanish Labor Force Survey (2003-2015).

Figure 4: Correlation between the Distribution of Immigrants among Spanish Provinces in 1991 and 2006 or 2015



Notes: This graphs represent the correlation of the share of immigrants of country c living in province r in 1991 and in 2006 (graph above) or 2015 (graph below). Spanish Labor Force Survey (2006 and 2015), and Census (1991).

Table 1: Descriptive Statistics of Workplace Accidents per Worker

	Period 2003-2009						Period 2010-2015					
	Obs.	Mean	Std. Dev	Min.	Max.	Total	Obs.	Mean	Std. Dev	Min.	Max.	Total
Workplace Accidents per Worker (*100) for Nationals												
Total	364	4.37	1.10	1.94	10.03	1591.62	312	2.89	0.59	1.77	4.84	903.04
Men	364	5.53	1.46	2.08	11.89	2013.52	312	3.57	0.79	1.69	6.34	1114.00
Women	364	2.61	0.72	1.25	6.72	950.68	312	2.04	0.49	1.05	3.51	637.88
Agriculture	354	3.80	2.46	0.00	17.13	1344.80	302	3.99	2.61	0.82	29.30	1205.86
Industry	364	6.70	2.43	1.50	19.48	2437.25	311	4.49	1.91	1.20	21.91	1397.92
Construction	364	11.19	3.48	4.41	20.94	4072.99	311	5.51	2.16	2.23	29.59	1713.06
Servicies	364	2.73	0.76	1.28	6.69	994.89	312	2.34	0.55	1.32	4.16	730.13
Mild	364	4.31	1.09	1.88	9.91	1570.17	312	2.86	0.59	1.75	4.81	893.52
Severe	364	0.06	0.02	0.02	0.16	21.45	312	0.03	0.01	0.00	0.08	9.51
Workplace Accidents per Worker (*100) for Immigrants												
Total	364	4.69	2.83	0.56	19.04	1707.31	312	2.36	1.06	0.56	6.94	736.28
Men	364	7.00	4.69	1.05	36.52	2549.61	312	3.66	2.20	0.82	22.36	1142.94
Women	363	1.87	1.32	0.12	9.21	680.27	312	1.16	0.55	0.27	3.18	360.49
Agriculture	284	6.99	6.99	0.00	51.01	1986.00	264	7.55	7.75	0.56	65.13	1994.07
Industry	341	8.55	13.08	0.00	191.59	2915.66	292	4.47	5.14	0.36	47.07	1306.17
Construction	353	12.04	11.23	1.41	91.40	4248.91	295	5.41	4.37	0.33	24.76	1596.22
Servicies	364	2.43	1.61	0.17	11.09	883.27	312	1.60	1.10	0.43	12.16	498.86
Mild	364	4.61	2.78	0.53	19.04	1679.47	312	2.33	1.05	0.56	6.82	726.11
Severe	364	0.08	0.07	0.00	0.68	27.84	312	0.03	0.03	0.00	0.17	10.16

Notes: This table reports the number of observations, mean, standard deviation, minimum, maximum and total number of workplace accidents per worker (multiplied by 100) for nationals and immigrants collapsed at the province and year level for two time periods: from 2003 to 2009 and 2010 to 2015. *Source*: Register of workplace accidents (2003-2015), and Spanish Labor Force Survey (2003-2015).

Table 2: First Stage Regressions

	Change Immigrant Population $(M(t)_{rge} - M(t-1)_{rge})$											
	2004-2009						2010-2015					
	All (1)	Men (2)	Women (3)	HS Dropouts (4)	HS Graduates (5)	College (6)	All (7)	Men (8)	Women (9)	HS Dropouts (10)	HS Graduates (11)	College (12)
Change Immigrant Pop. $(Z(t)_{erg})$	0.898***						1.170***					
	(0.090)						(0.182)					
Change Immigrant Pop. of Men $(Z(t)_{erg})$		0.957***						1.214***				
		(0.125)						(0.287)				
Change Immigrant Pop. of Women $(Z(t)_{erg})$			0.839***						1.146***			
			(0.129)						(0.251)			
Change Immigrant Pop. of HS Dropouts $(Z(t)_{erg})$				0.854***						1.085***		
				(0.135)						(0.237)		
Change Immigrant Pop. of HS Graduates $(Z(t)_{erg})$					1.167***						0.749	
					(0.128)						(0.567)	
Change Immigrant Pop. of College $(Z(t)_{erg})$						0.685***						1.436***
						(0.112)						(0.382)
Observations	1,872	936	936	624	624	624	1,872	936	936	624	624	624
R-squared	0.631	0.598	0.681	0.633	0.744	0.643	0.262	0.284	0.242	0.363	0.142	0.353
Provincial FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Gender FE	YES	NO	NO	YES	YES	YES	YES	NO	NO	YES	YES	YES
Education FE	YES	YES	YES	NO	NO	NO	YES	YES	YES	NO	NO	NO
F-test	100.1	58.95	42.19	39.92	83.35	37.09	41.32	17.95	20.83	20.94	1.742	14.10
Mean dep. var.	1616	1621	1612	2118	1993	738	1616	-332.1	-109.9	-394.2	-263.4	-5.463
Std. dep. var.	5459	5646	5268	6289	6145	3318	5459	4298	3925	4764	4298	3103

Notes: There are 52 provinces (subscripted r), 2 gender (subscripted g), 3 levels of education (subscripted e), and 12 years (subscripted t). The dependent variable is the annual change in the actual immigration population in an (r,g,e) cell. The main explanatory variable is the annual change in the "imputed" immigration population in an (r,g,e) cell. All specifications include region and year fixed-effects. The weights used are the total population the year before in an (r,g,e) cell. * significant at 10%; ** significant at 5%; *** significant at 1%. *Source*: Spanish Labor Force Survey (2003-2015), and Census (1991).

Table 3: Workplace Accidents of Spanish Workers

	Change Workplace Accidents per Spanish Worker $(\frac{WA(t)_{rg}}{E(t)_{rg}} - \frac{WA(t-1)_{rg}}{E(t-1)_{rg}} * 100,000)$					
	2004-2009			2010-2015		
	All	Men	Women	All	Men	Women
	(1)	(2)	(3)	(4)	(5)	(6)
OLS:						
Change Immigrant Pop. ($Z(t)_{erg}$)	-0.008***			0.003		
	(0.002)			(0.003)		
Change Immigrant Pop. of Men ($Z(t)_{erg}$)		-0.013***			0.002	
		(0.002)			(0.004)	
Change Immigrant Pop. of Women ($Z(t)_{erg}$)			-0.004***			0.000
			(0.001)			(0.001)
IV:						
Change Immigrant Pop. ($Z(t)_{erg}$)	-0.009***			0.002		
	(0.002)			(0.002)		
Change Immigrant Pop. of Men ($Z(t)_{erg}$)		-0.014***			0.002	
		(0.003)			(0.003)	
Change Immigrant Pop. of Women ($Z(t)_{erg}$)			-0.005***			0.000
			(0.002)			(0.001)
Observations	1,872	936	936	1,872	936	936
R-squared	0.484	0.600	0.399	0.616	0.700	0.632
Provincial FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
Gender FE	YES	NO	NO	YES	NO	NO
Education FE	YES	YES	YES	YES	YES	YES
Mean dep. var.	-57.73	-113.3	-2.186	-81.29	-127	-35.57
Std. dep. var.	704.7	873.8	473.3	363.4	445.7	247.9

Notes: There are 52 provinces (subscripted r), 2 gender (subscripted g), 3 levels of education (subscripted e), and 12 years (subscripted t). The dependent variable is the annual change in the number of workplace accidents of Spanish workers in an (r) cell divided by the annual change in the number of Spanish employed individuals in an (r) cell. The main explanatory variable the annual change in the "imputed" immigration population in an (r,g,e) cell. All specifications include region, year, and education fixed-effects. The weights used are the number of national employees in an (r,g,e) cell. * significant at 10%; ** significant at 5%; *** significant at 1%. *Source*: Register of workplace accidents (2003-2015), Spanish Labor Force Survey (2003-2015), and Census (1991).

Table 4: Workplace Accidents of Immigrant Workers

	Change Workplace Accidents per Immigrant Worker $(\frac{WA(t)_{rg}}{E(t)_{rg}} - \frac{WA(t-1)_{rg}}{E(t-1)_{rg}} * 100,000)$					
	2004-2009			2010-2015		
	All	Men	Women	All	Men	Women
	(1)	(2)	(3)	(4)	(5)	(6)
OLS:						
Change Immigrant Pop. ($Z(t)_{erg}$)	0.000			-0.000		
	(0.012)			(0.004)		
Change Immigrant Pop. of Men ($Z(t)_{erg}$)		-0.001			-0.001	
		(0.021)			(0.005)	
Change Immigrant Pop. of Women ($Z(t)_{erg}$)			-0.006			-0.000
			(0.004)			(0.004)
IV:						
Change Immigrant Pop. ($Z(t)_{erg}$)	0.000			-0.000		
	(0.014)			(0.003)		
Change Immigrant Pop. of Men ($Z(t)_{erg}$)		-0.001			-0.001	
		(0.023)			(0.004)	
Change Immigrant Pop. of Women ($Z(t)_{erg}$)			-0.009*			-0.000
			(0.005)			(0.003)
Observations	1,866	936	930	1,872	936	936
R-squared	0.345	0.406	0.499	0.135	0.177	0.215
Provincial FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
Gender FE	YES	NO	NO	YES	NO	NO
Education FE	YES	YES	YES	YES	YES	YES
Mean dep. var.	-190.9	-340.4	-40.44	-166.4	-268.6	-64.27
Std. dep. var.	3326	4551	1147	1701	2356	467.6

Notes: There are 52 provinces (subscripted r), 2 gender (subscripted g), 3 levels of education (subscripted e), and 12 years (subscripted t). The dependent variable is the annual change in the number of workplace accidents of immigrant workers in an (r) cell divided by the annual change in the number of immigrant employed individuals in an (r) cell. The main explanatory variable the annual change in the "imputed" immigration population in an (r,g,e) cell. All specifications include region, year, and education fixed-effects. The weights used are the number of immigrant employees in an (r,g,e) cell. * significant at 10%; ** significant at 5%; *** significant at 1%. *Source*: Register of workplace accidents (2003-2015), Spanish Labor Force Survey (2003-2015), and Census (1991).

Table 5: Workplace Accidents of Spanish Workers by the Level of Education of the Immigrants

	Change Workplace Accidents Per Spanish Worker ($\frac{WA(t)_{rg}}{E(t)_{rg}} - \frac{WA(t-1)_{rg}}{E(t-1)_{rg}} * 100,000$)					
	2004-2009	2010-2015	2004-2009	2010-2015	2004-2009	2010-2015
	(1)	(2)	(3)	(4)	(5)	(6)
OLS:						
Change Immigrant Pop. of HS Dropouts ($Z(t)_{erg}$)	-0.009***	0.001				
	(0.003)	(0.004)				
Change Immigrant Pop. of HS Gradutes ($Z(t)_{erg}$)			-0.012***	0.013**		
			(0.004)	(0.005)	)	
Change Immigrant Pop. of College ($Z(t)_{erg}$)					-0.015***	0.002
					(0.004)	(0.005)
IV:						
Change Immigrant Pop. of HS Dropouts ($Z(t)_{erg}$)	-0.010***	0.001				
	(0.004)	(0.003)				
Change Immigrant Pop. of HS Graduates ($Z(t)_{erg}$)			-0.010***	0.019		
			(0.003)	(0.017)		
Change Immigrant Pop. of College ($Z(t)_{erg}$)					-0.021***	0.001
					(0.007)	(0.003)
Observations	624	624	624	624	624	624
R-squared	0.481	0.612	0.489	0.459	0.462	0.615
Provincial FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
Gender FE	YES	YES	YES	YES	YES	YES
Mean dep. var.	-57.73	-81.29	-57.73	-81.29	-57.73	-81.29
Std. dep. var.	705.1	363.6	705.1	363.6	705.1	363.6

Notes: There are 52 provinces (subscripted r), 2 gender (subscripted g), 3 levels of education (subscripted e), and 12 years (subscripted t). The dependent variable is the annual change in the number of workplace accidents of Spanish workers in an (r) cell divided by the annual change in the number of Spanish employed individuals in an (r) cell. The main explanatory variable the annual change in the "imputed" immigration population in an (r,g,e) cell. All specifications include region, year, and gender fixed-effects. The weights used are the number of national employees in an (r,g,e) cell. * significant at 10%; ** significant at 5%; *** significant at 1%. *Source*: Register of workplace accidents (2003-2015), Spanish Labor Force Survey (2003-2015), and Census (1991).

Table 6: Workplace Accidents of Immigrant Workers by the Level of Education of the Immigrants

	Change Workplace Accidents Per Immigrant Worker ($\frac{WA(t)_{rg}}{E(t)_{rg}} - \frac{WA(t-1)_{rg}}{E(t-1)_{rg}} * 100,000$)					
	2004-2009	2010-2015	2004-2009	2010-2015	2004-2009	2010-2015
	(1)	(2)	(3)	(4)	(5)	(6)
OLS:						
Change Immigrant Pop. of HS Dropouts ($Z(t)_{erg}$)	0.006	0.001				
	(0.022)	(0.005)				
Change Immigrant Pop. of HS Gradutes ($Z(t)_{erg}$)			-0.005	-0.000		
			(0.022)	(0.011)		
Change Immigrant Pop. of College ($Z(t)_{erg}$)					-0.001	-0.005
					(0.029)	(0.010)
IV:						
Change Immigrant Pop. of HS Dropouts ($Z(t)_{erg}$)	0.008	0.001				
	(0.028)	(0.005)				
Change Immigrant Pop. of HS Graduates ($Z(t)_{erg}$)			-0.005	-0.000		
			(0.019)	(0.011)		
Change Immigrant Pop. of College ($Z(t)_{erg}$)					-0.001	-0.003
					(0.043)	(0.006)
Observations	622	624	622	624	622	624
R-squared	0.330	0.131	0.348	0.136	0.346	0.139
Provincial FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
Gender FE	YES	YES	YES	YES	YES	YES
Mean dep. var.	-190.9	-166.4	-190.9	-166.4	-190.9	-166.4
Std. dep. var.	3328	1702	3328	1702	3328	1702

Notes: There are 52 provinces (subscripted r), 2 gender (subscripted g), 3 levels of education (subscripted e), and 12 years (subscripted t). The dependent variable is the annual change in the number of workplace accidents of immigrant workers in an (r) cell divided by the annual change in the number of immigrant employed individuals in an (r) cell. The main explanatory variable the annual change in the "imputed" immigration population in an (r,g,e) cell. All specifications include region, year, and gender fixed-effects. The weights used are the number of immigrant employees in an (r,g,e) cell. * significant at 10%; ** significant at 5%; *** significant at 1%. *Source*: Register of workplace accidents (2003-2015), Spanish Labor Force Survey (2003-2015), and Census (1991).

Table 7: Workplace Accidents of Spanish Workers by Level of Severity

	Change Workplace Accidents per Spanish Worker $(\frac{WA(t)_{rgs}}{E(t)_{rg}} - \frac{WA(t-1)_{rgs}}{E(t-1)_{rg}} * 100,000)$			
	Mild		Severe	
	2004-2009	2010-2015	2004-2009	2010-2015
	(1)	(2)	(3)	(4)
OLS:				
Change Immigrant Pop. $(Z(t)_{erg})$	-0.008***	0.003	-0.000***	0.000
	(0.002)	(0.002)	(0.000)	(0.000)
IV:				
Change Immigrant Pop. $(Z(t)_{erg})$	-0.009***	0.002	-0.000***	0.000
	(0.002)	(0.002)	(0.000)	(0.000)
Observations	1,872	1,872	1,872	1,872
R-squared	0.484	0.618	0.266	0.067
Provincial FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Gender FE	YES	YES	YES	YES
Education FE	YES	YES	YES	YES
Mean dep. var.	-53.23	-80.02	-4.499	-1.263
Std. dep. var.	697.2	360.7	16.80	12.44

Notes: There are 52 provinces (subscripted r), 2 gender (subscripted g), 3 levels of education (subscripted e), 12 years (subscripted t), and 2 levels of severity (subscripted s). The dependent variable is the annual change in the number of workplace accidents of Spanish workers in an (r, s) cell divided by the annual change in the number of Spanish employed individuals in an (r) cell. The main explanatory variable the annual change in the "imputed" immigration population in an (r,g,e) cell. All specifications include region, year, gender, and education fixed-effects. The weights used are the number of national employees in an (r,g, e) cell. * significant at 10%; ** significant at 5%; *** significant at 1%. *Source*: Register of workplace accidents (2003-2015), Spanish Labor Force Survey (2003-2015), and Census (1991).

Table 8: Workplace Accidents of Immigrant Workers by Level of Severity

	Change Workplace Accidents per Immigrant Worker $(\frac{WA(t)_{rgs}}{E(t)_{rg}} - \frac{WA(t-1)_{rgs}}{E(t-1)_{rg}} * 100,000)$			
	Mild		Severe	
	2004-2009	2010-2015	2004-2009	2010-2015
	(1)	(2)	(3)	(4)
OLS:				
Change Immigrant Pop. $(Z(t)_{erg})$	0.000	-0.000	0.000	-0.000
	(0.012)	(0.004)	(0.000)	(0.000)
IV:				
Change Immigrant Pop. $(Z(t)_{erg})$	0.000	-0.000	0.000	-0.000
	(0.014)	(0.003)	(0.000)	(0.000)
Observations	1,866	1,872	1,866	1,872
R-squared	0.347	0.135	0.161	0.052
Provincial FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Gender FE	YES	YES	YES	YES
Education FE	YES	YES	YES	YES
Mean dep. var.	-182.8	-163	-8.121	-3.463
Std. dep. var.	3264	1675	108	49.14

Notes: There are 52 provinces (subscripted r), 2 gender (subscripted g), 3 levels of education (subscripted e), 12 years (subscripted t), and 2 levels of severity (subscripted s). The dependent variable is the annual change in the number of workplace accidents of immigrant workers in an (r, s) cell divided by the annual change in the number of immigrant employed individuals in an (r) cell. The main explanatory variable the annual change in the "imputed" immigration population in an (r,g,e) cell. All specifications include region, year, gender, and education fixed-effects. The weights used are the number of immigrant employees in an (r,g,e) cell. * significant at 10%; ** significant at 5%; *** significant at 1%. *Source*: Register of workplace accidents (2003-2015), Spanish Labor Force Survey (2003-2015), and Census (1991).

Table 9: Workplace Accidents of Spanish Workers by Economic Activity

	Change Workplace Accidents per Spain-born Worker ($\frac{WA(t)_{rga}}{E(t)_{rga}} - \frac{WA(t-1)_{rga}}{E(t-1)_{rga}} * 100,000$)							
	Agriculture		Industry		Construction		Services	
	2004-2009	2010-2015	2004-2009	2010-2015	2004-2009	2010-2015	2004-2009	2010-2015
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
OLS:								
Change Immigrant Pop. ($Z(t)_{erg}$)	-0.014	-0.073	-0.000	-0.003	-0.035*	0.048	-0.008***	0.001
	(0.021)	(0.073)	(0.005)	(0.006)	(0.018)	(0.029)	(0.002)	(0.003)
IV:								
Change Immigrant Pop. ($Z(t)_{erg}$)	-0.016	-0.076	-0.000	-0.003	-0.039*	0.039	-0.009***	0.001
	(0.024)	(0.078)	(0.005)	(0.005)	(0.021)	(0.024)	(0.002)	(0.003)
Observations	1,872	1,872	1,872	1,872	1,872	1,872	1,872	1,872
R-squared	0.133	0.080	0.298	0.314	0.206	0.176	0.326	0.502
Provincial FE	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES	YES
Gender FE	YES	YES	YES	YES	YES	YES	YES	YES
Mean dep. var.	65.88	-13	-126.1	-109.2	-1798	-217.8	44.87	-30.23
Std. dep. var.	3068	2535	2144	1543	18727	2714	487.3	329.8

Notes: There are 52 provinces (subscripted r), 2 gender (subscripted g), 3 levels of education (subscripted e), 12 years (subscripted t), and 4 economic activities (subscripted a). The dependent variable is the annual change in the number of workplace accidents of Spanish workers in an (r,a) cell divided by the annual change in the number of Spanish employed individuals in an (r,a) cell. The main explanatory variable the annual change in the "imputed" immigration population in an (r,g,e) cell divided by the total population the year before in an (r,g,e) cell. All specifications include region, year, gender, and education fixed-effects. The weights used are the number of national employees in an (r,a) cell. * significant at 10%; ** significant at 5%; *** significant at 1%. *Source*: Register of workplace accidents (2003-2015), Spanish Labor Force Survey (2003-2015), and Census (1991).

Table 10: Workplace Accidents of Immigrant Workers by Economic Activity

	Change Workplace Accidents per Immigrant Worker ($\frac{WA(t)_{rga}}{E(t)_{rga}} - \frac{WA(t-1)_{rga}}{E(t-1)_{rga}} * 100,000$)							
	Agriculture		Industry		Construction		Services	
	2004-2009	2010-2015	2004-2009	2010-2015	2004-2009	2010-2015	2004-2009	2010-2015
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
OLS:								
Change Immigrant Pop. ($Z(t)_{erg}$)	0.080**	-0.103	0.015	0.000	-0.043	0.020	0.005	-0.005
	(0.036)	(0.130)	(0.044)	(0.018)	(0.035)	(0.017)	(0.005)	(0.003)
IV:								
Change Immigrant Pop. ($Z(t)_{erg}$)	0.104**	-0.095	0.016	0.000	-0.050	0.017	0.006	-0.004
	(0.047)	(0.123)	(0.049)	(0.015)	(0.040)	(0.015)	(0.007)	(0.003)
Observations	1,872	1,872	1,872	1,872	1,872	1,872	1,872	1,872
R-squared	0.159	0.077	0.187	0.122	0.262	0.164	0.217	0.108
Provincial FE	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES	YES
Gender FE	YES	YES	YES	YES	YES	YES	YES	YES
Mean dep. var.	199.1	145.9	175.5	-435.4	-269.9	-189.5	-54.40	-136.8
Std. dep. var.	7379	7184	12885	6975	10771	4254	3544	1703

Notes: There are 52 provinces (subscripted r), 2 gender (subscripted g), 3 levels of education (subscripted e), 12 years (subscripted t), and 4 economic activities (subscripted a). The dependent variable is the annual change in the number of workplace accidents of immigrants workers in an (r,a) cell divided by the annual change in the number of immigrants employed individuals in an (r,a) cell. The main explanatory variable the annual change in the "imputed" immigration population in an (r,g,e) cell divided by the total population the year before in an (r,g,e) cell. All specifications include region, year, gender, and education fixed-effects. The weights used are the number of national employees in an (r,a) cell. * significant at 10%; ** significant at 5%; *** significant at 1%. *Source*: Register of workplace accidents (2003-2015), Spanish Labor Force Survey (2003-2015), and Census (1991).

Table 11: Employment of National Individuals between 2004 and 2009

	Change in Total Number of Spain-born Workers ($\frac{E(t)_{rgea}}{Pop(t)_{rge}} - \frac{E(t-1)_{rgea}}{Pop(t-1)_{rge}}$)						
	All (1)	Men (2)	Women (3)	Agriculture (4)	Industry (5)	Construction (6)	Servicies (7)
OLS:							
Change Immigrant Pop. ($Z(t)_{erg}$)	0.001			-0.005	0.001	-0.004	0.013
	(0.007)			(0.006)	(0.015)	(0.012)	(0.021)
Change Immigrant Pop. of Men ($Z(t)_{erg}$)		-0.001					
		(0.012)					
Change Immigrant Pop. of Women ($Z(t)_{erg}$)			0.002				
			(0.009)				
IV:							
Change Immigrant Pop. ($Z(t)_{erg}$)	0.001			-0.006	0.001	-0.004	0.014
	(0.008)			(0.007)	(0.017)	(0.013)	(0.023)
Change Immigrant Pop. of Men ($Z(t)_{erg}$)		-0.001					
		(0.012)					
Change Immigrant Pop. of Women ($Z(t)_{erg}$)			0.003				
			(0.010)				
Observations	7,488	3,744	3,744	1,872	1,872	1,872	1,872
R-squared	0.068	0.058	0.091	0.036	0.063	0.131	0.072
Provincial FE	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES
Gender FE	YES	NO	NO	YES	YES	YES	YES
Education FE	YES	YES	YES	YES	YES	YES	YES
Activity FE	YES	YES	YES	NO	NO	NO	NO
Mean dep. var.	118	-128.7	364.7	-98.02	-74.48	-100.2	744.8
Std. dep. var.	3924	4294	3499	2302	3688	2977	5773

Notes: There are 52 provinces (subscripted r), 2 gender (subscripted g), 3 levels of education (subscripted e), 6 years (subscripted t), and 4 economic activities (subscripted a). The dependent variable is the annual change in the total number of Spanish workers in an (r,a, g,e) cell divided by the number of immigrants in an (r,g,e) cell. The main explanatory variable the annual change in the "imputed" immigration population in an (r,g,e) cell divided by the total population the year before in an (r,g,e) cell. All specifications include region, year, gender, and education fixed-effects. The weights used are the total population the year before in an (r,g,e) cell. * significant at 10%; ** significant at 5%; *** significant at 1%. *Source*: Spanish Labor Force Survey (2003-2009), and Census (1991).

Table 12: Employment of Immigrant Individuals between 2004 and 2009

	Change in Total Number of Immigrant Workers ($\frac{E(t)_{rgea}}{Pop(t)_{rge}} - \frac{E(t-1)_{rgea}}{Pop(t-1)_{rge}}$)						
	All (1)	Men (2)	Women (3)	Agriculture (4)	Industry (5)	Construction (6)	Servicies (7)
OLS:							
Change Immigrant Pop. ($Z(t)_{erg}$)	0.005			0.049**	-0.012	0.044	-0.060
	(0.035)			(0.021)	(0.062)	(0.066)	(0.092)
Change Immigrant Pop. of Men ($Z(t)_{erg}$)		-0.006					
		(0.065)					
Change Immigrant Pop. of Women ($Z(t)_{erg}$)			0.013				
			(0.026)				
IV:							
Change Immigrant Pop. ($Z(t)_{erg}$)	0.006			0.054**	-0.013	0.049	-0.067
	(0.039)			(0.023)	(0.068)	(0.072)	(0.100)
Change Immigrant Pop. of Men ($Z(t)_{erg}$)		-0.006					
		(0.068)					
Change Immigrant Pop. of Women ($Z(t)_{erg}$)			0.016				
			(0.031)				
Observations	7,488	3,744	3,744	1,872	1,872	1,872	1,872
R-squared	0.009	0.010	0.012	0.022	0.011	0.069	0.021
Provincial FE	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES
Gender FE	YES	NO	NO	YES	YES	YES	YES
Education FE	YES	YES	YES	YES	YES	YES	YES
Activity FE	YES	YES	YES	NO	NO	NO	NO
Mean dep. var.	-55.26	-264.3	147.2	-79.83	-450	-134.4	443.1
Std. dep. var.	18301	21731	14211	11108	17406	15470	25965

Notes: There are 52 provinces (subscripted r), 2 gender (subscripted g), 3 levels of education (subscripted e), 6 years (subscripted t), and 4 economic activities (subscripted a). The dependent variable is the annual change in the total number of immigrant workers in an (r,a, g,e) cell divided by the number of immigrants in an (r,g,e) cell. The main explanatory variable the annual change in the "imputed" immigration population in an (r,g,e) cell divided by the total population the year before in an (r,g,e) cell. All specifications include region, year, gender, and education fixed-effects. The weights used are the total population the year before in an (r,g,e) cell. * significant at 10%; ** significant at 5%; *** significant at 1%. *Source*: Spanish Labor Force Survey (2003-2009), and Census (1991).

Table 13: Employment of National Individuals between 2004 and 2009 by Type of Occupation

	Change in Total Number of Spain-born Workers ($\frac{E(t)_{rgo}}{Pop(t)_{rg}} - \frac{E(t-1)_{rgo}}{Pop(t-1)_{rg}} * 100,000$)								
	High Rank Armed Forces (1)	Low-Med Rank Armed Forces (2)	Public adm. or. >10 workers (3)	Manag. with with <10 workers (4)	Professionals (5)	Technicians and associate professionals (6)	Administrative type employees (7)	Catering, personal, protection and sellers (8)	Workers in Agriculture (9)
OLS:									
Change Immigrant Pop. ($Z(t)_{erg}$)	0.000	-0.003**	-0.009	0.006*	-0.004	0.018**	-0.000	-0.003	0.002
	(0.001)	(0.001)	(0.006)	(0.003)	(0.008)	(0.008)	(0.004)	(0.004)	(0.002)
IV:									
Change Immigrant Pop. ($Z(t)_{erg}$)	0.000	-0.003**	-0.009	0.006*	-0.004	0.019**	-0.000	-0.003	0.002
	(0.001)	(0.001)	(0.006)	(0.003)	(0.007)	(0.008)	(0.004)	(0.004)	(0.002)
Observations	624	624	624	624	624	624	624	624	624
R-squared	0.066	0.119	0.068	0.064	0.082	0.153	0.156	0.087	0.045
Provincial FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Gender FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Mean dep. var.	3.592	90.84	58.28	-41.78	205	360.2	145.6	409.2	-87.13
Std. dep. var.	133.9	1148	774.3	1482	1928	1918	1727	2095	1006

	Change in Total Number of Spain-born Workers ($\frac{E(t)_{rgo}}{Pop(t)_{rg}} - \frac{E(t-1)_{rgo}}{Pop(t-1)_{rg}} * 100,000$)							
	Workers in agrarian, farming and fishing (10)	Project managers and team leaders (11)	Construction workers (12)	Workers in the metallurgy, machine construction and ass. (13)	Workers of the extractive industry (14)	Operators and assemblers (15)	Domestic employees (16)	Other non-qualified workers (17)
OLS:								
Change Immigrant Pop. ($Z(t)_{erg}$)	-0.004***	0.002**	-0.005	0.004	-0.001*	0.000	-0.009**	0.001
	(0.001)	(0.001)	(0.004)	(0.003)	(0.000)	(0.005)	(0.004)	(0.003)
IV:								
Change Immigrant Pop. ($Z(t)_{erg}$)	-0.004***	0.002**	-0.005	0.004	-0.001*	0.000	-0.009**	0.001
	(0.001)	(0.001)	(0.004)	(0.003)	(0.000)	(0.005)	(0.004)	(0.003)
Observations	624	624	624	624	624	624	624	624
R-squared	0.027	0.029	0.136	0.075	0.052	0.126	0.082	0.055
Provincial FE	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES	YES
Gender FE	YES	YES	YES	YES	YES	YES	YES	YES
Mean dep. var.	-55.29	7.312	-183.5	-73.88	-16.21	-55.58	27.06	-130.3
Std. dep. var.	1037	463.4	1673	1380	311.8	1783	1209	1717

Notes: There are 52 provinces (subscripted r), 2 gender (subscripted g), 6 years (subscripted t), and 17 types of occupations (subscripted o). The dependent variable is the annual change in the total number of Spanish workers in an (r,g,o) cell divided by the number of immigrants in an (r,g) cell. The main explanatory variable the annual change in the "imputed" immigration population in an (r,g) cell divided by the total population the year before in an (r,g) cell. All specifications include region, year, and gender fixed-effects. The weights used are the total population the year before in an (r,g) cell. * significant at 10%; ** significant at 5%; *** significant at 1%. *Source*: Spanish Labor Force Survey (2003-2009), and Census (1991).

Table 14: Employment of Immigrant Individuals between 2004 and 2009 by Type of Occupation

	Change in Total Number of Immigrant Workers ($\frac{E(t)_{rgo}}{Pop(t)_{rg}} - \frac{E(t-1)_{rgo}}{Pop(t-1)_{rg}} * 100,000$)								
	High Rank Armed Forces (1)	Low-Med Rank Armed Forces (2)	Public adm. or. >10 workers (3)	Manag. with with <10 workers (4)	Professionals (5)	Technicians and associate professionals (6)	Administrative type employees (7)	Catering, personal, protection and sellers (8)	Workers in Agriculture (9)
OLS:									
Change Immigrant Pop. ($Z(t)_{erg}$)	0.000	-0.001	0.006	0.014*	-0.007	-0.014	-0.012	0.038**	0.010*
	(0.000)	(0.001)	(0.006)	(0.008)	(0.016)	(0.016)	(0.014)	(0.015)	(0.006)
IV:									
Change Immigrant Pop. ($Z(t)_{erg}$)	0.000	-0.001	0.006	0.014*	-0.007	-0.014	-0.012	0.038**	0.010*
	(0.000)	(0.001)	(0.006)	(0.008)	(0.015)	(0.016)	(0.013)	(0.015)	(0.005)
Observations	624	624	624	624	624	624	624	624	624
R-squared	0.003	0.073	0.034	0.044	0.052	0.035	0.058	0.027	0.024
Provincial FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Gender FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Mean dep. var.	-4.89e-08	83.01	-42.78	-233.3	-388	-102.6	-205	550.6	-13.31
Std. dep. var.	414.7	1360	2003	5220	5507	5361	3621	8820	2685

	Change in Total Number of Immigrant Workers ($\frac{E(t)_{rgo}}{Pop(t)_{rg}} - \frac{E(t-1)_{rgo}}{Pop(t-1)_{rg}} * 100,000$)							
	Workers in agrarian, farming and fishing (10)	Project managers and team leaders (11)	Construction workers (12)	Workers in the metallurgy, machine construction and ass. (13)	Workers of the extractive industry (14)	Operators and assemblers (15)	Domestic employees (16)	Other non-qualified workers (17)
OLS:								
Change Immigrant Pop. ($Z(t)_{erg}$)	-0.003	0.005	-0.014	0.002	0.002	-0.015	-0.013	0.036
	(0.004)	(0.004)	(0.021)	(0.012)	(0.002)	(0.021)	(0.022)	(0.028)
IV:								
Change Immigrant Pop. ($Z(t)_{erg}$)	-0.003	0.005	-0.014	0.002	0.002	-0.015	-0.013	0.036
	(0.004)	(0.004)	(0.021)	(0.012)	(0.002)	(0.020)	(0.021)	(0.028)
Observations	624	624	624	624	624	624	624	624
R-squared	0.018	0.012	0.106	0.021	0.022	0.026	0.057	0.040
Provincial FE	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES	YES
Gender FE	YES	YES	YES	YES	YES	YES	YES	YES
Mean dep. var.	-129.4	14.99	174.8	-124.4	-15.70	-52.47	351.2	-222.4
Std. dep. var.	4398	1536	9048	6557	2030	8230	7634	11482

Notes: There are 52 provinces (subscripted r), 2 gender (subscripted g), 6 years (subscripted t), and 17 types of occupations (subscripted o). The dependent variable is the annual change in the total number of immigrant workers in an (r,g,o) cell divided by the number of immigrants in an (r,g) cell. The main explanatory variable the annual change in the "imputed" immigration population in an (r,g) cell divided by the total population the year before in an (r,g) cell. All specifications include region, year, and gender fixed-effects. The weights used are the total population the year before in an (r,g) cell. * significant at 10%; ** significant at 5%; *** significant at 1%. *Source*: Spanish Labor Force Survey (2003-2009), and Census (1991).