I Z A Institute
of Labor Economics
Initiated by Deutsche Post Foundation

DISCUSSION PAPER SERIES

IZA DP No. 10805

Less Welfare or Fewer Foreigners? Immigrant Inflows and Public Opinion towards Redistribution and Migration Policy

Elie Murard

MAY 2017

I Z A Institute
of Labor Economics

Initiated by Deutsche Post Foundation

DISCUSSION PAPER SERIES

IZA DP No. 10805

Less Welfare or Fewer Foreigners? Immigrant Inflows and Public Opinion towards Redistribution and Migration Policy

Elie Murard
IZA

MAY 2017

IZA – Institute of Labor Economics

Schaumburg-Lippe-Straße 5–9
53113 Bonn, Germany

Phone: +49-228-3894-0
Email: publications@iza.org

www.iza.org

ABSTRACT

Less Welfare or Fewer Foreigners? Immigrant Inflows and Public Opinion towards Redistribution and Migration Policy

I examine the effect of immigrant inflows in Europe on natives' individual attitudes towards redistribution and immigration policy over the last decade. Unlike previous studies, I analyze the evolution over time of these two types of attitudes in a joint empirical framework. Using migration data at the NUTS regional level from the European Labor Force Survey and individual attitudes data from the European Social Survey, I exploit variation over time and across regions in the size and composition of immigrant inflows. I address the endogeneity of immigrant inflows by using a shift share instrument and within-country specification. I find evidence coherent with a theoretical model in which individual attitudes depend essentially on how immigration is perceived to affect wages and net welfare benefits. Specifically, I find that, when immigrants tend to compete with natives for jobs (due to having similar skills or occupations), natives prefer policies that support welfare and put restrictions on migration. When migrants are mostly low-skilled (high-skilled), European citizens typically favor lower (higher) levels of redistribution.

JEL Classification: F22, F1, J61

Keywords: immigration, welfare state, political economy

Corresponding author:
Elie Murard
IZA
Schaumburg-Lippe-Str. 5-9
53113 Bonn
Germany

E-mail: murard@iza.org

1 Introduction

In a provocative statement, the Nobel laureate Milton Friedman argues : "It is one thing to have free immigration for jobs, it is another thing to have free immigration to welfare. And you cannot have both." (Friedman, YouTube). That is, "a generous welfare state would be under constant attack by the many immigrants yearning for its benefits. Under such a growing burden, sooner or later a political coalition would be formed which will either curtail the generosity of the state or restrict immigration, or both." (Razin et al., 2011)

Recent evidence suggests that such tension between migration and the national welfare state is not entirely hypothetical. [1] Negative perceptions about migrants in Europe seem to be importantly driven by the fear that foreigners represent a net fiscal burden (Dustmann and Preston, 2006, 2007; Boeri, 2010). These concerns about the fiscal cost of immigrants, especially unskilled, may have translated into the implementation of restrictive and selective immigration policies in the EU during the 2000s (Razin and Wahba, 2015). [2] Despite more control at the border, the fear of a "fiscal leakage effect" diverting public revenues from native tax payers to foreign welfare recipients may have led to a lower level of redistribution than would have been the case with no immigration (Razin et al., 2002). Other studies indicate that immigration in Europe may have depressed public spending in education (Speciale, 2012) and in municipal social services (Jofre-Monseny et al., 2013a).

In this paper, I explore how individual attitudes towards redistribution and immigration policies have changed over the last decade in Europe, the Continent with the largest social policy programmes. Analyzing attitudes is important because voters' preferences are certainly the primary political-economy force in democracies, and a crucial determinant of migration policy outcomes in particular (Facchini and Mayda, 2008). Increasing concerns of public opinion about the economic effects of immigration may tempt governments, in the midst of the recession, to further tighten migration policies, or to cut down on the generosity of the Welfare State.

I aim at understanding how natives' opinions towards immigration and redistribution policies may be affected by the impacts – real or perceived – of immigrant inflows on the economy. I formalize and extend the theoretical framework sketched in Facchini et al. (2016). In this model, migrants can be skilled or unskilled and the two important economic factor shaping people's opinion are the perceived impact on the host labor market and on the welfare state. Unskilled migration may be typically seen as depressing unskilled wages and boosting skilled wages, the opposite being true with skilled immigration. Unskilled migrants may also be viewed as a net fiscal burden because they consume more in social benefits than they pay in taxes. In the opposite, skilled migrants may be perceived as net fiscal contributors. Importantly, the ways in which immigrants inflows may affect natives' attitudes do not necessarily reflect their actual impact on the economy but rather natives' perceptions on these potential impacts.

Attitudes towards immigration policy depend on how natives think that immigrants affect their net

1. This tension has been underlined in political science as well by Freeman (1986).

2. Policies favoring skilled migrants –mainly within the EU border – and discouraging unskilled immigrants – mainly from non-EU countries. More specifically, the EU has implemented more restrictions for non-EU nationals and a lifting of internal borders (2004 and 2007 EU enlargements), as well as active programs to promote the recruitment of skilled workers (SOPEMI 2005).

income after taxes and transfers. Unskilled natives probably oppose unskilled immigration because of the perceived negative effects on their wages and on their welfare benefits. Conversely, they likely favor skilled immigration for the symmetric reasons. Skilled natives may however feel ambivalent about either type of migrants. On the one hand, they benefit from unskilled immigration through labor market complementary. On the other, they may fear of having to finance the welfare benefits of unskilled migrants. Similarly, they may think that skilled immigrants alleviate their fiscal burden but also compete with them for the same jobs.

Attitudes towards redistribution depend on how natives think that immigration affects their relative position vis-a-vis the Welfare State. If they think that immigration decreases (increases) their gross wage, then they will be more (less) favorable to greater redistribution, since they are more (less) likely to be on the receiving end of the welfare state. Skilled natives probably prefer lower levels of redistribution when low-skilled immigrants are coming in, because of upward pressure on their wages and a higher tax burden. Conversely, they may favor more redistribution in response to skilled immigration. Attitudes of unskilled natives towards redistribution may be ambiguous. When unskilled immigrants are coming in, unskilled natives may favor higher transfers to be compensated for tighter competition in the labor market. On the other hand, unskilled migration causes a "fiscal leakage" reducing their net welfare benefits, which may lower their support for redistribution. When skilled immigrants are coming in, unskilled natives are less dependent on welfare because their wages tend to increase, but their net welfare benefits are higher because of the net fiscal contribution of skilled immigrants.

I empirically assess these predictions by using individual-level data on subjective opinions from the European Social Survey (ESS). I construct measures of immigrant inflows by skill level at the NUTS-1 European regional level drawing on the European Labor Force Survey (ELFS). I merge the two datasets and exploit variation in immigrant inflows across regions and over time during the period 2002-2012. Specifically, I estimate different effects of immigrant inflows on natives' attitudes depending on the skill level of migrants and on the skill level of natives. I address the problem of endogeneity of immigrant inflows in two ways. First, I use an instrumental variable exploiting past settlement of immigrants by country of origin. Second, I use a specification in which the impacts of immigrant inflows are estimated only from variation (over time) in natives' attitudes that happen across regions within the same country.

I find that natives, either skilled or unskilled, support more redistribution when skilled immigrants are coming in, but favor less redistribution when unskilled immigrants are coming in. When unskilled immigration increases, low-skilled natives oppose more immigration while high-skilled natives tend to oppose less. Conversely, when skilled immigration increases, high-skilled natives resist more immigration while low-skilled natives' resistance remains the same or even declines. Taken together, these results provide strong evidence supporting the role of both welfare concerns and labor market concerns in determining individuals attitudes towards redistribution and immigration policy. They also suggest that labor market concerns may outweigh welfare concerns in determining the attitudes towards immigration of skilled workers.They also indicate that welfare concerns may dominate labor market concerns in shaping the preferences for redistribution of unskilled tax payers.

I contribute to two different strands of the literature. The first literature examines the determinants of individual attitudes towards immigration – see Scheve and Slaughter (2001b), O'Rourke and Sinnott

(2006), Mayda (2006), Facchini and Mayda (2009), Dustmann and Preston (2006), Ortega and Polavieja (2012) among others. Most of the existing studies are static analysis using cross-sectional data on attitudes reflecting ex-ante anticipations of the potential future impacts of immigration on the economy. However, this type of analysis is unlikely to provide much insights into how attitudes are formed and changed over time. In particular, little is known about how preferences are directly affected by the presence of immigrants [3]. Specifically, little attention has been paid on how the increasing inflows of immigrants in Europe have affected natives' attitudes towards immigration over the past decade. This question is the focus of this paper, which is one of the first to look into the *evolution* of attitudes towards immigration. [4]

The second strand of literature related to my paper investigates how ethnic diversity affects individual preferences for redistribution. [5] Most of the studies have especially focused on the role of non-economic interpersonal considerations –see Stichnoth and Van der Straeten (2013) for an overview. In particular, the existence of differential altruism, i.e. the fact that individuals prefer to redistribute towards their own racial/ethnic/cultural group has been put forward as a key mechanism (Luttmer, 2001; Dahlberg et al., 2012; Murard, 2011). [6] Scarce evidence exists on the role played by economic factors in explaining the impact of immigration on preferences for redistribution. The goal of this paper is to help fill this gap. Two exceptions are represented by Senik et al. (2009) and Finseraas (2008) who study how individual attitudes towards the welfare state correlate with individual attitudes towards immigration. However, none of these papers considers how immigrant inflows and their direct impacts on the welfare state of destination countries affect individual preferences for redistribution. [7] Using cross-sectional migration data at the country level and exploiting variation in individual attitudes within country (from the ESS), a recent work by Alesina et al. (2014) examines how immigration affects opinions towards redistribution. The authors find that when the share of immigrants increases, native citizens tend to support less redistribution than foreign born residents, which they interpret as group loyalty effects. Using data on the relative skill composition of immigrants, they also find evidence consistent with labor market effects. Results in Alesina et al. (2014) are however solely informative on the relative differential effects of immigration, i.e. on how immigration affects certain groups of citizens relative to other groups. My paper rather provides insights into the magnitudes of the absolute direct effects of immigration on natives' attitudes, which I estimate using variation over time in immigrant inflows.

Although this paper focuses on economic determinants of individual attitudes, noneconomic factors

3. There is a tradition of research on whether individual's contact with immigrants, and neighborhood foreigner concentrations, lead to more positive or negative attitudes. Yet, most empirical tests ("contact" versus "group conflict" hypothesis) have been performed in a static cross-sectional setting – see Dustmann and Preston (2001) and related social and political science research (Lahav, 2004; Semyonov et al., 2008; Meuleman et al., 2009). Facchini and Mayda (2009) look at how the relative skill composition of immigrants changes how attitudes and education are correlated across individuals. Yet, this is again a static cross-sectional analysis.

4. An exception being Bridges and Mateut (2014)

5. This literature focusing on the role of individual preferences has emerged to understand why racial/cultural diversity seems associated with lower level of public good provision and social benefits (Alesina et al., 1999, 2001; Alesina and Glaeser, 2004)

6. By reducing the share of same identity group members among welfare recipients, diversity mechanically decreases individual support for redistribution.

7. The impact of immigration on the welfare state of destination countries has has been the subject of several studies such as Storesletten (2000) and Dustmann and Frattini (2014)

are also important – as a vast sociological and political science literature have underlined, e.g. Putnam (1995). For example, natives may oppose immigration because of racial or cultural prejudice against foreigners (Dustmann and Preston, 2007). On the contrary, native citizens may derive utility from the cultural diversity brought by immigrants and this taste for diversity may be stronger for more educated citizens due to "educated preferences" of such individuals (Hainmueller and Hiscox, 2007a). Finally, due to differential altruism, group loyalty may prevail when it comes to share public ressources, thereby explaining why natives may support less redistribution in more ethnically or culturally fragmented communities.

However, the empirical relationships I estimate cannot be simply interpreted in terms of pure taste or preference effects, for at least three reasons. First, I find similar negative effects of immigrant inflows on natives' attitudes towards immigration, irrespective of whether I use data on natives' willingness to accept immigrants of the same race/ethnicity or from a different racial/ethnical background. Second, while unskilled immigrants are more likely to come from non-EU countries with more "exotic" culture relative to skilled migrants who mainly come from within EU, I find that it is skilled, and not unskilled, immigration that reduces pro-immigrant sentiments among the most educated natives. This finding is hard to reconcile with racial prejudice or educated preferences mechanisms. Third, I find that native workers favor higher level of redistribution in response to an increase in the number of immigrant workers in the same occupation. This cannot be explained by group loyalty effects – but rather by labor market concerns due to tighter competition.

Overall, explanations of attitudes in terms of economic concerns survive after taking into account non-economic factors.

2 Theoretical model

2.1 Settings

To analyze the effect of immigration on individual attitudes towards redistribution I build on the model developed by Facchini and Mayda (2009) and consider a simple two–factors HO model of a small open economy. [8] Focusing on the case of a single aggregate output sector, I augment it by incorporating a redistributive welfare system, like in Dustmann and Preston (2006). Importantly, the possible effects of immigration on wages and the welfare state as predicted by the model do not necessarily reflect actual impacts on the economy but rather natives' perceptions on these potential impacts

I consider two production factors which are unskilled (L_U) and skilled labor (L_S). They are combined using a constant returns to scale technology to produce the output y, which price is normalized to one. The economy is populated by a set of N natives, indexed by n, and by a set of M immigrants, indexed by m. Natives and immigrants are endowed with either one unit of skilled or unskilled labor. [9] The total supply of each skill is the sum of native-born and foreign-born labor :

$$L_j = L_j^n + L_j^m = L_j^n(1+\pi_j) \quad j \in \{U,S\} \tag{1}$$

8. Thus, since a small open economy without non-tradeable sectors takes international prices as given, I abstract from the potential price effects of immigration.

9. I make this assumption, following Razin et al. (2002), to highlight the possibility of a welfare leakage effect from natives to migrants.

where π_j is the immigrants to natives ratio among the labor supply of skill j. Furthermore, the number of natives is held constant throughout the analysis.The immigrants to natives ratio is assumed to be very low initially.

Let w_j be the (before tax) prevailing wage rate, with $w_S > w_U$. Let $c(w_U, w_S)$ be the unit cost function. Wages and outputs are determined by two sets of equilibrium conditions. Firstly, equilibrium in the factor market requires supply to be equal to demand,

$$L_U = y\frac{\partial c(w_U, w_S)}{\partial w_U} \tag{2}$$

$$L_S = y\frac{\partial c(w_U, w_S)}{\partial w_S} \tag{3}$$

Secondly, perfect competition implies that firms earn non-positive profits in equilibrium, i.e.

$$c(w_U, w_S) = 1 \tag{4}$$

The government intends to levy an egalitarian income tax consisting of a flat rate τ, accompanied by a lump sum social benefit b. [10] I consider the tax rate τ as exogenous and assume that it does not affect the labor supply of individuals. The cash grant b may be thought of as capturing the provision of free public services, and for simplicity, I assume that migrants are entitled to all public programs available in the destination country. Thus, by design, this tax system is redistributive. The government budget constraint can be written as

$$\tau(w_U L_U + w_S L_S) = b(L_U + L_S) \tag{5}$$

The net income of a native n of skill level j is given by

$$I_j = (1-\tau)w_j + b, \tag{6}$$

2.2 Effect of immigration on natives' net income

The change in net income of a native individual j can then be decomposed in the following manner :

$$dI_j = (1-\tau)dw_j - w_j d\tau + db \tag{7}$$

Immigration affects the well being of the current residents through three possible channels : tax rates, per capita transfers and the labor market.

Effect on the labor market

Totally differentiating the equilibrium conditions, I can show that the effect of immigration on wages is given by :

$$d\ln w_i = \frac{d\pi_j - d\pi_i}{\varepsilon_{su} + \varepsilon_{us}\frac{\theta_u}{\theta_s} - \varepsilon_{uu} - \varepsilon_{su}\frac{\theta_u}{\theta_s}} \quad i, j \in \{U, S\} \tag{8}$$

10. The literature has suggested (Mirrlees, 1971) that the best egalitarian income tax can be approximated by a linear tax. This strategy has been followed for instance by Razin et al. (2002), among others.

where $\theta_i = \frac{\partial \ln c}{\partial \ln w_i}$ is the factor share in production and $\varepsilon_{ij} = \frac{\partial \ln c_i}{\partial \ln w_j}$ the factor demand elasticity with $c_i = \frac{\partial c}{\partial w_i}$ [11]. The denominator being positive due to the concavity of the cost function (see Dustmann and Preston (2006) for a proof), it follows that :

$$\frac{\partial \ln w_i}{\partial \pi_j} > 0 \text{ and } \frac{\partial \ln w_i}{\partial \pi_i} < 0 \quad \text{for } i \neq j$$

which simply says that unskilled immigration is expected to depress the wages of unskilled natives (due to competition) and to raise the wages of skilled natives (due to complementary). Conversely, skilled immigration puts a downward pressure on skilled wages and an upward pressure on unskilled wages.

Effect through the welfare system

Totally differentiating the government's budget constraint and noting $\overline{w} = \frac{w_U L_U + w_S L_S}{L_U + L_S}$ the average income in the population, I obtain :

$$\frac{d\tau}{\tau} + \frac{d\overline{w}}{\overline{w}} = \frac{db}{b} \tag{9}$$

The welfare state has to adjust the redistribution system in response to immigration, depending on whether immigrants represent a net fiscal cost or a net fiscal gain for public finances. As underlined by Facchini and Mayda (2009), two types of adjustments are possible. Either social benefits are held constant and the tax rate adjusts (*tax adjustment model*), or the tax rate remains the same and benefits adjust (*benefit adjustment model*). In the tax adjustment model (with $db = 0$), changes in the tax rate is given by :

$$\frac{d\tau}{\tau} = -\frac{d\overline{w}}{\overline{w}} = -\frac{(w_U - \overline{w})L_U^n d\pi_U + (w_S - \overline{w})L_S^n d\pi_S}{w_U L_U + w_S L_S} \tag{10}$$

Because unskilled migrants consume more in social benefits than they contribute in labor taxes, unskilled immigration represents a net fiscal burden. In response to unskilled immigration, the tax rate needs thus to increase to balance the government budget ($\frac{\partial \tau}{\partial \pi_U} > 0$). In the opposite, skilled migrants contribute more than they take out of the welfare system, and therefore represent a net fiscal gain. Skilled immigration allows the government to lower taxes without decreasing the social transfers ($\frac{\partial \tau}{\partial \pi_S} < 0$). [12] Conversely, if the tax rate is held constant, social benefits will decline with unskilled immigration and will increase with skilled immigration.

In both cases, the net income of natives is affected in a similar way :

$$dI_j = (1-\tau)dw_j + \tau w_j \frac{d\overline{w}}{\overline{w}} \quad \textit{in the tax adjustment model} \tag{11}$$

$$dI_j = (1-\tau)dw_j + \tau d\overline{w} \quad \textit{in the benefit adjustment model} \tag{12}$$

11. With approximation $d\ln(1+\pi_i) \approx d\pi_i$

12. In this framework, I consider only an marginal inflow of immigrants which does not affect the total remuneration of the existing workforce ($L_U dw_U + L_S dw_S = 0$). If the inflow of immigrants is substantial, then all immigrating labour is paid the marginal product of the last immigrant and a surplus is generated on the labour of inframarginal immigrants – this is the so-called "immigration surplus'" a la Borjas (1995)

The first term represents the change in income due to the change in wages. The second term represents the impact of immigration on the net public transfers received by the natives.

Unskilled natives disfavor unskilled immigration because it likely reduces both their wages and their net welfare benefits (or increases their taxes). Similarly, they favor skilled immigration because skilled migrants raise both their wages and the net public transfers they receive. On the contrary, skilled natives may feel ambivalent about either type of migrants because the impact trough the labor market and the through the welfare state run in opposite direction. On the one hand, skilled natives benefit from unskilled immigration through labor market complementary. On the other, they have to finance the welfare benefits of unskilled migrants. Similarly, skilled immigrants tend to alleviate the fiscal burden of skilled natives, but also compete with them for the same jobs.

Proposition 1 *Unskilled natives always favor skilled immigration and dislike unskilled immigration. Skilled natives have theoretically ambiguous attitudes towards skilled and unskilled immigration. If labor market concerns dominate welfare considerations, skilled natives they should disfavor inflows of skilled migrants and support inflows of unskilled migrants.* [13]

2.3 Effect on natives' preferences for redistribution

I now focus on how an increase in the extent of redistribution affects the well being of a native individual n of skill type j. This is captured by the following

$$\frac{dI_j}{d\tau} = \overline{w} - w_j \tag{13}$$

which simply means that if an individual earns a lower wage than the average, a marginal increase in the tax rate will be beneficial to him. The opposite is true if instead the individual earns a higher wage than the average. To study the effect of immigration on attitudes towards redistribution, I compute

$$\frac{\partial}{d\pi_i}\left(\frac{dI_j}{d\tau}\right) = \frac{\partial \overline{w}}{d\pi_i} - \frac{\partial w_j}{d\pi_i} \tag{14}$$

The effect of immigration on individual attitudes towards redistribution depends on two channels [14]. The first works through the welfare system and depends on immigrant's position vis a vis the welfare state. If immigrants consume more welfare than they contribute, the additional public revenues raised by a marginal increase in the tax rate will fall disproportionally in the hands of new immigrants. This "fiscal leakage effect" (Razin et al., 2002) lowers natives' support for redistribution because tax revenues

13. The proof is simple. Since $\frac{\partial \overline{w}}{\partial \pi_U} < 0$; $\frac{\partial \overline{w}}{\partial \pi_S} > 0$; $\frac{\partial w_U}{\partial \pi_U} < 0$; $\frac{\partial w_U}{\partial \pi_S} > 0$: then

$$\frac{\partial I_U}{\partial \pi_U} < 0 \text{ and } \frac{\partial I_U}{\partial \pi_S} > 0$$

14. If I measure preferences for redistribution by a change in the welfare benefits b rather than the tax rate, I obtain similar predictions since :

$$\frac{dI_j}{db} = \frac{\overline{w} - w_j}{\overline{w}}$$

mainly serve to finance unskilled immigrant's social benefits. The opposite is true if migrants are skilled and net contributor to the welfare system.

The second channel works through the labor market and depends on how immigration affects wages. In response to an inflow of unskilled immigrants, unskilled natives suffer from tighter competition in the labor market. In order to be compensated for the downward pressure on their wages, unskilled natives would like to receive higher public transfers. Their demand for redistribution increases. On the contrary, skilled natives benefit from greater labor market complementary. Due to the upward pressure on skilled wages, skilled natives gain even less from the welfare system and may prefer a lower level of redistribution. The opposite is true when immigrants are skilled.

In total, unskilled immigration reduces skilled natives' support for redistribution because of the net fiscal burden and the rise in skilled wages. Similarly, when skilled immigrants arrive, skilled natives favor more (or dislike less) redistribution. On the contrary, attitudes of unskilled natives are unclear. On the one hand, when unskilled immigrants come in, unskilled natives may prefer less redistribution because of the fiscal leakage effect absorbing natives' taxes,. On the other hand, unskilled natives may favvor higher social benefits as a compensation mechanism to cope with tighter labor market competition with unskilled migrants. The same ambiguity prevails when immigrants are skilled. When skilled immigrants are coming in, unskilled wages tend to go up and unskilled natives are less dependent on welfare, which decrease their support for redistribution. On the other hand, the net contributions of skilled immigrants increase the net welfare benefits received by unskilled natives, which may increase their support for redistribution.

Proposition 2 *Skilled natives always prefer less redistribution in response to unskilled immigration and support more redistribution in response to skilled immigration. On the contrary, immigration have ambiguous effects on unskilled natives' attitude towards redistribution. If public finance concerns outweigh labor market concerns, unskilled natives should favor less redistribution in response to unskilled immigration. They should favor more redistribution in response to skilled immigration.* [15]

Table 1 summarizes the expected effects of immigration on natives's attitudes. In section 4, I bring these predictions to the data by exploiting variation in immigrant inflows across regions in Europe. The empirical analysis implicitly assumes that regional government have some degree of fiscal autonomy and that immigration may have local effects on regional budget constraint. I also assume that immigration may affect labor markets locally.

3 Data

The main sources of my data are the European Social Survey (ESS) – which gives information on individual-level variables such as attitudes towards redistribution and towards immigration – and the

15. The proof is simple. Since $\frac{\partial \overline{w}}{\partial \pi_U} < 0$; $\frac{\partial w_S}{\partial \pi_U} > 0$; $\frac{\partial \overline{w}}{\partial \pi_S} > 0$; $\frac{\partial w_S}{\partial \pi_S} < 0$: then

$$\frac{\partial}{d\pi_U}\left(\frac{dI_S}{d\tau}\right) < 0 \text{ and } \frac{\partial}{d\pi_S}\left(\frac{dI_S}{d\tau}\right) > 0$$

TABLE 1 – Predicted effects of immigration on natives' attitudes

	Unskilled immigration		Skilled immigration	
Channel	Labor market	Welfare State	Labor market	Welfare State
Effects on attitudes in favor of allowing more immigrants :				
Unskilled natives	negative	negative	positive	positive
Skilled natives	positive	negative	negative	positive
Effects on attitudes in favor of more redistribution :				
Unskilled natives	positive	negative	negative	positive
Skilled natives	negative	negative	positive	positive

European Labor Force Survey (ELFS) – from which I construct measures of the skill composition of migrants relative to natives at the European NUTS-1 regional level.

3.1 Data sources and definition of variables

The European Social Survey

Data on individual attitudes towards immigration and towards redistribution is taken from the six rounds of the European Social Survey (ESS) [16] : 2002, 2004, 2006, 2008, 2010 and 2012. I use the answers to the following three questions to construct my measures of the respondent's attitude towards the arrival of further immigrants : (1) "To what extent do you think [country] should allow people of the same race or ethnic group as most [country] people to come and live here ?", and (2) "How about people of a different race or ethnic group from most [country] people ?" and (3) "How about people from the poorer countries outside Europe ?". The survey allows for four ordered responses : "allow many to come and live here", "allow some", "allow a few", and "allow none". I create three different dummy variables measuring pro-immigration attitudes. The first dummy *pro_immi_samerace* equals one if the respondent is ready to "allow many" or "allow some" immigrants of the same race. The second dummy $pro\_immi\_diffrace$ takes one if the respondent accepts many or some immigrants of a different race. The third dummy *pro_immi_poor* equals one if the respondent is not reluctant to host immigrants from poorer non-European countries. Although related to each other, these three different measures of attitudes towards immigrants are not highly correlated and are therefore worth being examined separately. [17]

The ESS survey also asks questions related to redistribution and to the role of the government in this respect. In particular, respondents are asked to which extent they agree or disagree with the statement

16. For details, see `http://www.europeansocialsurvey.org`. The survey samples about 1500 persons older than 15 in each country every two years

17. Coefficients of correlation of the dependent variables

	pro_redis	pro_immi_same race	pro_immi_diffrace	pro_immi_poor
pro_redis	1.00			
pro_immi_same race	-0.06	1.00		
pro_immi_diffrace	-0.04	0.68	1.00	
pro_immi_poor	-0.02	0.59	0.75	1.00

that "The government should take measures to reduce differences in income levels". I define the dummy variable *pro_redis* which equals one if the respondent agrees or agrees strongly with this statement.

The ESS also collects a a host of information on individual demographic and economic characteristics which are potentially important determinants of attitudes towards immigration and redistribution. This includes the the respondent's age, gender, educational attainment, immigration background, the size and composition of her household, her main activity during the week before the interview (employee, self-employed, inactive, attending school, unemployed, sick/disabled, retired), as well as the nature of her usual place of residence (big city, suburbs, small city, village, country side). I use the educational attainment (lower secondary, secondary and tertiary education) as the measure of the individual's level of skill.

The European Labor Force Survey

I use the ELFS to construct measures of the skill composition of migrants at the European NUTS-1 regional level. [18] Immigrants are defined as foreign-born individuals, irrespective of whether they are born in the EU or not. I define natives and migrants as being *skilled* if they have at least one year of tertiary education, based on the International Standard Classification of Education (ISCED 5a, 5b or 6). I define individuals as being *unskilled* is they have strictly less than tertiary education (ISCED 4 or less). Moreover, since I focus on the potential labor force, I restrict the sample to the 15-64 population.

Since I am interested in how natives' opinions may change over time because of immigration, I use measures of immigrant inflows rather than stocks. Each immigrant surveyed in the ELFS is asked to report the number of years she has been living in her current country of residence. Choosing 2002 as the reference year, I am able to compute the number of recent immigrants arrived after 2002 in a given region for each ELFS survey round conducted at year $t > 2002$. Consistently with the theoretical model, I define the following immigrants to natives ratio :

$$\Pi_{nt} = \frac{\text{Immigrants in region } n \text{ at } t \text{ arrived after 2002}}{\text{Native population in region } n \text{ at time } t}$$

where the numerator is the cumulative inflow of immigrants arrived between 2002 and time t in a given NUTS region n.The denominator is the number of inhabitants of region n at time t who are born in the country. The ratio only counts individuals older than 15 and younger than 64. [19] I also define the immigrants to natives ratio within each type of skill k as :

$$\Pi^k_{nt} = \frac{\text{Immigrants of skill } k \text{ in region } n \text{ at } t \text{ arrived after 2002}}{\text{Native population of skill } k \text{ in region } n \text{ at time } t} \quad \text{for } k = U, S$$

By definition, $\Pi^k_{n,2002} = 0$ in 2002 and $\Pi^k_{n,t+1} \geq \Pi^k_{n,t}$. As figure **??** in Appendix shows, inflows of immigrants have steadily increased since 2002 in all European countries and represent sometimes more

18. For details, see `http://ec.europa.eu/eurostat/statistics-explained/index.php/EU_labour_force_survey`

19. Specifically, for each ELFS survey conducted in a country during year $t > 2002$, I compute the ratio of number of foreign-born living since 2002 in the country to the number of natives. I do not consider survey rounds in which the percentage of non-response to the question about years of residence in the country is higher than 10% among foreign-born.

than 10% of the native population by 2012. For most of the countries, cumulative inflows after 2002 are very similar to variation in immigrants' stocks, both in level and in time trend. Only exceptions are the Netherlands, France and Germany, where the variation in stocks seem much lower than cumulative flows, likely because of return migration.

I check the accuracy of ELFS data on immigration flows by comparing my cumulative measure $\Pi_{n,2012}$ to Eurostat official data on annual immigration flows based on population registers and other national household surveys. Table **??** in Appendix suggests that the two data sources are quite consistent [20]. Table **??** also suggests that ELFS-based variation in stocks of migrants are similar to those computed with DIOC data (Database on Immigrants in OECD Countries,Docquier et al. (2006))

Taking advantage of the rich information on location of residence in the ESS, I am able to identify the NUTS-1 region where each respondent in the ESS lives. I successfully combine the ELFS and the ESS surveys for 100 different NUTS regions across 18 different countries during the period 2002-2010 : Austria (AT), Belgium (BE), Czech Republic (CZ), Denmark (DK), Finland (FI), France (FR), Germany(DE), Greece (GR), Ireland (IE), Italy (IT), Luxembourg (LU), Netherlands (NL), Norway (NO), Portugal (PT), Spain (ES), Sweden (SE), Switzerland (CH), United Kingdom (UK). Table **??** in Appendix provides the exhaustive list of all NUTS region included in the analysis. Countries like Czech Republic Norway, Portugal or Switzerland, are composed of only one NUTS-1, the country itself. For these countries, I use NUTS-2 instead of NUTS-1 regions in order to maximize the variation in immigrant inflows across regions. The design of the LFS samples is supposed to ensure statistical reliability and representativeness at regional level NUTS-2.

3.2 Descriptive statistics

Attitudes towards redistribution and immigration

Table 2 presents summary statistics of the four dependent variables used in the analysis. I find substantial cross-country variation in the initial average support for redistribution in 2002. More than 80% of respondents in France, Italy, Portugal and Greece favors a further reduction of income inequality by the State, while only 40% of Danes and 54% of Germans support redistributive policies. The second column of table 2 suggests that these preferences have not remained stable over time. From 2002 to 2012, the average support for redistribution has considerably increased in Germany by 15% (from 54% to 69%) , while it has dramatically declined by 11% in Norway.

With respect to attitudes towards immigration, important cross-country variation emerges as well. In 2002, Greek respondents oppose immigration the most while Swedish, Swiss and Irish individuals oppose the least. The ranking of countries by pro-immigration attitudes seem very similar irrespective of the racial/ethnical background of immigrants, or whether they come from poor non-EU countries. The direction and magnitude of changes in attitudes over time are very different across countries. Over the last decade, a surge of anti-immigrants attitudes is particularly apparent in the UK, in Ireland and in Czech Republic. In contrast, resistance to immigration seem to have decreased in Austria, Denmark, Germany and Norway.

20. which is in line with results of Rendall et al. (2004) showing that the UK LFS provides accurate estimates of the time trend of total annual immigrants

Finally, table **??** in Appendix presents average characteristics of respondents in the ESS survey included in in the sample of NUTS regions which I analyze. The descriptive statistics also show the distribution of respondents across countries and years in the sample.

Inflows of immigrants by skill

The cumulative inflow of immigrants over the decade 2002-2012 (expressed in % of the 2012 native population) varies substantially from one country to another. Figure 1 shows the location of each country in a bi-dimensional space where the inflow of unskilled migrants (in % of unskilled natives) is plotted on the x-axis and the inflow of skilled migrants (in % of skilled natives) is plotted on the y-axis. Three broad group of countries can be distinguished. The first includes Switzerland, Ireland and the UK. In these countries, the inflow of skilled migrants has exceed by far the inflow of unskilled migrants over the past decade. This partly results from inflows of better educed immigrants from the A8 accession countries to the only three national markets which allowed free access in the years following the first EU enlargement (2004 onwards). [21] For example, immigration in the UK has added 15% individuals to the skilled population and only 7.5 % to the unskilled population. The second group includes Spain, Italy and Greece. These countries have hosted immigrants who are much less skilled relative to the native population. This partly reflects unskilled immigration from A2 accession countries (Romania and Bulgaria) in the years following the second EU enlargement (2007 onwards). In Spain, the recent massive immigration waves (also from Morocco) have generated in a increase in the unskilled labor force by 12% and in a increase in the skilled labor force by only 6%. The third group is composed of countries who have received immigrants with skills relatively similar to natives. This group includes France, Germany, Danemark Finland and others who have hosted few new immigrants. Although sizable, recent immigration to Norway and Belgium have not much affected the skill composition of the working age population. The bottom panel in Figure 1 plots the inflows of immigrants by skill for each NUTS region. The graph points to an important heterogeneity across NUTS in terms of the size and skill composition of immigrant's inflows.

Correlation between natives' attitudes and immigrant inflows

In figure **??**, I examine how the average variation in natives' support for redistribution over the period 2012-2002 correlates with the inflow of immigrants in the same region over the same period. As shown in panel (a), no significant relationship emerges between support for redistribution and immigrant's inflow within the total population. Because skilled and unskilled migrants' flows are correlated with each other, I also find no clear relationship between natives' attitudes and each type of immigration separately. To investigate further the effect of one type of immigration independently of the effect of the other, I regress natives' attitudes on skilled immigration and use the residual R_S. [22] The latter measures the variation in natives' attitudes that cannot explained by skilled immigration. In panel (b) I correlate R_S with unskilled immigration. I did the reverse for unskilled immigration in panel (c) and plot R_U on the y-axis. In line

21. A8 countries are the first eight accession countries : Czech Republic, Estonia, Hungary, Latvia, Lithuania, Slovenia and Poland.

22. I estimate $\Delta y_n = a\Pi^S_{n,2012} + b + u$ where Δy_n is the 2012-2002 variation in the average natives' attitude in region n. I use $R_S = \widehat{u}$.

with the theory, panel (b) and (c) show that the partial effect of skilled and unskilled migration are opposite : postive for skilled migration and negative for unskilled migration. I repeat the same exercise in figure **??** with respect to attitudes towards immigration policy. Panel (c) suggests that a negative relationship exists between skilled immigration and natives' willingness to accept more immigrants of the same race.

I now turn to the formal empirical analysis to investigate wether this findings holds when I control for individual level characteristics of native respondents and whether the effects depend on the skill level of natives.

4 Empirical strategy

4.1 Main OLS specification

The main prediction of the theoretical model is that skilled and unskilled immigration flows have differential, often opposite, impacts on natives' attitudes towards redistribution and towards immigration policy. These theoretical effects are *partial* and not total effects. They measure the impact of immigration within a skill group given a fixed supply of immigrants in the other skill group. These predictions suggest an empirical specification where natives' attitudes towards redistribution (and immigration) are regressed on *both* the inflow of skilled immigrants Π^U_{nt} *and* the inflow of skilled immigrants Π^S_{nt}.

Although the ESS survey does not track the same individuals over time, I am able to implement a sort of pseudo panel analysis similar to Bridges and Mateut (2014). I follow the same "cohorts" over time in order to eliminate any unobserved fixed effects. I define "cohorts" based on eight, ten-year interval age groups, sex, and three education groups. The first age group includes individuals born before 1929. The second age group comprises of people born in the period 1930-1939 and so until the the 8th age group which includes people born after 1990. I measure educational attainment of native individuals according to the following three categories : less than primary or lower secondary education completed (ISCED 0,1,2), upper secondary completed (ISCED 3,4), and tertiary education or more (ISCED 5,6 or more). I thus construct 48 different cohorts in the data : 8 (age group) *2 (sexes) *3 (education) = 48 cohorts.

In the sample of native-born ESS respondents, I estimate the following linear probability model for for individual i in cohort c, living in a region NUTS n at time t, with t= 2002,2004,2006,2008,2010,2012 :

$$y_{icnt} = \beta^U \Pi^U_{nt} + \beta^S \Pi^S_{nt} + X_{it}\lambda + \delta_c + \delta_n + \delta_n * \delta_c + \delta_t + \varepsilon_{icnt} \tag{15}$$

where y_{icnt} is a dummy variable indicating natives's attitudes towards redistribution or towards immigration. In all my specifications, I include a set of cohort fixed effects δ_c, regions NUTS fixed effect δ_n, year fixed effect δ_t, as well as an interaction of cohort and region fixed effects $\delta_n * \delta_c$. The matrix X_{it} controls for individual level socio-demographic such as the respondent's main activity during the week before the interview, the size of her household, her parent's education and parent's immigration background, as well as her usual place of residence (see table **??** in Appendix for full list of controls). I cluster standard errors at the NUTS-by-year level to account for the possible correlation of the individual-level residuals ε_{icnt} within the same NUTS-1 region and year. Finally, observations are weighted with survey

weights in order to ensure the representativity of the sample, both within each country and also across countries. [23]

The identification of β^U and β^S in equation (15) only exploits variation over time and across region in natives' opinions. Since $\Pi^U_{n,2002} = \Pi^S_{n,2002} = 0$ by definition, β^U estimates the effect of migration flows on variation in opinions relative to 2002 initial level. Assuming that immigration inflows are exogenous, I can write

$$\beta^U = \frac{\partial}{\partial \Pi^U_{nt}} \mathbb{E}\left[\overline{y_{cn,t}} - \overline{y_{cn,2002}} | \Pi^S_{nt}, \Pi^U_{nt}, \overline{X_{cn,t}}, \overline{X_{cn,2002}}\right]$$

where $\overline{y_{nc,t}}$ is the average of y at time t for a given cohort c living in region n. And similarly for β^S. Note also that the multicollinearity between Π^U_{nt} and Π^S_{nt} does not seem to pose severe problem for the estimation. The simple correlation between the two types of migration flow is about 0.82 in the sample. The variance inflation factors (VIF) of Π^U_{nt} and of Π^S_{nt} estimated in equation (15) are below 7, which further indicates that no serious multicollinearity problems exist. [24]

Theory predicts different effects of immigration depending on the skill level of natives. I proxy natives' skills by educational attainment and investigate heterogeneous impact depending on the value of edu_{int}. This categorical variable classifies natives into three groups already mentioned : "less than primary/lower secondary (1), upper secondary (2), and tertiary education(3). I then estimate

$$y_{icnt} = \sum_{e=1}^{3} \mathbb{1}(edu_{int} = e) * [\beta^U_e \Pi^U_{nt} + \beta^S_e \Pi^S_{nt}] + X_{it}\lambda + \delta_c + \delta_n + \delta_n * \delta_c + \delta_t + \varepsilon_{icnt} \tag{16}$$

In the above specification, β^k_e represents the impact of an inflow of immigrants with skill $k = U, S$ on attitudes of native with educational level e. I expect that natives with less than lower secondary education compete in the labor market with unskilled immigrants who have completed secondary education or less. I also expect that they are complements of skilled immigrants who have tertiary education. If so, I should then obtain $\beta^U_1 < 0$ and $\beta^S_1 > 0$ when the effects on attitudes towards redistribution are estimated. If natives with tertiary education are substitutes of skilled migrants and complements of unskilled migrants, then I should obtain $\beta^U_3 < 0$ and $\beta^S_3 > 0$ when the effects on attitudes towards immigrants are estimated. The effect β^k_2 among natives with upper secondary education are a priori ambiguous and depend on the substitutability with migrant labor.

4.2 Endogeneity concerns

Concerns about the endogeneity of immigration inflows have to be addressed when interpreting the estimates of equation (15) and (16) causally. I discuss the possible sources and directions of biaises in OLS estimates.

23. Survey weights include population weights to make the size of the country-specific samples proportional to each country's population.As a robustness check, I also estimate the regressions without survey weights and find similar results.

24. This method for detecting multicollinearity are described in Chatterjee and Hadi (2015) and Neter et al. (1996). Formally, for a independent variable x_j, $VIF_j = \frac{1}{1-R^2_j}$, where R^2_j is the r^2 (square of the coefficient of multiple correlation) obtained when x_j is regressed against all the other independent variables. A common rule of thumb is that a VIF_j greater than 10 is often taken as a signal that the data have collinearity problems. For example, a value of VIF_j of 50 indicates that the variance of the OLS estimator of b_j is 50 times as large as it would be if x_j were orthogonal to the others explanatory variables.

Potential bias in the estimates on attitudes towards redistribution

When estimating the effects of immigration on natives' support for redistribution, different sources of endogeneity may arise. First, destination choices of migrants are not random, even in a dynamic settings. According to recent evidence in Razin and Wahba (2015), the generosity of the Welfare State tends to attract relatively more unskilled migrants and relatively less skilled migrants (welfare magnet hypothesis). In addition, as Borjas (1987) argues, more unequal wage distribution at destination tend to attract relatively more skilled immigrants and less unskilled migrants.

Second, immigration policies may also be endogenous. For example, societies more averse to global inequality may have more open-door policy towards poor low-skill immigrants (e.g. refugee placement policies in Sweden). Natives may also anticipate distributional effects of immigration on wages and decide over immigration quotas depending on these anticipations. Society adverse to earnings' inequality may then be reluctant to host large flows of low-skill migrants, because they expect the excess supply of low-skill labor to increase the skill premium.

Since earnings inequality and the generosity of welfare policies are likely related to native citizens' attitudes towards redistribution, the self-selection of migrants and endogenous immigration policies may generate biases in the OLS estimates. Moreover, the direction of such biases are difficult to determine a priori.

Potential bias in the estimates on attitudes towards immigration

When estimating the effects of immigration inflows on natives' attitudes towards immigrants, "attitudinally" motivated movements of natives and migrants across places of residence may confound the estimates. As Dustmann and Preston (2001) put it, "racially intolerant individuals from the majority community are unlikely to choose to live in areas with large ethnic minority populations. Equally, ethnic minority individuals are unlikely to choose to live in areas where they expect to experience racial intolerance." Either of these phenomena would generate a positive bias in OLS estimates of the effects of immigration on natives' pro-immigrant sentiments. In addition, the geographic mobility of natives is arguably limited across large NUTS regions, so such bias is likely to be small (see map **??** in appendix). [25]

Another problem is that the inflow of immigrants that arrive between t and $t+1$ may depend on immigration policies decided before time t. Such policies are likely to reflect the state of the public opinion towards immigrants at time t or before. Therefore, the initial level of opinions at time t may partly determine the subsequent immigrant inflows between t and $t+1$. The fact that variation in opinions between t and t+1 may be mechanically correlated with the initial level of opinions at time t may generate biases in the OLS estimates of how immigrant inflows affect change over time in public opinions.

4.3 Instrumental variable

To address the potential endogeneity of the location of immigrants, I use past settlement patterns of previous immigrants as an instrument for current inflows. Different versions of this approach have been used in the literature – see Altonji and Card (1991); Card (2001); Cortes (2008) among many others. The instrument exploits the tendency of immigrants to settle in areas with large historical enclaves of

25. There is little empirical evidence that immigration leads to the displacement of natives – see Card (2001) and Gonzalez and Ortega (2011).

immigrants from the same country. Origin-specific immigrant networks are an important determinant of the destination choices of prospective immigrants because these networks lower settlement costs (housing) and facilitate job search. I use the initial 2000 distribution of immigrants from a given country across NUTS regions to allocate the new waves of immigrants from that country. For example, if 10% of all Senegalese immigrants in Europe were living in Paris in 2000, the instrument allocates to Paris 10% of all recent Senegalese migrants to Europe from 2002s onwards.

Formally, the instrument for the number of immigrants with educational level e who live in region n at time t can be written as

$$\widehat{N^e_{n,t}} = \sum_o \frac{N^o_{n,2000}}{\sum_k N^o_{k,2000}} \times \sum_k N^{o,e}_{k,t} \tag{17}$$

where o are *all* possible countries of origin and k are *all* NUTS region included in the ESS-ELFS matched sample. $\frac{N^o_{n,2000}}{\sum_k N^o_{k,2000}}$ represent the percentage of all immigrants from country o in Europe who were living in region n in 2000, and $\sum_k N^{o,e}_{k,t}$ stands for the *total* number of immigrants from country o to Europe at time t and who have education e. I use these predicted stocks of immigrants to construct the instruments for the flows of unskilled immigrants Π^U_{nt} and skilled migrant Π^S_{nt} between 2002 and t. To do this, I simply compute the variation in the stocks between 2002 and time t. The instrument for the flows can be written as :

$$\widehat{\Pi^S_{nt}} = \frac{\widehat{N^S_{n,t}} - \widehat{N^S_{n,2002}}}{\text{NativePop}^S_{nt}} \quad \text{with } S = \text{tertiary education or more} \tag{18}$$

$$\widehat{\Pi^U_{nt}} = \frac{\widehat{N^U_{n,t}} - \widehat{N^U_{n,2002}}}{\text{NativePop}^U_{nt}} \quad \text{with } U = \text{secondary education or less} \tag{19}$$

where NativePop^e_{nt} is the number of native-born inhabitants in region n at time t with education e (data taken from Eurostat).

I use Eurostat data on the number of immigrants living in each NUTS region in 2000 (15-64 years old). This data is disaggregated by citizenship of the immigrants and gives a good approximation of $N^o_{n,2000}$ for each country of origin o and each destination region n. [26] To obtain the evolution over time of the total number of immigrants in Europe, I draw on DIOC data which was initially collected by Docquier et al. (2006). [27] For most of European countries of destination, this data provides immigrants' stocks by country of origin, by age and education (same 3 level of ISCED than ELFS data) in the year 2000,2005 and 2010. I simply use a linear interpolation to estimate the stocks of immigrants for the years in between and just after, i.e. 2002,2004,2006,2008 and 2012.

The instruments will help identifying the causal effect of immigration as long as the two following conditions hold :

26. I combine Eurostat data at the NUTS level providing citizenship by broad group of origin country (`http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=cens_01rsctz&lang=en`) and Eurostat data at the national level that gives citizenship by detailed origin country (`http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=cens_01nsctz&lang=en`) Since Eurostat data is lacking for Germany, I use data at the "Lander" level from the German National Institute (`https://www-genesis.destatis.de/genesis/online`)

27. `http://www.oecd.org/els/mig/dioc.htm`

— The determinants of the historical distribution of immigrants (till 2000) are likely uncorrelated with factors driving subsequent recent changes (after 2002) in natives' attitudes towards redistribution (and towards immigrants) in the same geographic region.
— The total flow of immigrants to Europe after 2002 are exogenous to differential shocks to NUTS region (which may affects natives' attitudes y_{icnt}). [28]

Estimation of the first stage are presented in Table 10. The magnitudes of the coefficient suggest that an increase of 1% in the predicted inflow of low-skilled immigrants $\widehat{\Pi^U_{nt}}$ significantly increases the actual observed inflow Π^U_{nt} by around 1.5% – after controlling for individual characteristics,, region fixed effects and year fixed effects. When Π^U_{nt} is regressed on both the predicted low-skilled and high-skilled inflows (column 2), the effect of $\widehat{\Pi^S_{nt}}$ is close to zero and insignificant and the effect of $\widehat{\Pi^U_{nt}}$ remains the same. Similarly, when Π^S_{nt} is regressed on both $\widehat{\Pi^S_{nt}}$ and $\widehat{\Pi^U_{nt}}$ (column 4), the coefficient of the predicted high-skill flows $\widehat{\Pi^S_{nt}}$ (1.59) is twice as large as the coefficient of the predicted low-skilled flow $\widehat{\Pi^U_{nt}}$ (0.6).

4.4 Robustness check : within country-year specification

Despite it might address the endogeneity of the destination choices of migrants (supply side of immigration), the instrument might not fully resolve endogeneity issues associated with immigration policies (demand side). To further test the robustness of the results, I estimate another OLS specification without using the instrument. I take advantage of the fact that immigration (and redistribution) policies are primarily decided and implemented at the national level. I estimate a specification similar to equation 16 in which I further include country-year fixed effects :

$$y_{icnt} = \sum_{e=1}^{3} \mathbb{1}(edu_{int} = e) * [\beta^U_e \Pi^U_{nt} + \beta^S_e \Pi^S_{nt}] + X_{it}\lambda + \delta_c + \delta_n + \delta_n * \delta_c + \delta_{\text{country}(n)} * \delta_t + \delta_t + \varepsilon_{icnt} \quad (20)$$

The interaction term $\delta_{\text{country}(n)} * \delta_t$ controls for changes in natives's attitudes over time that are specific to each country of region n. The coefficients of interest (β^U_e, β^S_e) are identified only from changes in immigrant inflows and natives' opinions that happen over time and across regions of the *same country* . The differences in immigrant inflows across regions within the same country are most unlikely driven by policies set up at the national level. Such specification therefore provides estimates that are unlikely to be contaminated by the endogeneity of immigration (and redistribution) policies. In this within-country specification, the tax policy is not necessarily held constant because in most of the European countries regional government have some degree of fiscal autonomy. Moreover, the way in which natives perceive the country-wide effect of immigration on the national fiscal budget may depend on the number and characteristics of the immigrants that they observe locally in their region of residence.

28. In order to make this condition more plausible, I did the following robustness check. To predict migrants' inflows to region n, I exclude region n from the potential destinations to compute the total immigration flows. In others words, I use $\sum_{k \neq n} N^{o,e}_{k,t}$ instead of total flows $\sum_k N^{o,e}_{k,t}$. Therefore, the predicted inflow to region n is not mechanically driven by shocks that are specific to region n. I obtain similar results when I use this method

5 Results

5.1 Main specification

OLS estimates

Non-instrumented empirical results are presented in tables 3, 4, 5 and 6. I first examine in table 3 how natives' attitudes towards redistribution are affected by immigration inflows. Column 1 shows that the total immigrant inflows within the working age population (15-64) reduces natives' support for redistribution. The estimation suggests that a 10% increase in the migrants to natives ratio decreases the average support for redistribution by 2%. This global effect conceals differential impacts depending on the skills of immigrants. Column 4 indicates that the partial effect of unskilled immigration (keeping skilled immigration constant) significantly lower natives' pro-redistribution attitudes. In the opposite, skilled immigration increases pro-redistribution attitudes among natives.

I next explore heterogeneous impacts depending on the skills of natives which I measure by educational attainment (columns 5, 6, and 7). Column 7 is my preferred specification because it estimates the partial effect of one type of immigration keeping the other constant. Skilled and unskilled immigration have respectively positive and negative effects on pro-redistribution opinions among the *most* skilled group of natives with tertiary education or more. This findings is very much in line with the theory. When unskilled migrants are coming in, high-skill natives prefer less redistribution because of the increased net fiscal burden and because of the upward pressure on skilled wages. The reserve is true when skilled migrants are coming in because of the net fiscal gain and the decline in skilled wages.

Unskilled immigration also seems to cause a significant decline in opinions in favor of redistribution among the *least* skilled natives with less than lower secondary education. In response to tighter labor market competition with unskilled migrants, low-skill natives should demand more redistribution and higher social benefits as a compensation mechanism. Labor market concerns would thus predict an opposite effect than the one I observe. Only welfare state considerations are consistent with the estimates. Due to the fiscal leakage effect, low-skill natives prefer less redistribution because any marginal increase in the tax revenues disproportionally fall in the hands of unskilled migrants and lowers natives' net income (after taxes). [29].

Tables 4, 5 and 6 presents OLS estimates of the effects of immigration on natives' willingness to allow new immigrants of the same race (or ethnic background), of a different race, or from poorer non European countries. Results are very similar across these tables, suggesting that the effects do not depend on the racial/cultural distance between immigrants and natives, or on the country of origin of migrants. I therefore discuss estimates in table 4 only.

Column 1 in table 4 indicates that a 10% increase in the migrants to natives ratio within the total 15-64 population increases the average opposition to further immigration by 4.5%. This effect seems to be driven by a resistance to further skilled immigration rather than to unskilled immigration – although the differences in the estimated coefficients is not statistically significant. Unskilled migrants' flows

29. In other words, when unskilled migrants arrive, low-skill natives perceive they would loose from a marginal increase in the tax rate.

also seem to cause higher opposition to further immigration among the least educated group of natives (column 7). This findings is consistent with the theory, since unskilled immigration likely decreases unskilled wages and reduces net welfare benefits (fiscal leakage effect). [30]

Interestingly, the effects of immigration switch signs among medium-skill natives with upper secondary education. Unskilled immigration appears to significantly decrease ant-immigrant attitudes while skilled immigration seems to significantly increase resistance to immigration. Similar effects can be observed on opinions of high-skill natives with tertiary education – although the effect of unskilled immigration is not significant. Since skilled migrants tend to represent a net fiscal gain and unskilled migrant a net fiscal burden, concerns about the public finances would predict opposite impacts than those I observe. Therefore, only labor market concerns can account for these findings. Namely, tighter competition between high-skill natives and skilled migrants (having tertiary education) likely increases opposition to further immigration among the former. Similarly, medium-skill natives are likely to compete with skilled migrants. On the other hand, medium-skill natives may also benefit from labor market complementarities of unskilled immigrants (with secondary education or less), which would explain why they resist less immigration. The fact natives may compete for the same jobs as immigrants who have higher observable education is not surprising. As Dustmann et al. (2013) has established in the case of the U.K, recent immigrants often start working in jobs closer to the lower end of the occupational distribution than their observed skills would predict [31].

IV estimates

When I use the predicted unskilled and skilled immigrant inflow $\widehat{\Pi^U_{nt}}$ and $\widehat{\Pi^S_{nt}}$ to instrument for observed flows Π^U_{nt} and Π^S_{nt}, I find similar effects on natives's attitudes towards redistribution. Table 7 presents results of regressions estimated on different sample of ESS respondents with different educational levels. When unconditional total effects of one type of immigration k (skilled or unskilled) is estimated, I instrument Π^k_{nt} with $\widehat{\Pi^k_{nt}}$ only (column 2 and 3).

Total average effects among all natives are quite similar to OLS estimates (Panel A in columns 2 and 3). A 10% increase in the migrants to natives ratio within the unskilled population decreases the support for redistribution by about 2.8%. In the opposite, an equivalent inflow in the skilled population causes an increase in the support for redistribution by about 4%. Partial effects in column 4 are of the same signs but much larger in absolute terms.

In line with both labor market concerns and welfare State concerns, I find positive and negative effects of skilled and unskilled immigration on the pro-redistribution attitudes of the most educated natives (Panel C). I also find similar significant effects among medium-skill natives with upper secondary education, as expected by the theory. I find insignificant impacts on the least educated natives,possibly because the labor market effects and the fiscal leakage effects run in opposite directions.

With respect to attitudes towards further immigration, IV estimates are not precise enough to infer any conclusive results. However, as I have discussed in section 4.2, potential confounding factors are,

30. However, I do not find the expected positive effect of skilled immigration on unskilled natives readiness to accept further immigrants

31. Dustmann et al. (2013) calls this phenomenon immigrants' "downgrading"

if anything, likely to generate positive biases in the OLS estimates of the effect of immigration on pro-immigrants attitudes. Since most of the OLS estimates point to a negative effect of migration inflows, this means that unbiased effects are likely even more negative. The only positive coefficient I find concerns the effect of unskilled immigration on medium-skill natives. Yet unskilled migration is also found to have a negative effect on pro-immigrant opinions of low-skill natives. It is hard to think of potential omitted factors generating biases of opposite signs in different sample of respondents. I am therefore confident that OLS estimates provide the correct directions of the causal effects of immigration on natives' attitudes towards immigrants.

Robustness check : within country-year estimates

To test the robustness of the results, I go back to OLS estimates without using the instrument. Estimates of the within country-year specification (eq. 20) are presented in table 11 in appendix. Results are generally consistent with previous findings. [32] With respect to support fo redistribution, I find similar effects on tertiary educated native : significant negative impacts of unskilled immigration and significant positive impacts of skilled immigration (column 3). Effects on unskilled natives turn out to be insignificant. With respect to attitudes in favor of allowing more immigrants (column 6 and 9 and 12), I find again significant positive and negative effects of respectively unskilled and skilled immigration on medium-skilled natives. The effect of unskilled immigration on pro-immigrant attitudes of high-skilled natives become now significantly positive. The effect of skilled immigration remains significant negative. These results provide further evidence of a predominant role of labor market concerns.

5.2 Further evidence of the welfare state channel among retired natives

I follow Scheve and Slaughter (2001b) and Mayda (2006) and run regressions on the subsample of ESS respondents who are born before 1940 and are most likely retired in the 2000s. Since these older individuals are out of the labor force, I expect to see no significant effects of immigration if natives' attitudes towards redistribution and towards further immigration are purely driven by labor-market causes. Table 8 presents estimates pointing to the opposite finding. In line with natives' concerns about the fiscal effects of immigration, I find significant positive (partial) effects of skilled migration and significant negative (partial) effects of unskilled migration on average support for redistribution. Older natives with tertiary education favor more (or disfavor less) redistribution when skilled migrants are coming in and favor less redistribution when unskilled migrants arrive. Tertiary educated natives also increase their opposition to immigration when unskilled migrants are coming in, which is again consistent with worries about the net fiscal burden. Least skilled natives seem also to resist more unskilled immigration. Taken together, these results provide suggestive evidence that natives' attitudes towards redistribution and immigration are partly driven by concerns about the net fiscal effects of immigration.

32. The number of observation is lower because countries which are composed of only one NUTS region are not used in the regression

5.3 Further evidence of labor market effects within occupation

I further examine the role of labor market competition in shaping the effects of immigration on natives' attitudes. I use a more precise measure than schooling levels to assess to degree of competition between native and immigrant workers. To determine who competes with whom, I simply assume that labor markets are stratified along occupation lines and that individuals working in the same occupation are perfect substitutes with each other regardless of their national origin. I then investigate how an increase in the number of foreign-born workers employed in a given occupation affects opinions of native-born workers in the same occupation.

Using the European Labor Force Survey (ELFS), I measure the extent of competition between natives and recent immigrants within 26 different occupations p (ISCO88 2 digits), within each country j at time t by :

$$\Pi_{jt}^{p} = \frac{\text{Recent immigrants working in occupation } p \text{ at time } t \text{ arrived in country } j \text{ since 2002}}{\text{Native population in occupation } p \text{ at time } t \text{ in country } j}$$

By definition this measure sets the degree of competition at zero in 2002 for each occupation in each country since $\Pi_{j,2002}^{p} = 0$. In the European Social Survey (ESS), each respondent who work during the week before the survey is asked to report his type of occupation using the same classification– 26 categories defined by ISCO88 – as in the ELFS survey. This allows to combine ELFS and the ESS data at the occupation-country-year level. Table 12 in appendix provides the distribution of native and foreign workers across occupations. Relative to natives, recents immigrants in Europe are over-represented in elementary occupations such as sales and services (e.g. domestic helpers), agriculture (e.g. farm hands) or construction or manufacturing, and under-represented in high-skill occupations (e.g. managers, professionals). The occupational distribution of immigrants relative to natives substantially differs across countries of destination. In Spain, recent immigrants are disproportionally employed in low-skill occupations such as services, construction or the agricultural sector in which one out of three workers is foreign-born in 2012 (while only 10% of the labor force is foreign). In contrary, new immigrants in the U.K are less concentrated in lower occupations and tend to compete with natives in intermediate jobs (e.g. as stationary plant and machine operators) and even in higher occupations (e.g. as health professionals).

To estimate the effects of immigration, I exploit the variation in the occupational distribution of foreign workers across labor markets and over time. Following the literature on the labor market effects of immigration (Borjas, 2003, 2006), I estimate the following specification :

$$y_{ijpt} = \alpha\Pi_{jt}^{p} + X_{it}\lambda + \delta_{c(i)} + \delta_j + \delta_p + \delta_t + (\delta_j * \delta_p) + (\delta_j * \delta_t) + (\delta_p * \delta_t) + \varepsilon_{ijpt} \tag{21}$$

where y_{ijpt} is the attitude towards redistribution (or towards immigrants) of a native individual i working in occupation p in country j at time t. X_{it} is the same matrix of individual socio-demographic characteristics of respondent i and $\delta_{c(i)}$ is the same vector of "cohort" fixed effects as in equation 15. More importantly, the regression includes vectors of, respectively, occupation, country and year fixed effects δ_j, δ_p and δ_t, which control for differences in natives' attitudes accros occupations, countries and over time. The interaction $\delta_j * \delta_p$ indicates that the coefficient of interest α is identified from changes in

natives' opinions that happen over time within the same occupation in the same country. The interaction terms $\delta_p * \delta_t$ and $\delta_j * \delta_t$ control for changes in natives's attitudes over time that are specific to each occupation p and each country j. Standard errors are clustered at the occupation-country-year level.

To understand which source of variation exploits the estimation of α, consider that the data only includes two countries j_1 and j_0 and two professions p_1 and p_0 in two years 2002 and 2012. Denoting $\overline{\Delta}$ the average difference over time between 2012 and 2002 and recalling that $\Pi^p_{j,2002} = 0$, then the point-estimate of α would be

$$\frac{(\overline{\Delta}y_{j_1p_1} - \overline{\Delta}y_{j_1p_0}) - (\overline{\Delta}y_{j_0p_1} - \overline{\Delta}y_{j_0p_0})}{(\Pi^{p_1}_{j_1,2012} - \Pi^{p_0}_{j_1,2012}) - (\Pi^{p_1}_{j_0,2012} - \Pi^{p_0}_{j_0,2012})}$$

Such triple difference estimator correlates the variation across countries in the difference in (over-time changes in) attitudes between occupations with the same cross-country cross-occupation over-time variation in immigration inflows.

Table 9 reports the results of the estimations. Column 1 suggests that native workers favor higher level of redistribution in response to tighter competition within occupation. The estimated coefficient suggests that a 10% increase in the migrants to natives ratio within an occupation increases pro-redistribution attitudes among natives employed in the same occupation by about 1.4%. Such findings is consistent with the model in section 2 in which natives want higher social benefits to be compensated for negative effects on their wages. In column 2, 3 and 4 I look at the effect of immigrant inflows on natives' willingness to allow more immigrants in the country. I find that natives significantly increase their opposition to immigration when more recent immigrants work in the same occupation. I find similar negative effects irrespective of whether immigrants are of same or different race than natives or whether they come from poorer non-EU countries. Opposition to immigration seems however slightly less significant against immigrants from a different race possibly because natives perceive the latter as representing a lower "threat" to their jobs.

One could argue that an individual's occupation is subject to choice, and thus potentially endogenous. Individuals that particularly dislike immigrants may search more intensively for jobs and occupations with few immigrants. This would generate an upward bias in the estimates of the effects of immigration on pro-immigrants attitudes. Since the estimates point to significant negative effects, this means that unbiased effects are even more negative. Another difficulty is that occupation are only observed for those who work : inactive and unemployed individuals are excluded from the regression sample. Admittedly, immigration may reduce natives' employment and might generate sample selection. Yet, there is no evident reasons why natives being the most at risk to become unemployed (or stay out of employment) should have systematically different attitudes towards immigrants (or towards redistribution) than other natives. If anything, one may think that natives who are the most exposed to competition hold the most anti-immigrant and the most pro-redistribution views. Again, this would create biases in opposite directions than the effects I find. I am thus confident to obtain the correct signs of the causal effects of immigration.

6 Discussion and Conclusion

In this paper, I have developed a simple theoretical framework to study how immigrant inflows may affect individual attitudes towards redistribution and immigration policy. I have highlighted that natives' attitudes depend on how immigration affects the Welfare State's budget and wages (or employment) in the labor market. My empirical analysis combines rich data on individual attitudes with regional level variation in immigrant inflows across 19 different countries over the past decade 2012-2002.

I find that natives, either skilled or unskilled, support more redistribution when skilled immigrants are coming in, but favor less redistribution when unskilled immigrants are coming in. When unskilled immigration increases, low-skilled natives oppose more immigration while high-skilled natives tend to oppose less. Conversely, when skilled immigration increases, high-skilled natives resist more immigration while low-skilled natives' resistance remains the same (or even declines). Further analysis also indicate that retired natives out of the labor force want less redistribution and less immigration when unskilled immigration increases. Native workers seem also to favor more redistribution and less immigration when the number of foreign workers in the same occupation increases. Taken together, these results provide strong evidence supporting the role of both welfare concerns and labor market concerns in determining individuals attitudes towards redistribution and immigration policy. They also suggest that labor market concerns may outweigh welfare concerns in determining the attitudes towards immigration of skilled workers They also indicate that welfare concerns may dominate labor market concerns in shaping the preferences for redistribution of unskilled tax payers.

These results suggest that future analyses of the impact of immigration on preferences towards redistribution should take into account the economic characteristics of the immigrant population (e.g. skills). My findings reveal that they do play an important role in shaping preferences for redistribution, which goes beyond the effects of ethnic or cultural diversity on which most of the literature has so far focused on. My result also demonstrate that attitudes towards immigration do change over time and that immigrant inflows are one of key determinants of such changes. Specifically, I show that the (real or perceived) impacts of immigration on the economy in one period affect individual attitudes to immigration in the next period, and that these effects crucially depend on the skills of immigrants and the skills of natives. I believe that research into this area is likely to gain much insights by switching from a static to a dynamic approach.

Do attitudes matter ?

A final important question is whether public opinions about immigration translate into policy outcomes, which in turn determine the observed inflows of immigrants. In line with Facchini and Mayda (2008). I find preliminary evidence suggesting that the answer is yes. Figure **??** in Appendix presents cross-country correlations between the percentage of ESS respondents in favor of allowing more immigrants and the actual observed inflows of immigrants. [33] Panel (a) shows that countries where, in 2002, public opinions (of natives) were more open to further immigration tended to host more immigrants in the subsequent period 2002-2010. Of course, this correlation may not be causal. Initial stocks of im-

33. Ideally I would like to use data characterizing migration policies and host country demand for immigrants. In the absence of such data, I use observed inflows which depend also on the supply of immigrants, i.e. decisions to out-migrate. The average of pro-immigrant attitudes is supposed to proxy for the preferences of the median voter

migrants (in 2002) are likely to facilitate further subsequent inflows (through migration networks) and to have reduced perceptions of ethnic threat and anti-immigrants sentiments. To get closer to a causal interpretation, I examine in panel (b) the variation in attitudes between 2002 and 2010 and the inflows of immigrants in the subsequent period 2010-2012. I find that countries where opposition to immigration have dwindled the more have hosted the more immigrants in the following years. Reverse causality is unlikely for two reasons. First, it is hard to think that inflows after 2012 have causal retrospective impacts on attitudes before 2012. Second, even if immigrant inflows are serially correlated over time, panel (c) suggests that, if anything, immigrant inflows tend to increase concomitant anti-immigrants sentiments. This simple exercice certainly suffers from many limitations though. [34] I leave a further analysis of this important issue for future research.

34. For example, omitted variables such as GDP growth may account for the relationship observed in panel (b). Better economic conditions attract more immigrants and soften anti-immigrants views.

Références

Adams, R. H. J. (1993). The economic and demographic determinants of international migration in rural Egypt. *Journal of Development Studies 30*(1), 146–167.

Ai, C. and E. C. Norton (2003). Interaction terms in logit and probit models. *Economics Letters 80*, 123–129.

Akerlof, G. A. and R. E. Kranton (2000). Economics and identity. *The Quarterly Journal of Economics CXV*, 715–753.

Alesina, A., R. Baqir, and W. Easterly (1999). Public goods and ethnic divisions. *Quarterly Journal of Economics 114*, 1243–1284.

Alesina, A., R. Baqir, and W. Easterly (2000). Redistributive public employment. *Journal of Urban Economics 48*, 219–241.

Alesina, A. and E. L. Ferrara (2001). Preferences for redistribution in the land of opportunities. National Bureau of Economic Research Working Paper No. 8267.

Alesina, A. and P. Giuliano (2015). Culture and institutions. *Journal of Economic Literature*. forthcoming.

Alesina, A. and E. Glaeser (2004). *Fighting Poverty in the U.S. and in Europe : A World of Difference*. New York : Oxford University Press.

Alesina, A., E. Glaeser, and B. Sacerdote (2001). Why doesn't the u.s. have a european- style welfare system ? *Brookings Papers on Economic Activity 2*, 187–278.

Alesina, A., J. Harnoss, and H. Rapoport (2014). Immigration, attitudes to redistribution and the future of the welfare state in europe. Working Paper.

Alesina, A. and E. La Ferrara (2005a). Ethnic diversity and economic performance. *Journal of Economic Literature 43*, 762–800.

Alesina, A. and E. La Ferrara (2005b). Preferences for redistribution in the land of opportunities. *Journal of Public Economics 89*, 897–931.

Alesina, A., R. D. Tella, and R. MacCulloch (2001). Inequality and happiness : Are Europeans and Americans different ? National Bureau of Economic Research Working Paper No. 8198.

Altonji, J. G. and D. Card (1991). The effects of immigration on the labor market outcomes of less-skilled natives. In *Immigration, trade, and the labor market*, pp. 201–234. University of Chicago Press.

Amegashie, J. A. (2004). A political economy model of immigration quotas. *Economics of Governance 5*, 255–267.

Anderson, E. Skilled worker mobility and wage inequality.

Angrist, J. D. and A. D. Kugler (2001). Protective or counter-productive ? European labor market institutions and the effect of immigrants on EU natives. National Bureau of Economic Research Working Paper No. 8660.

Ansolabehere, S., J. de Figueredo, and J. Snyder (2003). Why is there so little moeny in US politics ? *Journal of Economic Perspectives 17*, 105–130.

Baldwin, R. E. and C. S. Magee (1998). Is trade policy for sale ? Congressional voting on recent trade bills. National Bureau of Economic Research Working Paper No. 6376.

Balistreri, E. J. (1997). The performance of the Heckscher-Ohlin Vanek model in predicting endogenous policy forces at the individual level. *Canadian Journal of Economics 30*(1), 1–17.

Bank, W. (2001). World development indicators. CD-ROM.

Barrett, D. B. (1982). *World Christian Encyclopedia*. Oxford University Press.

Barro, R. and J. Lee (2000). International data on educational attainment. Data Set.

Barro, R. J. and R. M. McCleary (2002). Religion and political economy in an international panel. National Bureau of Economic Research Working Paper No. 8931.

Bartel, A. P. (1989). Where do the new us immigrants live ? *Journal of Labor Economics*, 371–391.

Bauer, T. K., M. Lofstrom, and K. F. Zimmermann (2000). Immigration policy, assimilation of immigrants and natives' sentiments towards immigrants : Evidence from 12 OECD countries. IZA Discussion Paper No. 187.

Beaulieu, E. (1996). Who supported the Canada-U.S. free trade agreement : Factor or industry cleavages in trade policy ? University of Calgary, unpublished paper.

Beaulieu, E. and C. S. Magee (2001). Campaign contributions and trade policy : New tests of Stolper-Samuelson. University of Calgary, unpublished paper.

Beaulieu, Eugene, M. B. and J. Gaisford (2001). Intra-industry trade liberalization : Why skilled workers everywhere resist protectionism. University of Calgary, unpublished paper.

Bellettini, G. and C. Berti Ceroni (2006). Can unions hurt workers ? A positive analysis of immigration policy. Mimeo, University of Bologna.

Benhabib, J. (1996). On the political economy of immigration. *European Economic Review 40*, 1737–1743.

Bennedsen, M. and S. E. Feldman (2006). Informational lobbying and political contributions. *Journal of Public Economics 90*, 631–656.

Bernheim, B. D. and M. D. Whinston (1986). Menu auctions, resource allocation, and economic influence. *Quarterly Journal of Economics 101*, 1–31.

Berry, R. A. and A. Soligo (1969a). Some welfare effects of international migration. *Journal of Political Economy 77*, 778–794.

Berry, R. A. and R. Soligo (1969b). Some welfare aspects of international migration. *Journal of Political Economy 77*, 778–794.

Bhagwati, J. N., A. Panagariya, and T. N. Srinivasan (1998). *Lectures on International Trade*. Cambridge, Massachusetts : The MIT Press.

Bilal, S., J.-M. Grether, and J. de Melo (1998). Determinants of attitudes towards immigration : A trade-theoretic approach. Center for Economic Policy Research Discussion Paper No. 1877.

Blanchflower, D. and A. Oswald (2004). Well-being over time in Britain and the USA. *Journal of Public Economics 88*, 1359–1386.

Blanchflower, D. G. (2007). International patterns of union membership. *British Journal of Industrial Relations 45*, 1–28.

Blanchflower, D. G. and A. J. Oswald (2000). Well-being over time in Britain and the USA.

Boeri, T. (2010). Immigration to the land of redistribution. *Economica 77*(308), 651–687.

Boeri, T., A. Brugiavini, and L. Calmfors (Eds.) (2001). *The role of Unions in the twenty first century*. Oxford and New York : Oxford University Press.

Boeri, T., G. Hanson, and B. McCormick (2002). *Immigration policy and the welfare system*. Oxford OX2, 6DP : Oxford University Press.

Bombardini, M. (2005). Firm heterogeneity and lobby participation. Mimeo, University of British Columbia.

Borjas, G. and B. Bratsberg (1996). Who leaves ? The outmigration of the foreign-born. *Review of Economics and Statistics 78*(1), 165–176.

Borjas, G. J. (1987). Self selection and the earnings of immigrants. *American Economic Review 77*, 531–553.

Borjas, G. J. (1994). The economics of immigration. *Journal of Economic Literature*, 1667–1717.

Borjas, G. J. (1995). The economic benefits from immigration. *Journal of Economic Perspectives 9*(2), 3–22.

Borjas, G. J. (1999a). The economic analysis of immigration. In O. C. Ashenfelter and D. Card (Eds.), *Handbook of labor economics*, pp. 1697–1760. Amsterdam : North-Holland.

Borjas, G. J. (1999b). *Heaven's Door : Immigration Policy and the American Economy.* Princeton, N.J. : Princeton University Press.

Borjas, G. J. (2003). The labor demand curve is downward sloping : Reexamining the impact of immigration on the labor market. *The Quarterly Journal of Economics 40*, 1335–1374.

Borjas, G. J. (2006). Native internal migration and the labor market impact of immigration. *Journal of Human resources 41*(2), 221–258.

Borjas, G. J., R. B. Freeman, and L. F. Katz. (1996). Searching for the effect of immigration on the labor market. *The American Economic Review 86*(2), 247–251.

Borjas, G. J., R. B. Freeman, and L. F. Katz. (1997). How much do immigration and trade affect labor market outcomes ? *Brookings Papers on Economic Activity 1*, 1–90.

Borjas, G. J. and L. Hilton (1996). Immigration and the welfare state : Immigrant participation in means-tested entitlement programs. *Quarterly Journal of Economics 111*, 575–604.

Bridges, S. and S. Mateut (2014). Should they stay or should they go ? attitudes towards immigration in europe. *Scottish Journal of Political Economy 61*(4), 397–429.

Briggs, V. J. (1998). Income disparity and unionism : The workplace influences of post-1995 immigration policy. In J. A. Auerbach and R. S. Belous (Eds.), *The Inequality Paradox : Growth of Income Disparity*, pp. 112–132. National Policy Association.

Briggs, V. L. (2001). *Immigration and American Unionism*. Ithaca, NY : Cornell University Press.

Brücker, H., G. S. Epstein, B. McCormick, G. Saint-Paul, A. Venturini, and K. Zimmermann (2002). Managing migration in the European welfare state. In T. Boeri, G. Hanson, and B. McCormick (Eds.), *Immigration Policy and the Welfare System*. Oxford : Oxford Economic Press.

Brueckner, J. K. (2000). Welfare reform and the race to the bottom : Theory and evidence. *Southern Economic Journal*, 505–525.

Campos, N. and F. Coricelli (2002). Growth in transition. *Journal of Economic Literature 40*, 793–836.

Caplan, B. (2002). Systematically biased beliefs about economics. *Economic Journal 112*, 433–458.

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

Card, D. (2005). Is the new immigration really so bad ?*. *The Economic Journal 115*(507), F300–F323.

Casarico, A. and C. Devillanova (2003). Social security and migration with endogenous skill upgrading. *Journal of Public Economics 87*, 773–797.

Chamberlain, G. (1984). Panel data. In Z. Griliches and M. Intriligator (Eds.), *Handbook of Econometrics*, pp. 1247–1318. Amsterdam : North-Holland.

Chatterjee, S. and A. S. Hadi (2015). *Regression analysis by example*. John Wiley &amp ; Sons.

Chiswick, B. R. and T. J. Hatton (2002). International migration and the integration of labour markets. In *Globalization in Historical Perspective.* Chicago : The University of Chicago Press.

Citrin, J., D. Green, C. Muste, and C. Wong. (1997). Public opinion toward immigration reform : The role of economic motivation. *The Journal of Politics 59*(3), 858–881.

Clark, X., T. J. Hatton, and J. G. Williamson (2002). Where do U.S. immigrants come from, and why ? National Bureau of Economic Research Working Paper No. 8998.

Coppel, J., J.-C. Dumont, and I. Visco (2001). Trends in immigration and economic consequences. OECD Economics Department Working Papers No. 284.

Cortes, P. (2008). The effect of low-skilled immigration on us prices : evidence from cpi data. *Journal of political Economy 116*(3), 381–422.

Dahlberg, M., K. Edmark, and H. Lundqvist (2012). Ethnic diversity and preferences for redistribution. *Journal of Political Economy 120*, 41–76.

Dahm, M. and N. Porteiro (2004). The carrot and the stick : Which is the lobbys' optimal choice ? Mimeo, Northwestern University.

Daveri, F. and G. Tabellini (2000). Unemployment and taxes : Do taxes affect the rate of unemployment ? *Economic Policy 15*, 48–104.

Davies, J. B. and I. Wooton (1992). Income inequality and international migration. *The Economic Journal 102*(413), 789–802.

Davis, D. R. and D. E. Weinstein (2002). Technological superiority and the losses from migration. National Bureau of Economic Research Working Paper No. 8971.

de Figueiredo, J. M. and B. S. Silverman (2006). The returns to lobbying : University lobbying efforts and the allocation of 'earmarked' academic grants. *Journal of Law and Economics 49*, 597–626.

Dixit, A., G. Grossman, and E. Helpman (1997). Common agency and coordination : General theory and application to goevrnment policy making. *Journal of Political Economy 105*, 752–769.

Dixit, A. and V. Norman (1980). *Theory of international trade*. Cambridge, UK : Cambridge University Press.

Docquier, F., A. Marfouk, et al. (2006). International migration by educational attainment, 1990-2000.

Dornbusch, R., S. Fischer, and P. Samuelson (1977). Comparative advantage, trade, and payments in a Ricardian model with a continuum of goods. *The American Economic Review 67*(5), 823–839.

Dustmann, C. and T. Frattini (2014). The fiscal effects of immigration to the uk. *Economic Journal 124*, F593–F643.

Dustmann, C., T. Frattini, and I. P. Preston (2013). The effect of immigration along the distribution of wages. *The Review of Economic Studies 80*(1), 145–173.

Dustmann, C. and I. Preston (2001). Attitudes to ethnic minorities, ethnic context, and location decisions. *Economic Journal 111*, 353–373.

Dustmann, C. and I. Preston (2004a). Is immigration good or bad for the economy ? Analysis of attitudinal responses. *Research in Labor Economics 24*, 3–34.

Dustmann, C. and I. Preston (2004b). Racial and economic factors in attitudes to immigration. Mimeo, UCL.

Dustmann, C. and I. Preston (2006). Is immigration good or bad for the economy ? analysis of attitudinal responses. *Research in Labor Economics 24*(1), 3–34.

Dustmann, C. and I. P. Preston (2007). Racial and economic factors in attitudes to immigration. *The BE Journal of Economic Analysis &amp ; Policy 7*(1).

Easterly, W., M. Kremer, L. Pritchett, and L. H. Summers (1993). Good policy or good luck ? Country growth performance and temporary shocks. *Journal of Monetary Economics 32*, 459–483.

Easterly, W. and M. Sewadeh (2002). Global development network growth database, Macro time series. World Bank. Data Set.

Eicher, T. and T. Osang (2002). Protection for sale : An empirical investingation. *American Economic Review 92*, 1702–1710.

Elmeskov, J., J. Martin, and S. Scarpetta (2005). Key lessons for labor market reforms : Evidence from oecd countries experiences. *Swedish Economic Policy Review forthcoming*.

Espenshade, T. J. and K. Hempstead (1996a). Contemporary American attitudes toward U.S. immigration. *International Migration Review 30*.

Espenshade, T. J. and K. Hempstead (1996b). Contemporary American attitudes toward U.S. immigration. *International Migration Review 30*(2), 535–570.

Facchini, G. (2004). The political economy of international trade and factor mobility : A survey. *Journal of Economic Surveys 18*, 1–31.

Facchini, G. and A. M. Mayda (2006a). From individual attitudes to migration policy. mimeo.

Facchini, G. and A. M. Mayda (2006b). Individual attitudes towards immigrants : Welfare state determinants across countries. CEPR WP 5702.

Facchini, G. and A. M. Mayda (2008). From individual attitudes towards migrants to migration policy outcomes : Theory and evidence. *Economic Policy 23*(56), 652–713.

Facchini, G. and A. M. Mayda (2009). Does the welfare state affect individual attitudes towards immigrants ? evidence across countries. *Review of Economics and Statistics 91*, 295–314.

Facchini, G., A. M. Mayda, and E. Murard (2015). Immigration and individual attitudes towards redistribution. Mimeo, Georgetown University.

Facchini, G., A. M. Mayda, and E. Murard (2016). *Elgar Handbook on Migration and Social Policy*, Chapter How does migration affect individual attitudes towards redistribution ? Empirical evidence across European countries. Edward Elgar publishers.

Facchini, G. and C. Testa (2006). Who is agains a common market ? Mimeo, Univeristy of Illinois at Urbana Champaign.

Facchini, G. and G. Willmann (2005a). The political economy of international factor mobility. *Journal of International Economics 67*, 201–219.

Facchini, G. and G. Willmann (2005b). The political economy of international factor mobility. forthcoming in Journal of International Economics.

Faini, R. (2001). Development, trade, and migration.

Faini, R. (2002). Discussion of "International migration and the integration of labor markets" by B. Chiswick and T. Hatton. In *Globalization in Historical Perspective.* Chicago, IL : The University of Chicago Press.

Faini, R. and A. Venturini (1994). Trade, aid and migrations. Some basic policy issues. *European Economic Review 37*, 435–442.

Feenstra, R. (2004). *Advanced International Trade : Theory and Evidence*. Princeton : Princeton University Press.

Feenstra, R. C. (2000). World trade flows, 1980-1997. Data CD included.

Findlay, R. and K. O'Rourke (2002). Commodity market integration 1500-2000. In A. Taylor and J. Williamson (Eds.), *Globalization in Historical Perspectives*. Chicago : University of Chiacago Press.

Findlay, R. and K. O'Rourke (2003). *Globalization in Historical Perspective*, Chapter 2, pp. 13–62. Chicago : University of Chicago Press.

Findlay, R. and S. Wellisz (1982). Endogenous tariffs, the political economy of trade restricitions and welfare. In J. Bhagwati (Ed.), *Import competition and response*, pp. 158–187. Chicago : University of Chicago Press.

Finseraas, H. (2008). Immigration and preferences for redistribution : An empirical analysis of european survey data. *Comparative European Politics 6*, 407–431.

Frankel, J. A. and D. Romer (1999). Does trade cause growth ? *The American Economic Review 89*, 379–399.

Freeman, G. (1992). Migration policy and politics in the receiving states. *International Migration Review 26*(4), 1144–1167.

Freeman, G. (1995). Modes of immigration politics in liberal democratic states. *International Migration Review 29*(4), 881–902.

Freeman, G. P. (1986). Migration and the political economy of the welfare state. *The Annals of the American Academy of Political and Social Science*, 51–63.

Freeman, R. B. (2006). People flows in globalization. *Journal of Economic Perspectives 20*, 145–170.

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

Friedberg, R. M. (2001). The impact of mass migration on the Israel labor market. *Quarterly Journal of Economics 116*, 1373–1408.

Gang, I. N., F. Rivera-Batiz, and M.-S. Yun (2002). Economic strain, ethnic concentration and attitudes towards foreigners in the European Union. IZA Discussion Paper No. 578.

Gawande, K. and U. Bandyopadhyay (2000). Is protection for sale ? Evidence on the Grossman–Helpman theory of endogenous protection. *Review of Economics and Statistics 82*, 139–152.

Gawande, K. and P. Krishna (2003). The political economy of trade policy : Empirical approaches. In E. Choi and J. Harrigan (Eds.), *Handbook of International Trade*, pp. 213–250. Blackwell Publishing.

Gawande, K., P. Krishna, and M. Olarreaga (2006). Lobbying competition over trade policy. NBER WP 11371.

Gerdes, C. (2011). The impact of immigration on the size of government : Empirical evidence from danish municipalities. *The Scandinavian Journal of Economics 113*, 74–92.

Gimpel, J. and J. Edwards (1999). *The Congressional Politics of Immigration Reform*. Boston, MA : Allyn and Beacon.

Glick, R. and A. Rose (2002). Does a currency union affect trade ? The time-series evidence. *European Economic Review 46*(6), 1125–1151.

Glied, S. and D. Sarkar (2005). The role of professional societies in regulating entry of skilled migrants : The american medical association. Mimeo, Columbia University School of Public Policy.

Goldberg, P. K. and G. Maggi (1999). Protection for sale : An empirical investigation. *American Economic Review 89*(5), 1135–55.

Goldberg, P. K. and N. Pavcnik (2003). The response of the informal sector to trade liberalization. *Journal of Development Economics 72*, 463–496.

Goldin, C. (1994). The political economy of immigration restriction in the United States, 1890 to 1921. In C. Goldin and G. Libecap (Eds.), *The Regulated Economy : A Historical Approach to Political Economy*, pp. 223–257. Chicago, IL : University of Chicago Press.

Goldin, I. and K. A. Reinert (2006). *Globalization for development : Trade, Capital, Aid, Migration, and Ideas*. Washington, DC : World Bank and Palgrave McMillan.

Goldsborough, J. (2000). Out–of–control immigration. *Foreign Affairs 79*, 89–101.

Gonzalez, L. and F. Ortega (2011). How do very open economies adjust to large immigration flows ? evidence from spanish regions. *Labour Economics 18*(1), 57–70.

Gould, D. M. (1994). Immigrant links to the home country : Empirical implications for U.S. bilateral trade flows. *The Review of Economics and Statistics 76*, 302–316.

Greene, W. H. (1997). *Econometric Analysis. Third Edition.* Prentice Hall.

Greene, W. H. (2000). *Econometric Analysis*. London : Prentice-Hall.

Greenwood, M. J. (1997). Internal migration in developed countries. In M. Rosenzweig and O. Stark (Eds.), *Handbook of Population and Family Economics, Vol. 1B*. Amsterdam : North-Holland.

Grossman, G. M. and E. Helpman (1994a). Protection for sale. *American Economic Review 84*, 833–850.

Grossman, G. M. and E. Helpman (1994b). Protection for sale. *The American Economic Review 84*(4), 833–850.

Grossman, G. M. and E. Helpman (1996). Electoral competition and special interest politics. *Review of Economic Studies 63*, 265–286.

Habyarimana, J., M. Humphreys, D. Posner, and J. Weinstein (2007). Why does ethnic diversity undermine public goods provision ? An experimental approach. *American Political Science Review 101*, 709–725.

Hainmueller, J. and M. J. Hiscox (2007a). Educated preferences : Explaining attitudes toward immigration in europe. *International Organization 61*(02), 399–442.

Hainmueller, J. and M. J. Hiscox (2007b). Educated preferences : Explaining attitudes toward immigration in Europe. *International Organization 61*, 399–442.

Hamilton, R. and J. Whalley (1984). Efficiency and distributional implications of global restrictions on labour mobility. *Journal of Development Economics 14*, 61–75.

Hanson, G. (2006). Illegal migration from Mexico to the United States. *Journal of Economic Literature forthcoming*.

Hanson, G. and C. Woodruff (2004). Emigration and educational attainment in Mexico.

Hanson, G. H. (2005). *Why does immigration divide America ? Public finance and political opposition to open borders*. Washington, D.C. : Institute for International Economics.

Hanson, G. H., K. Scheve, and M. Slaughter (2007). Public finance and individual preferences over globalization strategies. *Economics and Politics 19*, 1–33.

Hanson, G. H., K. Scheve, and M. J. Slaughter (2005). Individual preferences over high skilled immigration in the United States. Mimeo, University of California, San Diego.

Hanson, G. H. and A. Spilimbergo (2001). Political economy, sectoral shocks and border enforcement. *Canadian Journal of Economics 34*, 612–638.

Hatton, T. (2003). Explaining trends in UK immigration.

Hatton, T. J. and J. G. Williamson (2002). What fundamentals drive world migration ? NBER WP 9159.

Hatton, T. J. and J. G. Williamson (2003a). Demographic and economic pressure on emigration out of Africa. *Scandinavian Journal of Economics 105*, 465–482.

Hatton, T. J. and J. G. Williamson (2003b). What fundamentals drive world migration ? revised version of National Bureau of Economic Research Working Paper No. 9159, forthcoming in G. Borjas and J. Crisp (eds), Poverty, international migration and asylum, Palgrave-Macmillan.

Haupt, A. and W. Peters (2003). Public pension and voting over immigration. *Public Choice 95*, 403–413.

Helliwell, J. F. (1997). National borders, trade and migration. National Bureau of Economic Research Working Paper No. 6027.

Helliwell, J. F. (1998). *How Much Do National Borders Matter ?*, Chapter 5, pp. 79–91. Brookings Institution Press.

Helpman, E. (1997). Politics and trade policy. In D. M. Kreps and K. F. Wallis (Eds.), *Advances in Economics and Econometrics : Theory and Aplpications*, Volume 1, pp. 19–45. Cambridge.

Heston, A., D. A. Nuxoll, R. Summers, and B. Aten (1995). Penn World Table version 5.6a. Data Set.

Heston, A., R. Summers, and B. Aten (2002). Penn World Table version 6.1. Center for International Comparisons at the University of Pennsylvania (CICUP). Data Set.

Hoddinott, J. (1994). A model of migration and remittances applied to Western Kenya. *Oxford Economic Papers 46*, 459–476.

ILO (1988). *ISCO-88 International Standard Classification of Occupations.* International Labour Organization.

ILO (1998). International labour migration database. International Labor Organization.

Inglehart, R. (2000). World values surveys and European values surveys, 1981-1984, 1990-1993, and 1995-1997 [computer file]. ICPSR version. Institute for Social Research [producer], 2000. Inter-university Consortium for Political and Social Research [distributor], 2000.

Irwin, D. A. (1994). The political economy of free trade : Voting in the British general elections of 1906. *Journal of Law and Economics 37*, 75–108.

Irwin, D. A. (1996). Industry or class cleavages over trade policy ? Evidence from the British general election of 1923. In G. M. G. Robert C. Feenstra and D. A. Irwin (Eds.), *The Political Economy of Trade Policy : Papers in Honour of Jagdish Bhagwati*, pp. 53–75. Cambridge : The MIT Press.

Irwin, D. A. (2002). *Free Trade Under Fire*. Princeton : Princeton University Press.

ISSP (1995). National-identity data set. International Social Survey Programme.

Jenks, R. (1992). *Immigration and Nationality Policies of Leading Migration Nations.* Washington, DC : Center for Immigration Studies.

Jofre-Monseny, J., P. Sorribas-Navarro, and J. Vazquez-Grenno (2013a). Immigration and local spending in social services : Evidence from a massive immigration wave. IEB Working-Paper.

Jofre-Monseny, J., P. Sorribas-Navarro, and J. Vazquez-Grenno (2013b). Spending in social services and ethnic heterogeneity : Evidence from a massive immigration wave. Mimeo, University of Barcelona.

Jones, C. I. (1997). On the evolution of the world income distribution. *Journal of Economic Perspectives 11*, 19–36.

Jones, R. W. (1965). The structure of simple general equilibrium models. *The Journal of Political Economy 73*, 557–572.

Joppke, L. (1998). Why liberal states accept unwanted immigration. *World Politics 50*, 266–293.

Jovell, R. and al. (2003). European social survey 2003 : Technical report. Mimeo, Centre for Comparative Social Studies, City University of London.

Karemera, D., V. I. Oguledo, and B. Davis (2000). A gravity model analysis of international migration to North America. *Applied Economics 32*(13), 1745–1755.

Katz, L. F. and K. M. Murphy (1992). Changes in relative wages, 1963-1987 : Supply and demand factors. *The Quarterly Journal of Economics 107*, 35–78.

Kessler, A. (2001). Immigration, economic insecurity, and the "ambivalent" American public. The Center for Comparative Immigration Studies Working Paper No. 41.

Krieger, T. (2005). *Public Pensions and Immigration : A public policy approach*. Cheltenham, UK : Edward Elgar.

Lahav, G. (2004). Public opinion toward immigration in the european union does it matter ? *Comparative Political Studies 37*(10), 1151–1183.

Leamer, E. E. and J. Levinsohn (1995). International trade theory : The evidence. In G. Grossman and K. Rogoff (Eds.), *Handbook of International Economics, Vol. III*, Chapter 26, pp. 1339–1394. Elsevier Science B.V.

Lohmann, S. (1995). Information, access and contributions : A signalling model of lobbying. *Public Choice 85*, 267–284.

Lopez, R. and M. Schiff (1998). Migration and the skill composition of the labor force : The impact of trade liberalization in LDCs. *Canadian Journal of Economics*, 318–336.

Lundborg, P. and P. S. Segerstrom (2002). The growth and welfare effects of international mass migration. *Journal of International Economics 56*, 177–204.

Luttmer, E. (2001). Group loyalty and the taste for redistribution. *Journal of Political Economy 109*, 500–528.

Magee, C. S. (1978). Three simple tests of the Stolper-Samuelson theorem. In P. Oppenheimer (Ed.), *Issues in International Economics*. Stockfield : Oriel Press.

Martin, P. (2004). Copenhagen challenge paper on population and migration.

Massey, D. S., J. Arango, G. Hugo, A. Kouaouci, A. Pellegrino, and J. Taylor (1993). Theories of international migration : A review and appraisal. *Population and Development Review 19*, 431–466.

Mayda, A. M. (2006). Who is against immigration ? A cross-country investigation of individual attitudes toward immigrants. *Review of Economics and Statistics 88*, 510–530.

Mayda, A. M. (2010). International migration : A panel data analysis of the determinants of bilateral flows. *Journal of Population Economics 23*(4), 1249–1274.

Mayda, A. M., K. O'Rourke, and R. Sinnott (2012). Risk, government and globalization : International survey evidence. Mimeo, Georgetown University.

Mayda, A. M. and K. Patel (2004). OECD countries migration policies changes. Appendix to International Migration : A Panel Data Analysis of Economic and Non-Economic Determinants, by Anna Maria Mayda. http ://www.georgetown.edu/faculty/amm223/.

Mayda, A. M. and D. Rodrik (2005). Why are some people (and countries) more protectionist than others ? *European Economic Review 49*, 1393–1430.

Mayer, W. (1981). Theoretical considerations on negotiated tariff adjustments. *Oxford Economic Papers 33*, 135–153.

Mayer, W. (1984). Endogenous tariff formation. *The American Economic Review 74*, 970–985.

Mazza, I. and F. van Winden (1996). A political economic analysis of labor migration and income redistribution. *Public Choice 88*, 333–363.

Mendoza, E., A. Razin, and L. Tesar (1994). Effective tax rates in macroeconomics : Cross country estimates of tax rates on factor income and consumption. *Journal of Monetary Economics 34*, 297–323.

Meuleman, B., E. Davidov, and J. Billiet (2009). Changing attitudes toward immigration in europe, 2002–2007 : A dynamic group conflict theory approach. *Social Science Research 38*(2), 352–365.

Midford, P. (1993). International trade and domestic politics : Improving on Rogowski's model of political alignments. *International Organization 47*(4), 535–564.

Milesi–Ferretti, G. M., E. Mendoza, and P. Asea (1997). On the ineffectiveness of tax policy in altering long run growth : Harberger superneutrality conjecture. *Journal of Public Economics 66*, 99–126.

Milyo, J., D. Primo, and T. Groseclose (2000). Corporate PAC campaign contributions in perspective. *Business and Politics 2*, 75–88.

Mirrlees, J. A. (1971). An exploration in the theory of optimum income taxation. *Review of Economic Studies 38*, 175–208.

Mishra, P. (2003). Emigration and wages in source countries : Evidence from Mexico. Columbia University, dissertation chapter.

Mitra, D. (1999). Endogenous lobby formation and endogenous protection : A long-run model of trade policy determination. *American Economic Review 89*(5), 1116–34.

Money, J. (1997). No vacancy : The political geography of immigration control in advanced industrial countries. *International Organization 51*, 685–720.

Murard, E. (2011). Identity, immigration, and preferences for redistribution : Empirical evidence from german reunification. Mimeo, Paris School of Economics.

Neter, J., M. H. Kutner, C. J. Nachtsheim, and W. Wasserman (1996). *Applied linear statistical models*, Volume 4. Irwin Chicago.

Obstfeld, M. and A. Taylor (2003). *Globalization in Historical Perspective*, Chapter 2, pp. 121–183. Chicago : University of Chicago Press.

Obstfeld, M. and A. M. Taylor (2002). Globalization and capital markets. In A. M. Taylor and J. G. Williamson (Eds.), *Globalization in Historical Perspective*. Chicago : University of Chicago Press.

OECD (1997). International migration statistics for OECD countries. Data set.

OECD (1998). *The Tax/Benefit Position of Employees : 1995-1996*. Paris : OECD.

OECD (2000). *Migration and Regional Economic Integration in Asia*. Paris : OECD.

OECD (2001). The employment of foreigners : Outlook and issues in OECD countries. In *OECD Employment Outlook*, Chapter 5. Paris : OECD.

Olson, M. (1965). *The Logic of Collective Action*. Harvard University Press.

O'Rourke, K. H. and R. Sinnott (2001). What determines attitudes towards protection ? Some cross-country evidence. In S. M. Collins and D. Rodrik (Eds.), *Brookings Trade Forum 2001*, pp. 157–206. Brookings Institute Press.

O'Rourke, K. H. and R. Sinnott (2006). The determinants of individual attitudes towards immigration. *European Journal of Political Economy 22*, 838–861.

Ortega, F. (2004). Immigration policy and skill upgrading. forthcoming in Journal of Public Economics.

Ortega, F. (2005). Immigration policy and skill upgrading. *Journal of Public Economics 89*, 1841–1863.

Ortega, F. and J. G. Polavieja (2012). Labor-market exposure as a determinant of attitudes toward immigration. *Labour Economics 19*(3), 298–311.

Pavcnik, N. and P. Goldberg (2003). The response of the informal sector to trade liberalization. *Journal of Development Economics 72*, 463–496.

Pedersen, P. J., M. Pytlikova, and N. Smith (2004). Selection or network effects ? Migration flows into 27 OECD countries, 1990-2000. IZA Discussion Paper 1104.

Pritchett, L. (2003). The future of migration. *Yale Global Online*.

Pritchett, L. (2006). The future of migration : Accomodating irresistible forces and immovable ideas. mimeo.

Pritchett, L. and L. H. Summers (1996). Wealthier is healthier. *The Journal of Human Resources 31*(4), 841–868.

Putnam, R. D. (1995). Bowling alone : America's declining social capital. *Journal of democracy 6*(1), 65–78.

Ramcharan, R. (2007). Does the exchange rate regime matter for real shocks ? Evidence from windstorms and earthquakes. *Journal of International Economics 73*, 31–47.

Ravenstein, E. (1885). The laws of migration. *Proceedings of the Royal Statistical Society XLVII*(2), 167–235.

Razin, A. and E. Sadka (1999). Migration and pension with international capital mobility. *Journal of Public Economics 74*, 141–150.

Razin, A. and E. Sadka (2001). *Labor, Capital, and Finance International Flows*. Cambridge, UK : Cambridge University Press.

Razin, A., E. Sadka, and B. Suwankiri (2011). *Migration and the Welfare State : Political-Economy Policy Formation*. MIT Press.

Razin, A., E. Sadka, and P. Swagel (2002). Tax burden and migration : A political economy theory and evidence. *Journal of Public Economics 85*, 167–190.

Razin, A. and J. Wahba (2015). Welfare magnet hypothesis, fiscal burden and immigration skill selectivity. *The Scandinavian Journal of Economics*. forthcoming.

Rendall, M. S., C. Tomassini, and D. J. Elliot (2004). Estimation of annual international migration from the labour force surveys of the united kingdom and the continental european union. *STATISTICAL JOURNAL-UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE 20*, 219–234.

Riley, N. (1997). Determinants of union membership : A review. *Labour 11*, 265–301.

Rodrik, D. (1995). Political economy of trade policy. In G. Grossman and K. Rogoff (Eds.), *Handbook of International Economics, Vol.3*, Chapter 28, pp. 1457–1494. The Netherlands : North-Holland Elsevier Science.

Rodrik, D. (1997). *Has Globalization Gone Too Far ?* Washington, DC : Institute for International Economics.

Rodrik, D. (1998). Why do more open economies have bigger governments ? *Journal of Political Economy 106*, 997–1032.

Rodrik, D. (2001). Comments at the conference on "Immigration policy and the welfare state", Trieste, 2001.

Rodrik, D. (2002). Comments at the conference on "Immigration Policy and the Welfare State". In T. Boeri, G. H. Hanson, and B. McCormick (Eds.), *Immigration Policy and the Welfare System*. Oxford University Press.

Rogowski, R. (1987). Political cleavages and changing exposure to trade. *American Political Science Review 81*(4), 1121–1137.

Rogowski, R. (1989). *Commerce and Coalitions*. Princeton : Princeton University Press.

Rosenzweig, M. R. (2004). Copenhagen opposition paper on population and migration.

Rosenzweig, M. R. and O. Stark (Eds.) (1997). *Handbook of Population and Family Economics*. The Netherlands : North-Holland Elsevier Science.

Scarpetta, S. (1996). Assessing the role of labor market policies and institutional settings on unemployment : A cross-country study. *OECD Economic Studies 26*(1).

Scheve, K. F. and M. J. Slaughter (2001a). *Globalization and the Perceptions of American Workers*. Washington, DC : Institute for International Economics.

Scheve, K. F. and M. J. Slaughter (2001b). Labor market competition and individual preferences over immigration policy. *Review of Economics and Statistics 83*, 133–145.

Scheve, K. F. and M. J. Slaughter (2001c). What determines individual trade-policy preferences ? *Journal of International Economics 54*, 267–292.

Scholten, U. and M. Thum (1996). Public pension and immigration policy in a democracy. *Public Choice 66*, 347–361.

Schwartz, A. (1973). Interpreting the effect of distance on migration. *The Journal of Political Economy 81*, 1153–1169.

Semyonov, M., R. Raijman, and A. Gorodzeisky (2008). Foreigners' impact on european societies public views and perceptions in a cross-national comparative perspective. *International Journal of Comparative Sociology 49*(1), 5–29.

Senik, C., H. Stichnoth, and K. Van der Straeten (2009). Immigration and natives ? attitudes towards the welfare state : Evidence from the european social survey. *Social Indicators Research 91*, 345–370.

Smith, J. P. and B. Edmonston (Eds.) (1997). *The New Americans. Economic, Demographic, and Fiscal Effects of Immigration.* Washington, D.C. : National Research Council, National Academy Press.

Smith, J. P. and B. Edmonston (Eds.) (1998). *The Immigration Debate. Studies on the Economic, Demographic, and Fiscal Effects of Immigration.* Washington, D.C. : National Research Council, National Academy Press.

Smith, T. W. and L. Jarkko (1998). National pride : A cross-national analysis. National Opinion Research Center/University of Chicago, GSS Cross-national Report No. 19.

Snyder, J. M. (1990). Campaign contributions as investments : The US house of representatives 1908–1986. *Journal of Political Economy 61*, 195–206.

SOPEMI (1997, 1999, 2000b). *Trends in International Migration.* Paris : OECD.

SOPEMI (1999). *Trends in International Migration*. Paris : OECD.

SOPEMI (2000a). *Trends in International Migration*. Paris : OECD.

SOPEMI (2005). *Trends in International Migration 2004 Edition*. Paris : OECD.

Speciale, B. (2012). Does immigration affect public education expenditures ? quasi-experimental evidence. *Journal of public economics 96*(9), 773–783.

Stichnoth, H. and K. Van der Straeten (2013). Ethnic diversity, public spending, and individual support for the welfare state : A review of the empirical literature. *Journal of Economic Surveys 27*, 364–389.

Storesletten, K. (2000). Sustaining fiscal policy through immigration. *Journal of Political Economy 108*, 300–324.

Tang, P. J. and A. Wood (2000). Globalisation, co-operation costs and wage inequalities. mimeo.

Timmer, A. and J. Williamson (1996). Racism, xenophobia or markets ? The political economy of immigration policy prior to the Thirties. NBER WP 5867.

Trefler, D. (1993). International factor price differences. *Journal of Political Economy 101*(6), 961–987.

Trefler, D. (1998). Immigrants and natives in general equilibrium trade models. In J. P. Smith and B. Edmonston (Eds.), *The Immigration Debate : Studies on the Economic, Demographic, and Fiscal Effects of Immigration Policy Options*, pp. 206–238. Washington D.C. : National Academy Press.

Tripathi, M., S. Ansolabehere, and J. Snyder (2002). Are PAC contributions and lobbying linked ? New evidence from the 1995 lobby disclosure act. *Business and Politics 4*, 131–155.

Walmsley, T. L. and L. A. Winters (2003). Relaxing the restrictions on the temporary movements of natural persons : A simulation analysis. CEPR Discussion Paper No. 3719.

Watts, J. R. (2002). *Immigration Policy and the Challenge of Globalization*. Ithaca, N.Y. : Cornell University Press.

Winters, L. A., T. L. Walmsley, Z. K. Wang, and R. Grynberg (2003). Liberalizing temporary movement of natural persons : An agenda for the development round. *The World Economy 26*, 1137–1161.

Wood, A. (2002). Globalization and wage inequalities : A synthesis of three theories. *Review of World Economies 138*, 54–82.

Wooldridge, J. M. (2002). *Econometric Analysis of Cross Section and Panel Data*. Cambridge, Massachusetts : The MIT Press.

World Bank, T. (2006). *Global Economic Prospects*. Washington, DC : The World Bank.

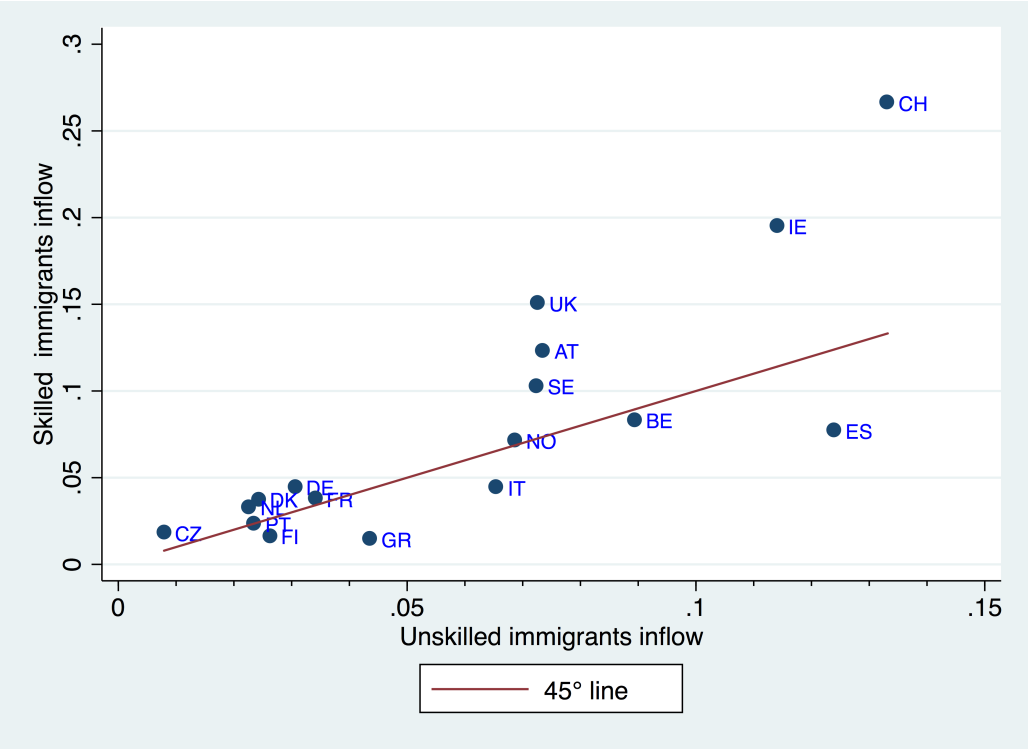
Yang, D. (2003). Financing constraints, economic shocks, and international labor migration : Understanding the departure and return of philippine overseas workers. Harvard University, dissertation chapter.

Yang, P. Q. (1995). *Post-1965 Immigration to the United States*. Westport, Connecticut : Praeger.

Tables and figures

FIGURE 1 – Ratio of Immigrant inflows to native population over the period 2012- 2002 - by skill level

(a) Country level



(b) NUTS level

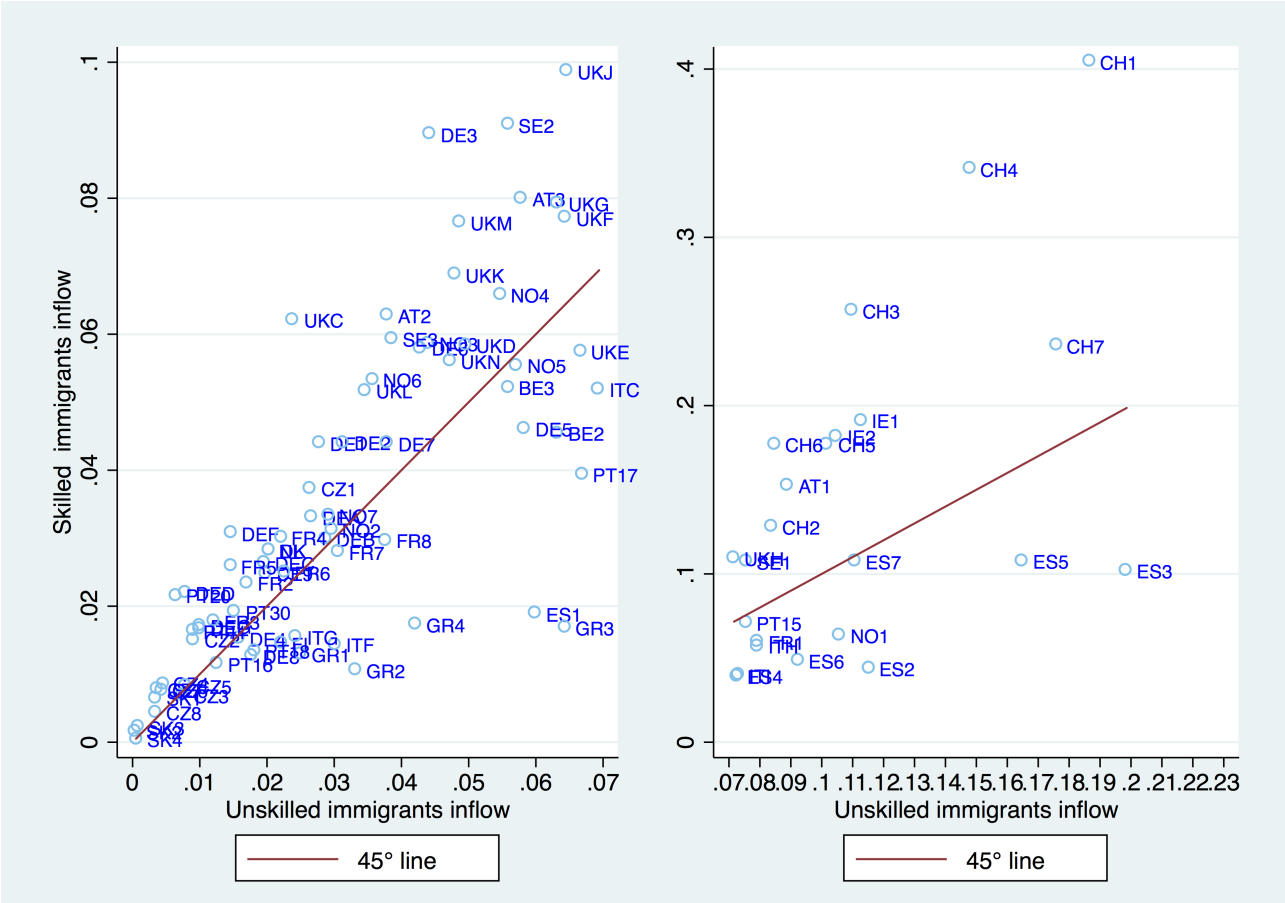


TABLE 2 – Attitudes towards redistribution and immigration - Average (in %) in 2002 and variation between 2002 and 2012 (in %) .

	Support for redistribution		Attitudes in favor of allowing more immigrants					
			of same race		of different race		from poorer countries	
	Av. in 2002	Variation 2012-2002	Av. in 2002	Variation 2012-2002	Av. in 2002	Variation 2012-2002	Av. in 2002	Variation 2012-2002
Austria,AT	67.5	-4.5	56.3	11.0	41.0	9.2	42.9	6.7
Belgium ,BE	68.0	2.7	68.2	3.7	54.0	1.5	53.0	1.6
Czechrepublic,CZ	57.4	5.9	54.7	-8.5	44.9	-11.5	46.2	-13.4
Denmark,DK	40.6	-1.1	77.0	6.0	47.5	13.1	44.2	4.8
Finland,FI	71.6	2.7	58.2	2.7	37.8	4.5	37.2	-4.3
France,FR	83.0	-5.1	64.7	4.9	53.4	3.2	49.4	0.9
Germany,DE	54.2	15.7	71.8	12.2	54.4	12.4	52.7	11.6
Greece,GR	91.8	-9.4	31.8	15.8	16.5	-2.1	16.5	-4.1
Ireland ,IE	74.5	3.1	76.8	-13.3	65.0	-9.4	64.2	-12.2
Italy,IT	80.6	2.4	66.6	4.6	56.2	8.3	55.0	9.7
Luxembourg,LU	63.6	.	62.9	.	47.3	.	48.1	.
Netherlands,NL	57.1	-0.6	64.4	2.6	56.4	5.8	54.0	-0.2
Norway,NO	67.3	-11.7	74.6	5.3	57.5	10.6	60.3	4.5
Portugal,PT	88.7	4.8	41.3	1.8	36.1	1.8	34.3	0.8
Spain,ES	79.7	2.6	57.5	0.5	52.7	0.2	51.8	0.3
Sweden,SE	67.7	-1.5	88.4	2.6	83.2	4.5	82.7	2.9
Switzerland,CH	64.9	3.0	81.9	1.0	65.2	-3.6	66.4	-8.5
United Kingdom,UK	60.6	2.2	65.4	-6.3	51.8	-2.7	50.0	-6.7

For Greece , data in 2010 . For Austria, data in 2008

TABLE 3 – Effect of immigrant inflows on natives' support for redistribution

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Average effect							
Total migrants'inflow Π_{nt}	-0.195**						
	(0.096)						
Unskilled inflow Π^U_{nt}		-0.253**		-0.422***			
		(0.102)		(0.126)			
Skilled inflow Π^S_{nt}			-0.010	0.213***			
			(0.063)	(0.080)			
Heterogeneous effect depending on education level of natives							
$\Pi^U_{nt} \times$ less than lower secondary					-0.372**		-0.295*
					(0.144)		(0.174)
$\Pi^S_{nt} \times$ less than lower secondary						-0.230**	-0.069
						(0.102)	(0.109)
$\Pi^U_{nt} \times$ upper secondary					0.062		-0.106
					(0.125)		(0.207)
$\Pi^S_{nt} \times$ upper secondary						0.192*	0.194
						(0.100)	(0.174)
$\Pi^U_{nt} \times$ tertiary or more					-0.268**		-0.668***
					(0.105)		(0.139)
$\Pi^S_{nt} \times$ tertiary or more						0.053	0.460***
						(0.092)	(0.114)
Observations	171509	171509	171509	171509	171509	171509	171509

Standard errors in parentheses $^{+}$ $p < 0.15$, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. All regressions include individuals controls described in table **??** , cohort fixed effects, region NUTS fixed effects, interaction of cohort*region fixed effects and year fixed effects

TABLE 4 – Effect of immigrant inflows on natives' willingness to allow new immigrants of *same* race/ethnic group into the country

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Average effect							
Total migrants'inflow Π_{nt}	-0.462***						
	(0.145)						
Unskilled inflow Π^U_{nt}		-0.358**		-0.107			
		(0.156)		(0.211)			
Skilled inflow Π^S_{nt}			-0.372***	-0.315***			
			(0.085)	(0.121)			
Heterogeneous effect depending on educational level of natives							
$\Pi^U_{nt} \times$ less than lower secondary					-0.629***		-0.587**
					(0.218)		(0.297)
$\Pi^S_{nt} \times$ less than lower secondary						-0.521***	-0.092
						(0.194)	(0.220)
$\Pi^U_{nt} \times$ upper secondary					-0.019		0.524*
					(0.167)		(0.267)
$\Pi^S_{nt} \times$ upper secondary						-0.233*	-0.587***
						(0.127)	(0.209)
$\Pi^U_{nt} \times$ tertiary or more					-0.206^{+}		0.180
					(0.141)		(0.209)
$\Pi^S_{nt} \times$ tertiary or more						-0.324***	-0.455***
						(0.083)	(0.127)
Observations	169975	169975	169975	169975	169975	169975	169975

Standard errors in parentheses $^{+}$ $p < 0.15$, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. All regressions include individuals controls described in table **??** , cohort fixed effects, region NUTS fixed effects, interaction of cohort*region fixed effects and year fixed effects

TABLE 5 – Effect of immigrant inflows on natives' willingness to allow new immigrants of *different* race/ethnic group into the country

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Average effect							
Total migrants'inflow Π_{nt}	-0.270**						
	(0.130)						
Unskilled inflow Π^U_{nt}		-0.196		0.022			
		(0.140)		(0.190)			
Skilled inflow Π^S_{nt}			-0.262***	-0.274**			
			(0.086)	(0.118)			
Heterogeneous effect depending on educational level of natives							
$\Pi^U_{nt} \times$ less than lower secondary					-0.363*		-0.457*
					(0.207)		(0.273)
$\Pi^S_{nt} \times$ less than lower secondary						-0.272+	0.080
						(0.178)	(0.197)
$\Pi^U_{nt} \times$ upper secondary					-0.007		0.755***
					(0.165)		(0.236)
$\Pi^S_{nt} \times$ upper secondary						-0.316***	-0.796***
						(0.117)	(0.171)
$\Pi^U_{nt} \times$ tertiary or more					-0.095		0.180
					(0.127)		(0.192)
$\Pi^S_{nt} \times$ tertiary or more						-0.217***	-0.329***
						(0.080)	(0.125)
Observations	169993	169993	169993	169993	169993	169993	169993

Standard errors in parentheses + $p < 0.15$, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. All regressions include individuals controls described in table **??** , cohort fixed effects, region NUTS fixed effects, interaction of cohort*region fixed effects and year fixed effects

TABLE 6 – Effect of immigrant inflows on natives' willingness to allow new immigrants from poor non-EU countries

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Average effect							
Total migrants'inflow Π_{nt}	-0.276*						
	(0.150)						
Unskilled inflow Π^U_{nt}		-0.198		0.040			
		(0.157)		(0.213)			
Skilled inflow Π^S_{nt}			-0.277**	-0.299**			
			(0.109)	(0.146)			
Heterogeneous effect depending on educational level of natives							
$\Pi^U_{nt} \times$ less than lower secondary					-0.257		-0.302
					(0.226)		(0.287)
$\Pi^S_{nt} \times$ less than lower secondary						-0.219	0.020
						(0.200)	(0.224)
$\Pi^U_{nt} \times$ upper secondary					-0.136		0.634**
					(0.177)		(0.258)
$\Pi^S_{nt} \times$ upper secondary						-0.406***	-0.805***
						(0.121)	(0.184)
$\Pi^U_{nt} \times$ tertiary or more					-0.159		0.077
					(0.141)		(0.204)
$\Pi^S_{nt} \times$ tertiary or more						-0.246***	-0.286**
						(0.077)	(0.122)
Observations	169739	169739	169739	169739	169739	169739	169739

Standard errors in parentheses + $p < 0.15$, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. All regressions include individuals controls described in table **??** , cohort fixed effects, region NUTS fixed effects, interaction of cohort*region fixed effects and year fixed effects

TABLE 7 – IV estimates- Effect of immigration on natives' support for redistribution

	(1)	(2)	(3)	(4)
Panel A - Average effect among all natives				
Total migrants'inflow Π_{nt}	-0.092			
	(0.167)			
Unskilled inflow Π^U_{nt}		-0.281^{+}		-3.329**
		(0.193)		(1.534)
Skilled inflow Π^S_{nt}			0.415*	2.278**
			(0.234)	(0.921)
Observations	178511	178511	178511	178511
Panel B- Effect among natives with less than lower secondary education				
Total migrants'inflow Π_{nt}	0.133			
	(0.185)			
Unskilled inflow Π^U_{nt}		0.094		-1.428
		(0.214)		(1.108)
Skilled inflow Π^S_{nt}			0.370	1.097^{+}
			(0.259)	(0.737)
Observations	60377	60377	60377	60377
Panel C - Effect among natives with upper secondary education				
Total migrants'inflow Π_{nt}	-0.098			
	(0.213)			
Unskilled inflow Π^U_{nt}		-0.369^{+}		-4.244*
		(0.228)		(2.168)
Skilled inflow Π^S_{nt}			0.509^{+}	3.090**
			(0.332)	(1.430)
Observations	68541	68541	68541	68541
Panel D - Effect among natives with tertiary education or more				
Total migrants'inflow Π_{nt}	-0.288			
	(0.260)			
Unskilled inflow Π^U_{nt}		-0.530*		-4.715*
		(0.303)		(2.549)
Skilled inflow Π^S_{nt}			0.279	3.078**
			(0.240)	(1.562)
Observations	49593	49593	49593	49593

Standard errors in parentheses $^{+}$ $p < 0.15$, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.
All regressions include individuals controls described in table **??** , cohort fixed effects, region NUTS fixed effects, interaction of cohort*region fixed effects and year fixed effects

TABLE 8 – Effect of immigrant inflows on retired natives (respondents born before 1940) - Non-IV estimates

	(1)	(2)	(3)	(4)
	Support for redistribution	Attitudes in favor of allowing more immigrants		
		of same race	of different race	from poorer countries
$\Pi_{nt}^{U} \times$ less than lower secondary	-0.026	-0.747*	-0.648*	-0.325
	(0.274)	(0.388)	(0.378)	(0.349)
$\Pi_{nt}^{S} \times$ less than lower secondary	-0.313	-0.039	-0.258	-0.308
	(0.237)	(0.292)	(0.265)	(0.294)
$\Pi_{nt}^{U} \times$ upper secondary	0.361	0.297	0.225	0.151
	(0.617)	(0.26)	(0.208)	(0.188)
$\Pi_{nt}^{S} \times$ upper secondary	-0.109	-0.156	-0.118	-0.172
	(0.388)	(0.133)	(0.259)	(0.290)
$\Pi_{nt}^{U} \times$ tertiary or more	-1.298***	-0.789+	-0.933*	-1.565***
	(0.485)	(0.500)	(0.477)	(0.490)
$\Pi_{nt}^{S} \times$ tertiary or more	1.006***	-0.018	0.024	-0.124
	(0.322)	(0.334)	(0.334)	(0.356)
Observations	30804	30558	30517	30443

Standard errors in parentheses $^{+}$ $p < 0.15$, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. All regressions include individuals controls described in table **??** , cohort fixed effects, region NUTS fixed effects, interaction of cohort*region fixed effects and year fixed effects

TABLE 9 – Effect of immigrant inflows within occupations on natives' attitudes

	(1)	(2)	(3)	(4)
	Support for redistribution	Attitudes in favor of allowing more immigrants		
		of same race	of different race	from poorer countries
Immigrant's to native ratio Π_{jt}^{p}	0.145**	-0.170**	-0.113	-0.271***
	(0.064)	(0.084)	(0.097)	(0.091)
Observations	148990	147413	147463	147244

Standard errors in parentheses. $^{+}$ $p < 0.15$, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

All regressions include individuals controls described in table **??** , cohort fixed effects, occupation, country, and year fixed effects, interaction of occupation*country, occupation*year and country*year fixed effects. Standards errors clustered at the occupation-country- year level

Appendix

Appendix A1

TABLE 10 – Instrument First stage

	Unskilled migrants flows		Skilled migrants flows	
	Π^U_{nt}	Π^U_{nt}	Π^S_{nt}	Π^S_{nt}
	(1)	(2)	(3)	(4)
Instrumented unskilled flows $\widehat{\Pi^U_{nt}}$	1.525***	1.608***		1.597***
	(0.246)	(0.267)		(0.465)
Instrumented skilled flows $\widehat{\Pi^S_{nt}}$		-0.117	1.635***	0.613***
		(0.184)	(0.361)	(0.189)
Individual controls	YES	YES	YES	YES
Cohort fixed effects	YES	YES	YES	YES
NUTS region fixed effects	YES	YES	YES	YES
Cohort*region fixed effects	YES	YES	YES	YES
year fixed effects	YES	YES	YES	YES
Observations	181878	181878	181878	181878

Standard errors in parentheses

$^{+}$ $p < 0.15$, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

TABLE 11 – Robustness checks : Within country-year specification - Effect of immigrant inflows on natives' attitudes -

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Support for redistribution			Attitudes in favor of allowing more immigrants								
				of same race			of different race			from poorer countries		
$\Pi^U_{nt} \times$ less than lower secondary	0.027		0.143	0.146		0.187	0.376**		0.248	0.429**		0.159
	(0.119)		(0.174)	(0.179)		(0.297)	(0.155)		(0.241)	(0.173)		(0.226)
$\Pi^S_{nt} \times$ less than lower secondary		-0.041	-0.133		0.011	-0.039		0.239**	0.149		0.362***	0.304*
		(0.077)	(0.114)		(0.143)	(0.228)		(0.121)	(0.172)		(0.127)	(0.158)
$\Pi^U_{nt} \times$ upper secondary	0.272**		0.252	0.483***		1.124***	0.519***		1.197***	0.320*		0.788***
	(0.129)		(0.184)	(0.162)		(0.257)	(0.167)		(0.233)	(0.170)		(0.246)
$\Pi^S_{nt} \times$ upper secondary		0.191*	0.037		-0.010	-0.703***		0.005	-0.734***		-0.014	-0.501***
		(0.111)	(0.155)		(0.167)	(0.204)		(0.155)	(0.172)		(0.130)	(0.172)
$\Pi^U_{nt} \times$ tertiary or more	-0.010		-0.251**	0.363***		0.777***	0.418***		0.671***	0.323**		0.396**
	(0.094)		(0.126)	(0.137)		(0.214)	(0.147)		(0.209)	(0.129)		(0.194)
$\Pi^S_{nt} \times$ tertiary or more		0.094	0.270**		0.004	-0.478***		0.105	-0.304**		0.138+	-0.101
		(0.084)	(0.110)		(0.135)	(0.138)		(0.130)	(0.130)		(0.089)	(0.124)
Observations	143763	143763	143763	142187	142187	142187	142176	142176	142176	141961	141961	141961

Standard errors in parentheses $^{+}$ $p < 0.15$, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. All regressions include individuals controls described in table **??** , cohort fixed effects, region NUTS fixed effects, interaction of cohort*region fixed effects , year fixed effects, and interaction of country*year fixed effects

TABLE 12 – Occupation structure (isco88) of natives and immigrants in Europe (ELFS data)

	Distribution of workers across occupations in 2012		$\Pi^{p}_{j,2012}$ Ratio of new migrants [a] to natives in 2012		
	Natives	New migrants[a]			
	all countries	all countries	all countries	U.K	Spain
Average in the employed population	100%	100%	5,3%	7,4%	9,0%
Legislators and senior officials	0.4%	0.1%	3.3%	5.8%	0.0%
Corporate managers	5.0%	3.3%	3.7%	4.1%	1.9%
Managers of small enterprises	3.6%	1.8%	3.2%	2.7%	3.0%
Mathematical and engineering science professionals	3.9%	4.4%	6.1%	11.5%	5.2%
Life science and health professionals	1.9%	1.9%	5.2%	19.5%	3.5%
Teaching professionals	4.4%	2.0%	2.5%	4.0%	2.0%
Other professionals	4.9%	3.3%	4.8%	6.5%	3.7%
Engineering science technicians	4.2%	1.9%	2.6%	6.5%	2.1%
Life science and health technicians	3.3%	1.9%	2.4%	7.7%	2.0%
Teaching associate professionals and technicians	1.7%	0.5%	1.8%	2.1%	2.2%
Other technicians and associate professionals	9.7%	4.3%	2.9%	5.4%	2.7%
Office clerks	9.8%	3.9%	2.1%	4.0%	2.7%
Customer services clerks	2.2%	1.8%	4.2%	6.1%	6.6%
Personal and protective services	9.5%	14.9%	8.8%	9.1%	14.2%
Models, salespersons and demonstrators	5.0%	4.6%	3.9%	6.6%	7.2%
Skilled agricultural and fishery	2.6%	1.2%	2.2%	2.1%	4.1%
Extraction and building trades	5.4%	8.9%	8.8%	5.6%	11.9%
Metal, machinery and related trades	4.9%	2.8%	3.4%	3.2%	5.6%
Precision, handicraft,craft printing and others	0.6%	0.4%	3.0%	1.7%	17.4%
Other craft workers (food, wood, textile)	1.6%	1.7%	6.5%	12.8%	11.1%
Stationary plant and related operators	1.0%	1.0%	2.9%	20.4%	3.7%
Machine operators and assemblers	2.7%	3.3%	4.0%	18.0%	6.8%
Drivers and mobile plant operators	3.9%	3.3%	4.3%	5.7%	8.1%
Sales and services elementary occupation	5.3%	18.5%	19.5%	16.0%	36.3%
Agricultural, fishery and related labour	0.4%	2.3%	23.0%	13.6%	58.0%
Laborers in mining, construction, manufacturing	2.4%	6.0%	12.4%	19.8%	18.2%

[a] arrived after 2002