Immigration and Attitudes toward Redistribution in Europe *

Alberto Alesina[a], Elie Murard[b], and Hillel Rapoport[d]

[a]*Harvard University and IGIER Bocconi*
[b]*IZA, Institute for the Study of Labor*
[d]*Paris School of Economics, Universite Paris 1 Panthon-Sorbonne*

Preliminary version
Please do not cite or circulate without permission

Abstract

We examine the relationship between immigration and attitudes to redistribution by assembling a new dataset of immigrant stocks at the regional level in 140 regions of 16 Western European countries. We combine census and population register records with attitudinal data from the biannual 2002-2014 rounds of the European Social Survey. This data allows us to estimate this relationship by exploiting within-country variations in the share of immigrants across regions and by holding constant welfare policies set at the national level. We find that, relative to other co-nationals, native Europeans have lower support for redistribution when the share of immigrants in their region of residence is higher. This negative relationship between immigration and redistribution is robust to the inclusion of a rich set of regional and individual controls, as well as to using six alternative measures of preferences for redistribution. This negative correlation is confined to self-reported right-wing respondents while the preferences of left-leaning ones remain unaffected by the level of immigration. While immigration from EU15 countries have no detectable effects, immigration from non-European countries is strongly associated with lower support for redistribution. Results suggest the more culturally distant and the poorer are the immigrants, the stronger is the anti-redistribution effect on natives.

Keywords: Income redistribution, ethnic heterogeneity, immigration

JEL codes: D31, D64, I3, Z13

1 Introduction

Public generosity, (as well as trust, and cooperative behavior) travel more easily within the same ethnic lines, nationality and religious affiliation .[1] This is why redistributive policies are ceteris paribus more extensive in more homogenous societies. For instance, Alesina and Glaeser (2004) argue that one of the reasons why the welfare state is more generous and expensive in Western Europe than in the US is that European countries have been traditionally much more homogeneous than the US, a country built by relative recent immigrants. However in the last two decades or so immigration in Western Europe has exploded and has become (and will remain for the foreseeable future) one of the major political issue in this region. Given that European countries have become less homogenous, has there a reaction against the welfare state in the native populations ?

The answer provided by this paper is "yes", with qualifications and heterogeneous effects.

One difficulty in analyzing the effect of immigration on welfare policies is the self selection of immigrants. The latter (especially the poorest) may be attracted by the so called "welfare magnets". How this effect may bias the results is not obvious: immigrants may indeed flow to countries with more generous welfare systems but these are precisely the countries in which individuals feel more favorably towards welfare so the direction of the bias is unclear.[2] In this paper we use a newly assembled dataset in which we consider regional data on the distribution of immigrants in 16 countries in Europe with 140 regions. Therefore we can have country fixed effects, in other words we can hold constant welfare policies at the national level and we can examine different reactions of different natives living in different regions of their country. We cannot hold constant welfare policies which vary at the local level an issue

---

[1]For a survey on the literature on redistributive policies see Alesina and Giuliano (2014) for a survey ion the effect of hetrerogeneity on social capital and trust see Alesina and La Ferrara (2005) and for recent results Algan et. al. (2017)

[2]Immigration flows are well known to be affected by the extent of the welfare state in receiving countries (Borjas, 1999, Grogger and Hanson, 2011). Besides this issue of reverse ca usality, idiosyncratic differences *between* countries (e.g. in terms of average incomes, extent of redistribution) further complicate a purely descriptive analysis. Endogeneity is also prevalent *within* countries, as immigrants' select into different occupations and people's average preferences vary by the type of occupation they pursue (Guillaud, 2011). For example, immigrants sort into manually-intensive occupations where they may have comparative advantages (vis-a-vis natives), but the average native worker in these occupations - irrespective of immigration - tends to favor more redistribution (since he is a net recipient of transfers).

which may be of limited importance in some countries (e.g. France) but more revenant others (e.g. Sweden). For our measure of preferences we use the European Social Survey (ESS) from 2002 to 2014.

The effect of immigration on preferences for redistribution is not homogenous across countries. It is stronger in Scandinavian countries (Finland Norway, Sweden) the Netherlands and in France . It is weaker or non existent in other countries. We also find that in every country the effect of immigration on preferences for redistribution holds for self reported right leaning respondents. Iimmigrants from different origin countries have different effects on natives' attitudes. While immigration from other European countries within the EU15 seems to have no effect, immigration from East-Europe is associated with a decline in natives' support for redistribution. However it is the immigration from countries outside Europe (mainly from Africa and Asia) which has the strongest negative effect. Thus the "distance" in terms culture, genetics etc. from the natives is relevant in determine reaction to immigrants. Finally, it is not only the more recent immigration (newcomers arrived less than 10 years ago) that is associated with a lower support for redistribution, but also the more ancient immigration (migrants arrived more than 10 years ago) seems to reduce pro-redistribution attitudes.

Our paper is related to the literature of the . demand for redistribution. The latter depends two factors: First, if the individual thinks she benefits from an income transfer scheme and second, if she regards the other beneficiaries of the scheme to be worthy recipients of support.[3] The second aspect is especially relevant of our purposes Cultural beliefs about who is a worthy recipient of public generosity correlate with race, especially in the United States. In many studies, representatives of the (white) American majority are found to be much less supportive of redistribution than members of minority groups (Alesina and La Ferrara, 2005). This is typically interpreted not only as heterogeneity in cultural preferences, but as sign of racial prejudices. Using individual data for the U.S., Luttmer (2001) shows evidence for "group loyalty effects", namely that support for redistribution increases if members of the respondent's own ethnic group are over-represented among welfare recipients. Using experimental data, Luttmer and Fong (2009) study actual self- reported attitudes as well as charitable giving in a dictator game (where respondents choose which

---

[3]For a survey of the literature, see Alesina and Giuliano (2010) and Stichnoth and Van der Straeten (2013).

fraction of income to allocate to a charity dedicated to Hurricane Katrina victims). The authors find no direct effect of race (of respondent or victim O presented in the experiments) in the experimental setting, but do so for people who identify strongly as whites or blacks. Alesina, Baqir and Easterly (1999) show that U.S. cities and metropolitan areas with higher racial heterogeneity provide fewer productive public goods (e.g. public schools). Alesina, Baqir and Hoxby (2004) demonstrate that U.S. jurisdictions form endogenously in response to a trade-off between scale benefits and costs of racial heterogeneity. Using data on welfare spending for families with dependent children, Alesina and Glaeser (2004) show that the share of African-Americans in the population correlates highly negatively with maximum welfare allowances across U.S. states. These empirical studies for the U.S. have in common that they find racial, not ethnic, linguistic or birthplace differences, to be the politically salient margin with respect to attitudes and welfare spending.

With more specific reference to immigration, in the US, Tabellini (2017) finds results for the US regarding the great migration in the first part of the last century which are fully consistent with those of the present paper. Natives became less favorable to social polcies in cities which received more immigrants partciluarly those culturally or religiously further away from the natives. These effects hold despite the eocomic benefits for the natives brought by the immigrants.

Empirical evidence for other countries is sparse. For Canada, Soroka et al. (2006) analyze community surveys and find that a comprehensive measure of diversity (racial, ethnic and birthplace differences) correlates negatively with trust, but find only very weak evidence for attitudes to redistribution. For Europe, Senik, Stichnoth and van der Straeten (2009) use European Social Survey data for 22 countries and find only a weakly negative link between people's perception of immigrants' presence and attitudes. This link grows stronger for people who express a dislike of immigrants and are concerned about the economic effects of immigration. Finseraas (2009) finds that people who perceive the presence of immigrants to be welfare state burden are also less open to redistribution in general. Magni-Berton (2013) finds that immigration affects attitudes not via xenophobia or group loyalties, but via labor market concerns. All these studies use survey-based attitudes perceptions towards immigrants to infer on the effect of immigration on redistribution, not actual levels of immigration. Burgoon, Koster and Egmond (2012) show that the effect of immigration on attitudes can even be positive at the occupational level. Also using European Social Survey

4

data, Burgoon (2014) finds that the national level link between immigration and attitudes is mediated by the degree of economic integration (e.g. dependency on unemployment benefits).[4]

For Germany, Stichnoth (2012) tests a similar hypothesis using socioeconomic panel data for 1997 and 2002. He finds only weak evidence for a link between regional differences in terms of immigrants' employment status and attitudes to redistribution in Germany. For Sweden, Dahlberg, Edmark and Lundquist (2012) use exogenous variation in refugee placement in the late 1980s and early 1990s and find a strongly negative causal relationship between the share of (non-OECD) foreigners in Swedish municipalities and attitudes to redistribution.

The paper is organized as follows. The next section describes in detail our data set which is by itself a contribution of the paper. Section 3 presents our main specification and exogeneity assumptions. Section 4 describes our main results including heterogeneous effects. Section 5 describes robustness checks and the last section concludes.

2 Data

The first contribution of this paper is to construct a novel dataset of immigrant stocks at the regional level in 16 different western European countries. While there have been several efforts to compile global bilateral migrant stocks across countries (e.g. Docquier et al., 2009; Ozden et al., 2001), we provide, for the first time, a dataset of immigrant population by origin country and by educational level in each region (NUTS) of Europe by harmonizing population censuses and registers in the years 1991, 2001 and 2011. When then combine this dataset with individual attitudinal data drawn from the European Social Survey across more than 140 regions in western Europe.

2.1 Immigrant stocks at the regional level

Primary sources of data.

To obtain immigrant stock data by origin country and region of destination in European countries, we mainly draw on population census data, from the 1991, 2001 and 2011 round of censuses – see table 1. Census data were used fo 10 countries, either provided by the

---

[4]To isolate country level variables, these studies assume those latent variables to be orthogonal to other covariates and rely on random intercept models.

national statistical offices, or taken from IPUMS International : Austria, Belgium, Ireland, Italy, France, Greece, Portugal, Spain, Switzerland, and the United Kingdom. [5] Countries not taking periodic censuses but keeping population registers have provided data extracted from these registers. This is the case for 6 countries: Denmark, Finland, Germany, Norway, the Netherlands and Sweden. To obtain migrant stock data by educational level, we sometime rely on Labor Force Survey instead (due to the lack of suitable census data)– see table 2 [6]

Official records usually apply two different definitions of what constitutes an international migrant: either being born in a foreign country or being a citizen of a foreign country. When harmonizing the data, we give priority to the definition based on country of birth. We compile the immigrant stock data in the regions of residence of the 16 European countries we cover by using the NUTS geocode standard for referencing the subdivisions of countries. The NUTS standard – developed and regulated by the European Union since the 1970s – defines minimum and maximum population thresholds for the size of the NUTS regions: between 3 and 7 millions for NUTS1 units, between 800,000 and 2 millions for NUTS2 units, and between 150,000 and 800,000 for NUTS3 units. NUTS regions are generally based on existing national administrative subdivisions. For example in mainland France, NUTS1 mirrors the 9 French areas "Zones d'etudes et d'amenagement du territoire " while the NUTS2 corresponds to the 22 French "Regions" and NUTS3 to the 96 French "Departements".

Harmonizing the data

Definition of migrants We measure immigration on the basis of country of birth (as opposed to citizenship). Birthplace data is readily available from most of the primary sources, expect for the 1991 rounds of the Austrian and Greek censuses, as well as for the 1991 and 2001 rounds of the German registers. In order to have a consistent definition of immigrants over time and comparable across countries, we choose to impute the number of foreign-born in the few instances in which data is missing. We follow the approach of Brucker et al (2013) by using the ratio between foreign citizens and foreign-born in year t in order to infer the

---

[5]For the UK, the census data we used (as provided by the ONS) does not cover Scotland nor Northern Ireland. Those two countries run separately their own census which we could not have access to

[6]We use the European Labor Force Survey (ELFS) instead of population censuses in three countries: Belgium, Switzerland and Germany. In Belgium and Switzerland, we chose not rely on census data because of the high share of foreign-born with unknown level of education. In Germany, the census does not report the birthplace, only the Labor Force Survey does.

number of foreign born in the previous years $t - 10$ or $t - 20$. [7]

Aggregation of origin countries Following the end of the cold war, many countries redrew their political boundaries, with some fragmenting into smaller nation states, such as the Soviet Union or Yugoslavia. The coding of birthplace data, which varies from one population census to another, often only reports the original territory as it existed before the split into newly constituted countries. For example, in many censuses of the 16 European countries, Serbia and Croatia are aggregated under the name of the former Yugoslavia. The same applies to the former USSR. To produce a consistent list of countries of birth across receiving countries and for the entire timeframe of the database, some adjustments had to be made. We treated as a single entity the countries that belonged to each of the following territory : the former Yugoslavia, the former Czechoslovakia, the Netherland Antilles, the Channel Islands, Sudan and South Sudan, Indonesia and East Timor. With respect to the ex-USSR, we choose to impute (when not known) the number of immigrants originating from the individual countries that comprise that area. Observing the total number of migrants from USSR in a given destination regions, we allocated these migrants to each individual countries by using the IAB brain-drain database (Brucker et al.,2013) which provides, at the national level, the number of immigrants by individual origin country in 1991, 2001 and 2011.[8] After harmonization, 217 different places of origin (mostly individual countries) are

---

[7]In practice we impute the number $\widehat{N}_{r,o,t}$ of foreign-born from origin country o living in region r at time t by using the observed number of foreign citizen $C_{r,o,t}$ in the same year, region and coming from the same origin country:

$$\widehat{N}_{r,o,t} = r_{o,t+10} * C_{r,o,t}$$

with $r_{o,t+10} = \frac{N_{o,t+10}}{C_{o,t+10}}$ the ratio at time $t + 10$ between national-level number of foreign-born and foreign-citizen from origin o and living in the same destination country of region r. For Austria and Greece, we impute the number of foreign-born in 1991 by using the ratio between foreign-born and foreign-citizen in 2001. For Germany, we impute the number of foreign-born in 1991 and 2001 by using the ratio in 2011. In order to assess the precision of such imputation, we predicted the number of foreign in Austria and Greece in 2000 following the same approach (i.e. using the 2011 ratio between foreign-born and foreign-citizen) and compared the imputed 2000 values and the observed 2000 values of foreign-born by origin country and region of residence. In both Austria and Greece, we obtain a coefficient of correlation above 0.97 between the observed and the imputed values. For Germany, we checked how the 2000 imputed value by origin countries correlate with the DIOC data 2000 values at the national level (Docquier et al., 2006). Considering only origin countries with positive DIOC numbers of migrants, we obtain a coefficient of correlation above 0.96 – and in particular a similar number of migrants from the ex-USSR, the so-called ethnic Germans.

[8]For example, for a given year and destination region, we impute the number of Polish migrants by

7

distinguished in both 1991, 2001 and 2011. Regarding missing information on the place of birth, the share of the population for whom the place of birth is missing or too imprecise is below 1% for most receiving countries and not higher than 4% for some countries (UK and Switzerland).

Education data We distinguish three levels of education using the the International Standard Classification of Education primary: primary (ISCED 0/1/2, i.e. lower secondary, primary and no schooling); secondary (ISCED 3/4 : high-school leaving certificate or equivalent) and tertiary education (ISCED 5A/5B/6 or higher).

2.2 Individual attitudinal data

Data on individual attitudes towards towards redistribution is taken from the European Social Survey (ESS). The ESS is the largest such survey and contains information on a wide range of socioeconomic and political values for individuals in 28 European countries. Data is available for seven biannual survey waves starting in 2002 and has been widely used in the study of preferences (see e.g. Card, Dustmann, Preston, 2005 or Ortega and Polavieja, 2012). To assess preferences to redistribution, we rely on answers to the statement *"The government should take measures to reduce differences in income levels "*. We use a 5-point scale variable that measures the extent to which the respondent agrees with the previous statement : agrees strongly (5), agrees (4) , neither agree nor disagree (3), disagree (2), disagree strongly (1)

2.3 Matched data on attitudes and immigrant stocks

Combining the data at the regional level The ESS provides relatively precise information on the place of residence of the respondents: at the regional NUTS2 level for most countries expect for Belgium, France, Germany and the UK for which only larger NUTS 1 regions are available. In Ireland, smaller NUTS 3 region are available. In few instances the coding of the place of residence in the ESS data does not fully coincide with the NUTS classification or is sometimes inconsistent across the different survey rounds. To address this issue, we aggregate different NUTS regions into one larger unit : the northwestern re-

---

multiplying the number of migrants from the USSR in the same year and destination region with the share of Poles among all URSS migrants in the same year and destination country, as provided by the IAB dataset.

gion of Switzerland with Zurich (CH03-CH04) , the Southern part of Finland with Helsinki (FI1B-FI1C), and the Trentino province with the Bolzano province in Italy (ITH1-ITH2). Moreover, some of the NUTS regions are poorly covered by the ESS survey (with typically less than ten respondents) and we decided to exclude them all together. This is the case of the regions of Ceuta and Melilla in Spain, the Acores and Madeira in Portugal, Aland in Finland, and Molise and the Valle d'Aosta in Italy.

Once these small adjustments are made, were are able to successfully combine the ESS attitudinal survey with the immigrant stocks data across 148 different regions of residence – either NUTS2 or NUTS1 – in the 16 European countries we cover over the period 2002-2014. Table 4 in Appendix provides the exhaustive list of NUTS regions included in the analysis. Since we aim at measuring individual exposure to immigrant's presence, we only use rounds of the ESS that are close enough to the time at which immigrant stocks are measured. In practice we chose to use ESS rounds carried out no later than four years after the rounds of population censuses and registers. We thus merge the 2002 and 2004 rounds of the ESS to the immigrant stocks in the 2001 round of censuses/registers, as well as the 2010, 2012 and 2014 rounds of the ESS to the immigrant stocks in the 2011 round of censuses/registers.

Estimation sample Since we are interested in the effect of immigration on natives' demand for redistribution, we restrict the ESS sample to native-born individuals, i.e. born in their current European country of residence. Furthermore, given its very particular history, we exclude individuals living in East Germany, notably because of the well-documented persistence of strong preferences for redistribution in the former GDR (Alesina and Fuchs-Schndeln, 2007). Pooling the 2002, 2004, 2010, 2012 and 2014 rounds of ESS, we obtain a repeated cross section that contains immigrant stock data for 142 different regions in 16 countries and attitudes towards redistribution for 124,402 individuals living in these regions. There are on average 876 respondents by region, with a minimum of 43 respondents in the Italian region of Friuli-Venezia (ITH4) and a maximum of 4991 in the Belgium Flemish region (BE2).

Table 1: Immigrant stocks by origin countries : database sources by destination country

country	regional level	year 1991		year 2001		year 2011		data provider	weblink
		sources	definition immigrants	sources	definition immigrants	sources	definition immigrants		
Austria	NUTS2 (Bundeslander)	Census 1991	citizenship	Census 2001	birthplace	Census 2011	birthplace	STATISTIK AUSTRIA (STATcube)	http://www.statistik.at/
Belgium	NUTS3 (Arrondissements)	Census 1991	birthplace	Census 2001	birthplace	Census 2011	birthplace	Statistics Belgium	http://statbel.fgov.be/
Switzerland	NUTS 3 (Canton)	Census 1990	birthplace	Census 2000	birthplace	Census 2010	birthplace	Office federal de la statistique	http://www.statistique.admin.ch
Germany	NUTS1 (Lander)	Register 1991	citizenship	Register 2001	citizenship	Census 2011	birthplace	Statistisches Bundesamt DESTATIS	https://www.destatis.de
Denmark	NUTS3 (Landsdele)	Register 1991	birthplace	Register 2001	birthplace	Register 2011	birthplace	Statistics Denmark	http://www.statbank.dk/
Spain	NUTS3 (Provincias)	Census 1991	birthplace	Census 2001	birthplace	Census 2011	birthplace	Instituto Nacional de Estadstica INE	http://www.ine.es/
Finland	NUTS3 (Maakunnat)	Register 1991	birthplace	Register 2001	birthplace	Register 2011	birthplace	Statistics Finland	https://www.stat.fi/
France	NUTS3 (Departements)	Census 1990	birthplace	Census 1999	birthplace	Census 2011	birthplace	Institut national de la statistique (Saphir)	https://www.insee.fr
Greece	NUTS3 (Nomoi)	Census 1991	citizenship	Census 2001	birthplace	Census 2011	birthplace	IPUMS international (10% extract)	https://international.ipums.org
Ireland	NUTS3	Census 1991	birthplace	Census 2002	birthplace	Census 2011	birthplace	IPUMS international (10% extract)	https://international.ipums.org
Italy	NUTS2 (Regioni)	Census 1991	birthplace	Census 2001	birthplace	Census 2011	birthplace	ISTAT (Laboratorio Adele)	http://www.istat.it/
Netherlands	NUTS2 (Provincies)	Register 1995	birthplace	Register 2001	birthplace	Register 2011	birthplace	Centraal Bureau voor de Statistiek CBS	https://www.cbs.nl/
Norway	NUTS2 (Regions)	Register 1991	birthplace	Register 2001	birthplace	Register 2011	birthplace	Statistics Norway	http://www.ssb.no/
Portugal	NUTS2 (Regions)	Census 1991	birthplace	Census 2001	birthplace	Census 2011	birthplace	IPUMS international (5% extract)	https://international.ipums.org
Sweden	NUTS2 (National areas)	Register 1991	birthplace	Register 2001	birthplace	Register 2011	birthplace	Statistics Sweden	http://www.scb.se/
United Kingdom	NUTS1	Census 1991	birthplace	Census 2001	birthplace	Census 2011	birthplace	Office for National Statistics	https://www.ons.gov.uk

Table 2: Immigrant stocks by educational attainment : database sources by country

		year 2001		year 2011	
country	regional level	sources	definition	sources	definition
Austria	NUTS2 (Bundeslnder)	Census 2001	birthplace	Census 2011	birthplace
Belgium	NUTS3 (Arrondissements)	ELFS 2001	birthplace	ELFS 2011	birthplace
Switzerland	NUTS 3 (Canton)	ELFS 2002	birthplace	ELFS 2011	birthplace
Germany	NUTS1 (Lander)	ELFS 2002	birthplace	ELFS 2011	birthplace
Denmark	NUTS3 (Landsdele)	Population register 2001	birthplace	Population register 2011	birthplace
Spain	NUTS3 (Provincias)	Census 2001	birthplace	Census 2012	birthplace
Finland	NUTS3 (Maakunnat - Landskap)	Population register 2001	birthplace	Population register 2011	birthplace
France	NUTS3 (Departements)	Census 1999	birthplace	Census 2011	birthplace
Greece	NUTS3 (Nomoi)	Census 2001	birthplace	Census 2011	birthplace
Ireland	NUTS3	Census 2002	birthplace	Census 2011	birthplace
Italy	NUTS2 (Regioni)	Census 2001	birthplace	Census 2011	birthplace
Netherlands	NUTS2 (Provincies)	Population register 2001	birthplace	Population register 2011	birthplace
Norway	NUTS2 (Regions)	Population register 2001	birthplace	Population register 2011	birthplace
Portugal	NUTS2(Regions)	Census 2001	birthplace	Census 2011	birthplace
Sweden	NUTS2 (National areas)	Population register 2001	birthplace	Population register 2011	birthplace
United Kingdom	NUTS1	Census 2001	birthplace	Census 2011	birthplace

ELFS: European Labor Force Survey

2.4 Descriptive Statistics (incomplete)

Table 3 provides some descriptive statistics of the two main variables used in the analysis :
the preferences for redistribution measured with a 5-point scale and the share of immigrants
(foreign-born) in the population at the regional level. In the estimation sample, the average
of attitudes in favor of redistribution is 3.79 and the average share of immigrants is 11% .
The distribution of attitudes in favor for redistribution is clearly skewed to the right, with a
mean well above the median. In all countries, a majority of individuals "agrees" or "strongly
agrees" with the statement. Countries with lowest overall preference for reduction in income
differences (share of population that at least "agrees") are – among others – Denmark , the
Netherlands and Great Britain. Most in favor of lower income inequality are – among others
– Portugal, Spain, Italy, France and Greece (0.90).[9] This pattern serves as reminder that
attitudes to redistribution are a good proxy for a country's position on many policy related
questions. Descriptive statistics for all other individual socioeconomic variables we extract
from ESS can be found in the appendix.

Although there are some differences in the average support for redistribution across coun-

---

[9]Interestingly, the Scandinavian countries mostly lie below the European average, suggesting that re-
spondents take the prevailing level of redistribution into account.

tries, these differences are not very pronounced, ranging for 2.99 in Denmark to 4.32 in Greece. Attitudes mostly vary across individuals living in the same region, with the inter-regional variation only explaining 12% of the total variance of individual attitudes. The fact that attitudes vary mostly within region is also true for each European country, where the the inter-regional variation generally explain no more than 5 or 6% of the total variance.

Table 3: Statistics Descriptive among the ESS estimation sample, by country

	all countries	Austria	Belgium	Denmark	Finland	France	Germany	Greece	Ireland
pro-redistribution attitudes									
average	3.79	3.86	3.75	2.99	3.93	4.04	3.48	4.32	3.91
standard-deviation	1.05	1.07	1.07	1.14	1.01	1.08	1.09	.85	.97
share of variance across region-year	0.12	0.02	0.01	0.00	0.01	0.02	0.05	0.06	0.03
standard-deviation within region-year	.99	1.05	1.06	1.14	1.01	1.07	1.06	.82	.96
standard-deviation across region-year	.36	.17	.09	.04	.09	.16	.24	.2	.16
share of immigrants									
average	.11	.14	.12	.06	.04	.11	.14	.1	.15
average of the log	-2.39	-2.08	-2.25	-2.82	-3.41	-2.38	-1.98	-2.32	-1.94
standard-deviation of the log	.61	.44	.41	.36	.47	.53	.19	.33	.27
N	124,402	7,455	7,900	6,977	9,688	8,006	8,058	6,786	10,209

	Italy	Netherlands	Norway	Portugal	Spain	Sweden	Switzerland	UK	
pro-redistribution attitudes									
average	4.09	3.45	3.6	4.31	4.1	3.73	3.58	3.55	
standard-deviation	.89	1.08	.99	.73	.88	.92	1.06	1.04	
share of variance of across region-year	0.05	0.01	0.02	0.02	0.02	0.01	0.02	0.01	
std within region-year	.87	1.08	.98	.73	.88	.91	1.05	1.04	
std across region-year	.2	.1	.15	.11	.11	.11	.15	.1	
share of immigrants in the region									
average	.05	.1	.09	.08	.09	.13	.23	.1	
average of the log	-3.19	-2.33	-2.52	-2.66	-2.54	-2.12	-1.51	-2.49	
standard-deviation of the log	.48	.38	.48	.5	.59	.38	.26	.52	
N	3,459	8,955	7,594	8,399	7,976	7,907	6,799	8,234	

3   Empirical specification (preliminary)

We estimate the following linear model for native-born individual i, living in the region n of country c at survey round t, with $t = 2002, 2004, 2010, 2012$:

$$y_{inct} = Mig_{nt}\beta + X_{it}\alpha + Z_{nt}\lambda + \delta_{ct} + \epsilon_{int} \tag{1}$$

where y_{int} is the 5-point scale variable measuring natives' support redistribution as described in the data section above. Mig_{nt} is the log share of foreign-born in the total pop-

ulation of region n sometime before year t. For the ESS rounds 2002 and 2004 we use the immigrant stock in the 2000 population census. For the ESS rounds 2010 to 2014, we use the immigrant stock in the 2010 population census. In all specifications, we include a set of country-year fixed effect δ_{ct}. The vector Z_{nt} includes controls at the regional level such as the native population (log), GDP per capita (log), unemployment rate, and the share of tertiary educated among the native population. The vector X_{it} controls for individual socio-demographic characteristics, such as the respondent's sex, age, education, 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. I cluster standard errors at the region-by-year level to account for the possible correlation of the individual-level residuals ϵ_{int} within the same region and year.

4   Results (preliminary)

4.1   Basic Specification

Table 4 shows the correlation between the share of immigrants in the population at the regional level and the natives' attitudes towards redistribution. We include country-year fixed effects in order to control for average difference in attitudes across country and over time. Hence, estimates are obtained by comparing attitudes of co-nationals within the same country and the same year, but living in different regions and thus differently exposed to the presence of immigrants. Table 4 reveals that the negative association between the share of foreign-born and natives' attitudes is robust to the inclusion of regional controls (column 2), to the inclusion of individual socio-demographic controls (column 4), to the inclusion of respondent's last occupation and household income (column 5), as well as to the inclusion of individual political affiliation (rightist or leftist) , measures of altruism, inequality aversion and sense of fairness (column 6). Estimates are also robust to excluding the capital regions of each of the 16 countries as column 3 shows [10].

When the full list of controls is included in column 6, we obtain a highly statistically significant coefficient of -0.070. This estimates suggests that a one-standard increase in the log share of immigrants (0.61) reduces natives' support for redistribution by .042, which

---

[10]For Spain, both regions of Madrid and Barcelona are excluded. In Italy, both regions of Milano and Roma are excluded

represents a 1.1% decline with respect to the baseline average support. Since by construction the share of immigrants at the regional level can only explain variation in attitudes across regions and not within, it seems more natural to compare the effects of immigration to the typical cross-regional variation in attitudes – rather than to the overall variation, which encompasses within-region variation on which our model has nothing to say (and which is much larger than smaller magnitude than cross-regional variation). Thus, an one-standard-deviation increase in the share of immigrants is associated with a decline by a 11.8% of the cross-regional standard-deviation of natives' attitudes.

Table 5 presents the estimates of same corr elation between immigrants' share and natives' attitudes obtained by using an alternative specification which does not included country fixed effects (but only year fixed effects). Estimates are thus obtained using variation of attitudes and immigrants' share across country, and no longer within country only. As table 5 shows, the correlation becomes very weak and statistically insignificant when country fixed effects are no more included. This suggests that reverse causality might drive the estimates when cross-countries differences are not controlled for : the relative generosity of the national welfare state is a well-know pull factor attracting immigrants and may thus generate an upward biases in the cross-country OLS estimates (welfare magnet hypothesis; Razin and Wahba, 2015).

4.2   Heterogeneous effects depending on receiving country

Table 6 explores how the effect of immigration varies across the different countries of destination. The estimates shows the correlation between the immigrants' share and natives' attitudes within each country of residence of the respondents (estimated using variations across regions). Table 6 reveals that the negative association between the immigrants' share and an natives' attitudes holds within specific countries only and is absent in the other European countries. It seems that the presence of immigrants lowers the support for redistribution exclusively among native citizen of France, the Netherlands, Norway, Finland and Sweden. The last column (7) presents the size of the estimated correlation in terms of cross-regional standard-deviation elasticity. For instance, in France, a one-standard-deviation increase in the log share of immigrants is associated with a education by 36.2% of the cross-regional standard-deviation in natives' preferences for redistribution. In Sweden, this elasticity is estimated to be as high as 45%.

14

Table 4: Immigration and pro-redis attitudes 5 point scale : Main specification with country-year Fixed Effects

	(1)	(2)	(3)	(4)	(5)	(6)
			excluding capital region			
ln share. foreign	-0.087***	-0.104***	-0.099***	-0.100***	-0.106***	-0.070***
	(0.019)	(0.027)	(0.028)	(0.027)	(0.028)	(0.024)
R2	0.11	0.11	0.10	0.14	0.16	0.23
N	124,402	124,402	101,831	123,571	90,495	81,613
country-year FE	X	X	X	X	X	X
regional control		X	X	X	X	X
indiv-controls				X	X	X
ind income					X	X
indiv cont inc ideology						X
average attitude	3.79	3.79	3.79	3.79	3.79	3.79

Regional controls include: native population (log), GDP per capita (log), unemployment rate, share of tertiary educated among the native population. Individual Controls include: year of birth*sex , sex*education, household composition, employment status (unemployed, self-employed, retired..), education of parents and country of birth of parents, type of respondent's domicile (big city, suburbs, small town, village) . Individual income controls include: current or former occupation (isco88 2 digits), household income quantile in the country, and feeling about current household's income. Ideology controls include: Placement on left right scale, opinions about whether people should be treated equally and have equal opportunities, opinions about the importance to help people and care for others well-being,opinions about whether Most people try to take advantage of you, or try to be fair.

Standard errors are clustered at the NUTS- year level

Table 5: Immigration and pro-redis attitudes 5 point scale : specification without country-year Fixed Effects

	(1)	(2)	(3)	(4)	(5)	(6)
			excluding capital region			
ln share. foreign	-0.086**	0.018	-0.003	0.021	0.006	-0.032
	(0.042)	(0.044)	(0.043)	(0.040)	(0.036)	(0.037)
R2	0.00	0.04	0.04	0.08	0.11	0.18
N	124,402	124,402	101,831	123,571	90,495	81,613
country-year FE						
regional control		X	X	X	X	X
indiv-controls				X	X	X
ind income					X	X
indiv cont inc ideology						X
average attitude	3.79	3.79	3.79	3.79	3.79	3.79

Why the results are especially and so strong n these countries and not in others is a challenging question. One thing that all these countries have in common is an especially generous welfare state. The share of government spend over GDP is on average ## in these countries versus && in our sample of 16 countries. The average welfare spending in these countries is %% versus and average of %% in the sample.

Table 6: Immigration and pro-redis attitudes 5 point scale

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
			excluding				elasticity in terms of
			capital region				one standard-deviation
log share. foreign * Austria	-0.023	-0.085	0.129	-0.117	-0.144**	-0.071	-0.269
	(0.071)	(0.081)	(0.120)	(0.081)	(0.066)	(0.058)	
log share. foreign * Belgium	0.137*	0.038	0.224***	0.048	0.029	0.001	0.127
	(0.070)	(0.072)	(0.054)	(0.076)	(0.066)	(0.049)	
log share. foreign * Switzerland	-0.030	-0.108	0.056	-0.112	-0.166	-0.168	-0.361
	(0.185)	(0.183)	(0.107)	(0.177)	(0.155)	(0.142)	
log share. foreign * Germany	-0.039	-0.001	-0.007	-0.012	-0.003	-0.015	0.021
	(0.084)	(0.097)	(0.094)	(0.100)	(0.088)	(0.084)	
log share. foreign * Denmark	0.035	0.014	-0.137	0.030	0.010	0.022	0.110
	(0.025)	(0.041)	(0.107)	(0.044)	(0.051)	(0.040)	
log share. foreign * Spain	-0.034	-0.000	-0.043	0.001	0.032	0.031	0.160
	(0.036)	(0.038)	(0.049)	(0.035)	(0.040)	(0.040)	
log share. foreign * Finland	-0.224***	-0.195***	-0.121*	-0.180***	-0.168***	-0.133***	-0.726
	(0.037)	(0.047)	(0.070)	(0.049)	(0.046)	(0.039)	
log share. foreign * France	-0.180***	-0.205***	-0.167***	-0.197***	-0.188***	-0.139***	-0.362
	(0.027)	(0.034)	(0.035)	(0.034)	(0.034)	(0.032)	
log share. foreign * Greece	-0.093	-0.102	-0.161	-0.103	-0.157	-0.055	-0.046
	(0.092)	(0.103)	(0.132)	(0.103)	(0.113)	(0.118)	
log share. foreign * Ireland	-0.350*	-0.291	-0.551*	-0.317	-0.335	-0.200	-0.252
	(0.184)	(0.251)	(0.333)	(0.263)	(0.266)	(0.254)	
log share. foreign * Italy	-0.120	0.076	0.141	0.065	0.140	0.079	0.256
	(0.092)	(0.097)	(0.097)	(0.092)	(0.102)	(0.123)	
log share. foreign * Netherlands	-0.141***	-0.149***	-0.145***	-0.148***	-0.148***	-0.103**	-0.437
	(0.032)	(0.038)	(0.043)	(0.035)	(0.044)	(0.044)	
log share. foreign * Norway	-0.249***	-0.316***	-0.432***	-0.278***	-0.252***	-0.110***	-0.364
	(0.037)	(0.042)	(0.083)	(0.040)	(0.046)	(0.039)	
log share. foreign * Portugal	0.071	0.020	-0.071	-0.007	-0.035	0.011	0.080
	(0.045)	(0.052)	(0.067)	(0.049)	(0.052)	(0.049)	
log share. foreign * Sweden	-0.249***	-0.252***	-0.257***	-0.236***	-0.235***	-0.128***	-0.455
	(0.031)	(0.041)	(0.067)	(0.044)	(0.042)	(0.045)	
log share. foreign * UK	-0.058	-0.049	-0.167***	-0.049	-0.042	0.005	0.036
	(0.044)	(0.044)	(0.062)	(0.043)	(0.043)	(0.040)	
R2	0.11	0.11	0.11	0.14	0.16	0.23	0.61
N	124,402	124,402	95,482	123,571	90,495	81,613	81,613
country-year FE	X	X	X	X	X	X	X
regional control		X	X	X	X	X	X
indiv-controls				X	X	X	X
ind income					X	X	X
indiv cont inc ideology						X	X
average attitude	3.79	3.79	3.79	3.79	3.79	3.79	3.79

Regional controls include: native population, GDP per capita, unemployment rate, share of tertiary educated about the native ppoulation Individual Controls include: year of birth*sex , sex*education, household composition, urbanity, employment status (unemployed, self-employed, retired..), education of parents and country of birth of parents individual income controls include: current or former occupation (isco88 2 digits), household income quantile in the country, and feeling about current household's income ideology controls include: Placement on left right scale, Opinions about whether people should be treated equally and have equal opportunities Opinions about the importance to help people and care for others well-being Opinions about whether Most people try to take advantage of you, or try to be fair Standard errors are clustered at the NUTS- year level

4.3 Heterogeneous effects depending on native individuals' characteristics

Table 7 explores how the effect of immigration depends on native individuals' characteristics. The specification allows the association between immigrants' share and natives' attitudes to be a function of the educational attainment of the respondent (primary, secondary or tertiary) , of the household income, the type of domicile (big city versus suburb or small town or village), the political affiliation (rightist versus leftist) , the aversion to inequality, and the attitudes towards immigrants. Table 7 reveals that the negative effects of im migration on support for redistribution is more pronounced among most educated natives (tertiary versus primary educated natives) and among richest households (in the last income quintile as opposed to the first three quintile), and is slightly less pronounced in big cities. These results arereasonable: the immigrants are poorer than average natives thus rich natives feel that they would bear a disproportionate burden of welfare policies directed towards immigrants. Also in big cities people may become more used to intreacting with immigrants. Think of London versus the rest of England.

The most notable dimension along which the effect of immigration is heterogeneous is political affiliation : the effect on pro-redistribution attitudes is nearly three times more negative among rightist natives (column 5) than among the entire sample (column 1), while being zero among leftist natives. Rightist natives being generally less averse to inequality and holding negative views on the cultural effects of immigration, the results evidenced in column 6 and 7 are to be expected : immigration lowers pro-redistribution attitudes mostly among natives with lower aversion to inequality and among those considering that immigrants make the country a worse place to live in.[11]

In Table 8 column 2 , 3 and 4 suggest that the differential effect of immigration across political affiliation survives and remains unchanged when we allow immigration to have differential effects also across the educational level of respondents and their household income. Thus that the differential response of rightist and leftist natives cannot be ac counted for by differences in education or income. By contrast, the heterogeneity of response across educational and income level seems of a much lower magnitude relative to – and almost fully explained by– the heterogeneity across political affiliation (column 4).

---

[11]Alesina et al. (2018) report as well very strong heterogenous effects between right and left wing respondents in surveys relating redistribution and perception of social mobility

Table 7: Heterogeneous effects across individual respondents

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
share. immigrants (log)	-0.070***	-0.032	-0.046**	-0.066***	0.004	-0.004	-0.030
	(0.024)	(0.026)	(0.023)	(0.022)	(0.025)	(0.026)	(0.025)
secondary education *share. immigrants (log		-0.037*					
		(0.021)					
tertiary education * share. immigrants (log)		-0.056***					
		(0.021)					
household income in 4th quantile * share. immigrants (log)			-0.031				
			(0.022)				
household income in 5th quantile * share. immigrants (log)			-0.060**				
			(0.030)				
domicile: big city * share. immigrants (log)				0.048*			
				(0.027)			
rightist respondent * share. immigrants (log)					-0.194***		
					(0.021)		
respondent with low aversion for						-0.101***	
inequality * share. immigrants (log)						(0.016)	
respondent think immigrants make the country a							-0.053***
worse place to live * share. immigrants (log)							(0.017)
R2	0.23	0.23	0.23	0.23	0.23	0.23	0.23
N	81,613	81,613	81,613	81,556	81,613	81,211	80,641
country-year FE	X	X	X	X	X	X	X
regional control	X	X	X	X	X	X	X
indiv-controls	X	X	X	X	X	X	X
ind income	X	X	X	X	X	X	X
indiv cont inc ideology	X	X	X	X	X	X	X

All variable which is interacted with the log share of immigrants is included in the controls of the regression, as well as its interaction with country-year fixed effects. This allows to control for difference in attitudes in a flexible way. This specification estimates the parameters of interest using cross-regional variation in attitudes of co-nationals in the same year and who share the same characteristics of interest (education , household income, rightist or leftist..). "*domicile: big city*" is a binary equal one if the respondent says to live in a big city as opposed to the suburbs, a small town or a village on the countryside. "*rightist respondent* " is a binary equal one if the respondent places himself on the right of the political spectrum (6 to 10 scores on a 11 point scale). "*respondent with low aversion for inequality*" is a binary equal one if the respondent does not strongly agree with the statement that people should be treated equally and have equal opportunities. "*respondent think immigrants make the country a worse place to live*" is a binary equal one if the respondent agrees with that statement (score ranges from 0 to 5 on a 11 point scale)

Table 8: Heterogeneity of effects across individual respondents

	(1)	(2)	(3)	(4)
share. immigrants (log)	-0.013	0.042*	0.024	0.045*
	(0.025)	(0.025)	(0.023)	(0.025)
secondary education*share. immigrants (log	-0.037*	-0.037*		-0.034
	(0.021)	(0.020)		(0.021)
tertiary education * share. immigrants (log)	-0.044**	-0.045**		-0.036*
	(0.021)	(0.021)		(0.020)
household income in 4th quantile * share. immigrants (log)	-0.020		-0.020	-0.013
	(0.022)		(0.022)	(0.021)
household income in 5th quantile * share. immigrants (log)	-0.053*		-0.050*	-0.041
	(0.029)		(0.029)	(0.029)
rightist respondent * share. immigrants (log)		-0.189***	-0.189***	-0.188***
		(0.021)	(0.021)	(0.021)
R2	0.24	0.24	0.24	0.24
N	81,613	81,613	81,613	81,613
country-year FE	X	X	X	X
regional control	X	X	X	X
indiv-controls	X	X	X	X
ind income	X	X	X	X
indiv cont inc ideology	X	X	X	X
average attitude				

All variable which is interacted with the log share of immigrants is included in the controls of the regression, as well as its interaction with country-year fixed effects. This allows to control for difference in attitudes in a flexible way. This specification estimates the parameters of interest using only variation in attitudes of co-nationals in the same year who share the same characteristics of interest (education , household income, rightist or leftist..). "*rightist respondent* " is a binary equal one if the respondent places himself on the right of the political spectrum (6 to 10 scores on a 11 point scale) .

4.4 Heterogeneous effects depending on immigrant's country of origin and immigrants' skills

Table 9 investigates whether the effects of immigration depends on the countries of origin and skills of the migrants. We focus on the sample of countries for which we find evidence of a significant negative correlation between immigration and attitudes to redistribution, i.e. France, Netherlands, Norway, Sweden, Finland. Furthermore, we restrict the sample to rightist natives since immigration does not seem to affects preferences of leftist natives.

Immigrants from different origin countries seem to generate different effects on natives' attitudes. While immigration from EU15 countries is not significantly associated with changes in natives' attitudes (column 2), immigration from East-Europe is associated with a decline in the support for redistribution (column 3). But it is most importantly the immigration from countries outside Europe (mainly from Africa and Asia) which has the strongest negative effect (column 4). When we simultaneously include the three types of immigrants' origin in the regression (column 4), it appears that it is immigrants from countries outside Europe to completely drive the average negative correlation between immigration and natives' attitudes, as estimated in column 1. The next columns 6-9 suggest that immigrants from poorer countries (with a GDP per capita below the median of all origin countries) have a more negative effect on natives' attitudes relative to immigrants from richer countries. When both type of immigration are included, we find a significant difference between the effects of immigration from rich origin countries relative to poor origin countries This difference remains (in terms of point estimates but not of statistical significance) when we control for the share of EU15 immigrants. This suggests that non-European migrants who more likely to be net consumer of the welfare system of destination (i.e. to represent a fiscal burden) or to be low-skilled reduce natives' support for redistribution by a larger extent relative to other non-European immigrants However, when looking at the differential effects of immigrants depending on their education level (primary, secondary or tertiary education), we do not find any significant differences (column 10-13).

Table 10 examines whether the effects of immigration depends on how long the migrants have been living in the host country (i.e. time since arrival). The first column estimates the effects of immigrants 10 years before natives' attitudes are measured in the European Social Survey. We hence match 1990 immigrant stock data (drawn from 1990 population census) with attitudes elicited in the 2000s, and match 2000 immigrant stock data with

attitudes elicited in the 2010s. Column 2 includes both the immigrants' share 10 years ago and the inflow of migrants during the last decade, obtained by the variation over time in the immigrants's share between the beginning and the end of the decade. Table 10 suggests that it is not only the more recent immigration (newcomers arrived less than 10 years ago) that is associated with a lower support fo redistribution , but also that the more ancient immigration (arrived more than 10 years ago) seems to reduce pro-redistribution attitudes.

Table 9: Immigration and pro-redistribution attitudes : immigrants' origin and skills

Sample : rightist respondent in countries in which attitudes are negatively correlated with regional immigrant stock (France, Netherlands, Norway, Sweden, Finland)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
share. immigrants (log)	-0.138***												
	(0.039)												
share immigrants from EU15 (log)		-0.055			0.024				0.039				0.065
		(0.036)			(0.033)				(0.070)				(0.040)
share immi from East-Europe (log)			-0.091***		-0.036								
			(0.028)		(0.036)								
share immi from rest of the World (log)				-0.159***	-0.144***								
				(0.035)	(0.045)								
share immi from high-GDP countries (log)						-0.097***		-0.010	-0.053				
						(0.035)		(0.042)	(0.091)				
share immi from low-GDP countries (log)							-0.140***	-0.134***	-0.126***				
							(0.031)	(0.036)	(0.040)				
share tertiary educated immigrants (log)										-0.168***		-0.085	-0.076
										(0.046)		(0.103)	(0.104)
share primary and secondary educated immi (log)											-0.126***	-0.069	-0.132
											(0.036)	(0.084)	(0.088)
R2	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
N	14,417	14,417	14,417	14,417	14,417	14,417	14,417	14,417	14,417	14,417	14,417	14,417	14,417
test equality coef	.	.	.	.	.0068	.	.	.0718	.5472	.	.	.9285	.7622
country-year FE	X	X	X	X	X	X	X	X	X	X	X	X	X
regional control	X	X	X	X	X	X	X	X	X	X	X	X	X
indiv-controls	X	X	X	X	X	X	X	X	X	X	X	X	X
ind income	X	X	X	X	X	X	X	X	X	X	X	X	X
indiv cont inc ideology	X	X	X	X	X	X	X	X	X	X	X	X	X
average attitude	3.42	3.42	3.42	3.42	3.42	3.42	3.42	3.42	3.42	3.42	3.42	3.42	3.42

East-Europe countries are the so-called A10 countries joining the EU after 2004 : Romania, Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, ,Slovakia, Slovenia. Low -GDP countries are countries of origin with a GDP per capita in 2000 lower than the median GDP per capita of all potential origin countries (193 countries). High -GDP countries are countries of origin with a GDP per capita higher than the median. The median has been computed in such a way that the number of immigrants in each of this two group of origin countries is equal when we sum the total of all immigrants in the 16 European destination countries

Table 10: Pro-redistribution attitudes and recent and more ancient immigration

share of immigrants 10 years ago (log)	-0.107***	-0.143***
	(0.036)	(0.040)
immigrants inflow during the last decade		-0.253**
		(0.115)
R2	0.23	0.23
N	14,417	14,417
test equality coef	.004	.3335
country-year FE		
regional control	X	X
indiv-controls	X	X
ind income	X	X
indiv cont inc ideology	X	X
average attitude	3.42	3.42

The sample is restricted to rightist respondent in countries in which attitudes are negatively correlated with regional immigrant stock (France, Netherlands, Norway, Sweden, Finland) *share of immigrants a decade ago (log)* is the share of immigrants in the population measured approximately 10 years before the preferences for redistribution are elicited. *inflow during the last decade* is the difference in the log of immigrants' share between t and $t - 10$.

5 Robustness (to be completed)

Table 11 tests the robustness of the finding to the use of alternative measures of attitudes towards redistribution. We have so far relied on the answers to the statement that "The government should take measures to reduce differences in income levels". In the 2008 round of the European Social Survey, a specific module has been designed to elicit attitudes towards the Welfare State. A series of different questions were asked to measure subjecti ve opinions about taxes, social benefits, and governments' responsibility for the well-being of unemployed, old, or sick people. Interestingly, as table 1 reveals, those alternative measures are only weakly positively correlated with the main outcome variable used in the previous analysis. They generally explain less than 7% of the variability in the main outcome variable Examining how these alternative measures are correlated with the share of immigrants therefore provides additional valuable information.

Table 11 reveals that the negative association between immigrants' share and natives' support for redistribution is robust to using these alternative mesures of attitudes. This also holds when we control for the most exhaustive set of individual controls, including individual political affiliation, inequality aversion and sense of fairness (panel B).

Table 11: Robustness checks: alternative pro-redistribution attitudes measures (ESS sample in 2008)

Panel A	pro redis scale	pro inc equality	pro increase taxes	score pro benefits	progov Healthcare	progov old	progov unemployed	score provgov
share. immigrants (log)	-0.091*	-0.119**	-0.070	-0.799***	-0.255***	-0.162**	-0.473***	-1.336***
	(0.051)	(0.053)	(0.097)	(0.224)	(0.070)	(0.077)	(0.129)	(0.416)
R2	0.15	0.13	0.06	0.12	0.09	0.13	0.13	0.16
N	16,941	16,851	16,353	16,104	16,906	16,908	16,827	16,598
country-year FE	X	X	X	X	X	X	X	X
regional control	X	X	X	X	X	X	X	X
indiv-controls	X	X	X	X	X	X	X	X
ind cont income	X	X	X	X	X	X	X	X
indiv cont inc ideology								
Panel B	pro redis scale	pro inc equality	pro increase taxes	score pro benefits	progov Healthcare	progov old	progov unemployed	score provgov
share. immigrants (log)	-0.036	-0.096**	-0.009	-0.629***	-0.250***	-0.157**	-0.427***	-1.211***
	(0.045)	(0.046)	(0.097)	(0.218)	(0.062)	(0.064)	(0.095)	(0.322)
R2	0.23	0.18	0.14	0.20	0.14	0.18	0.18	0.24
N	15,364	15,302	14,951	14,710	15,343	15,344	15,290	15,118
country-year FE	X	X	X	X	X	X	X	X
regional control	X	X	X	X	X	X	X	X
indiv-controls	X	X	X	X	X	X	X	X
ind cont income	X	X	X	X	X	X	X	X
indiv cont inc ideology	X	X	X	X	X	X	X	X
average welfare attitudes	3.72	3.54	5.3	11.8	8.47	8.19	6.73	38.45

pro redis scale is agreement with that Government should reduce differences in income levels. *pro-inc-equality* is the agreement with the statement that For fair society, differences in standard of living should be small. *pro-increase-taxes* is the support for Government increase in taxes and social spending. *score-pro-benefits* is the sum of disagreement with the statements that Social benefits or service cost too much in taxes or charges, that they make people lazy, that they make people less willing to care for one another, and people less willing to look after themselves/family. *progov-Healthcare* is the agreement that government should be responsible for Health care for the sick. *progov-old* is the agreement that government should be responsible for Standard of living for the old. *progov-unemployed* is the agreement that government should be responsible for the Standard of living for the unemployed. *score-provgov* is sum of support for governments' responsibility for sick, old, unemployed.

6 Conclusions (to be completed)

European countries are receiving a larger and larger amount of immigrants not only from other European countries but also from other regions of the world. As a result their populations are becoming more heterogenous with a large increase of non natives. In this paper we show that the increase in heterogeneity of European populations is putting pressure of the generous welfare systems of these countries. Natives are becoming less favorable to redistribution presumably because they see the benefits of these policies being spread towards poorer non natives. These effects are confined to self reported right wing respondents while left leaning ones are un affected by the level of immigration: they remain favorable to redistribution even when immigration increases. We also found that the more distant (culturally) are the immigrants relative to European countries, the stronger is the anti redistribution effect on natives. While the latter seem willing to share welfare benefits with fellow Europeans they become less favorable to redistribution when the share on non European immigrants increases These effects are much stronger for a subset of receiving countries in Northern Europe and France. We have obtained these results using a newly assembled data set on regional distribution of immigrants in 140 regions in 16 European countries, and the construction of this data set is in itself a contribution of our paper. .

;

References

Adema, W., P. Fron and M. Ladaique (2011), "Is the European Welfare State Really More Expensive. Indicators on Social Spending, 1980-2012 and a Manual to the OECD Social Expenditure Database (SOCX)." *OECD Social, Employment and Migration Working Paper* No. 124.

Alesina, A., R. Baqir and W. Easterly (1999), "Public Goods and Ethnic Divisions." *Quarterly Journal of Economics,* 114(4): 1243-1284.

Alesina, A., R. Baqir and C. Hoxby (2004), "Political Jurisdictions in Heterogeneous Communities." *Journal of Political Economy*, 112(2): 348-396.

Alesina, A., A. Devleeschauwer, W. Easterly, S. Kurlat and R. Wacziarg (2003), "Fractionalization." *Journal of Economic Growth,* 8(2): 155-194.

Alesina, A. and E. La Ferrara (2005), "Preferences for Redistribution in the Land of Opportunities." *Journal of Public Economics*, 89(5): 897-931.

Alesina, A. and N. Fuchs-Schündeln (2007), "Goodbye Lenin (or Not?): The Effect of Communism on People." *American Economic Review*, 97(4): 1507-1528.

Alesina, A. and P. Giuliano (2010), "Preferences for Redistribution." in J. Beb bib, M. Jackson and A. Bisin (eds.): *Handbook of Social Economics*, Vol. 1A, The Netherlands: North Holland: 93-131.

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

Alesina, A., J. Harnoss and H. Rapoport (2013), "Birthplace Diversity and Economic Prosperity." *NBER Working Paper No.* 18699.

Beine, M., F. Docquier and M. Schiff (2013), "Migration, Transfer of Norms and Home Country Fertility." *Canadian Journal of Economics*, 46(4): 1406-1430.

Benabou, R. and E. Ok (2001), "Social Mobility and the Demand for Redistribution: The POUM Hypothesis." *Quarterly Journal of Economics*, 116(2): 447-487.

Boeri, T. (2010), Immigration to the Land of Redistribution. *Economica* 77(308): 651-687.

Borjas, G. (1999), "Immigration and Welfare Magnets." *Journal of Labor Economics*, 17(4): 607-637.

Burgoon, B., F. Koster and M. van Egmond (2012), "Support for Redistribution and the Paradox of Immigration." *Journal of European Social Policy*, 22(3): 288-304.

Burgoon, B. (2014), "Immigration, Integration and Support for Redistribution in Europe." *World Politics*, 66(3), forthcoming.

Brucker H., Capuano, S. and Marfouk, A. (2013). Education, gender and international migration: insights from a panel-dataset 1980-2010, mimeo.

Card, D., C. Dustmann and I. Preston (2005), "Understanding Attitudes to Immigration: The Migration and Minority Module of the first European Social Survey." *CDP Working Paper* No 03/05.

Card, D., C. Dustmann and I. Preston (2012), "Immigration, Wages, and Compositional Amenities." *Journal of the European Economic Association,* 10(1): 78-119.

Cavalli-Sforza, L., P. Menozzi and A. Piazza (1994), "The History and Geography of Human Genes." *Princeton University Press*, Princeton.

Collier, P. (2013): Exodus. Immigration and Multiculturalism in the 21st Century, Oxford: Oxford University Press.

Corneo, G. (2001), "Inequality and the State: Comparing U.S. and German Preferences." *Annales d'Economie et de Statistique*, 63-64: 283-296.

Corneo, G., and H. Grüner (2002), "Individual Preferences for Political Redistribution." *Journal of Public Economics*, 83(1), 83-107.

Dahlberg, M., K. Edmark and H. Lundqvist (2012), "Ethnic Diversity and Preferences for Redistribution." *Journal of Political Economy*, 120(1): 41-76.

Desmet, K., I. Ortuño-Ortín and R. Wacziarg (2012), "The Political Economy of Ethnolinguistic Cleavages." *Journal of Development Economics,* 97(2): 322-338.

Dequied, V. and Y. Zenou (2013), "International Migration, Imperfect Information and Brain Drain." *Journal of Development Eocnomics*, 101: 117-132.

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

Docquier, F., Lowell, B. and L. Marfouk, A. (2009). A gendered assessment of highly skilled emigration. *Population and Development Review* , 35(2), 297–321.

Dumont, J.-P., G. Spielvogel and S. Widmaier (2010), "International Migrants in Developed, Emerging and Developing Countries: an Extended Profile." *OECD Social, Employment and Migration Working Papers* No. 114.

Finseraas, H. (2009), "Income Inequality and Demand for Redistribution: A Multilevel

Analysis of European Public Opinion." *Scandinavian Political Studies*, 32(1): 94-119.

Fong, C. (2001), "Social Preferences, Self-interest and the Demand for Redistribution." *Journal of Public Economics*, 82(2): 225-246.

Fong, C. and E. Luttmer (2009), "What Determines Giving to Hurricane Katrina Victims? Experimental Evidence on Racial Group Loyalty." *American Economic Journal: Applied Economics*, 1(2): 64-87.

Grogger, J. and G. Hanson (2011), "Income Maximization and the Selection and Sorting of International Migrants." *Journal of Development Economics,* 95: 42-57.

Guillaud, E. (2011), "Preferences for Redistribution: An Empirical Analysis over 33 Countries." *Journal of Economic Inequality*, 11(1): 57-78.

Hainmueller, J. and M. Hiscox (2007), "Educated Preferences: Explaining Attitudes Toward Immigration in Europe." *International Organization*, 61(2): 399-442.

Harnoss, J. (2013), "Birthplace Diversity and Attitudes to Immigration." *Mimeo.*

Head, K., T. Mayer and J. Ries (2010), "The Erosion of Colonial Trade Linkages after Independence." *Journal of International Economics*, 81(1): 1-14.

Feenstra, R., R. Inklaar and M. Timmer (2013), "The Next Generation of The Penn World Table." Available for download at www.ggdc.net/pwt.

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

Lazear, E. (1999), "Culture and Language." *Journal of Political Economy* 107(6): 95-126.

Luttmer, E. (2001), "Group Loyalty and the Taste for Redistribution." *Journal of Political Economy*, 109(3): 500-528.

Luttmer, E. and M. Singhal (2011), "Culture, Context, and the Taste for Redistribution." *American Economic Journal: Economic Policy*, 3(1): 157-179.

Magni-Berton, R. (2013), "Immigration, Redistribution, and Universal Suffrage." *Public Choice*: 1-19.

Mayda, A. (2006), "Who Is Against Immigration? A Cross–country Investigation of Individual–level Attitudes toward Immigrants." *Review of Economics and Statistics*, 88(3): 510–530.

Mayda, A. (2010), "International Migration: A Panel Data Analysis of the Determinants of Bilateral Flows." *Journal of Population Economics,* 23(4): 1249-1274.

Meltzer, A. and S. Richard (1981), "A Rational Theory of the Size of Government." *Journal of Political Economy*, 89(5): 914-927.

J Jofre-Monseny, P Sorribas-Navarro, J Vázquez-Grenno (2016) " *International Tax and Public Finance* 23 (6): 1004-1029.

Muñoz, J. and S. Pardos (2014), "Immigration and Support for the Welfare State: An Experimental Comparison of Universal and Means-Tested Policies." *unpublished manuscript.*

O'Rourke, K. and R. Sinnott (2006), "The determinants of individual attitudes towards immigration." *European Journal of Political Economy*, 22(4): 838-861.

Ortega, F. and G. Peri (2009), "The Causes and Effects of International Migrations: Evidence from OECD countries 1980-2005." *NBER* Working Paper 14833.

Ortega, F. and G. Peri (2013), "Openness and Income: the Roles of Trade and Migration." *Journal of International Economics*, forthcoming.

Ortega, F. and J. Polavieja (2012), "Labor Market Exposure as Determinant of Attitudes toward Immigration." *Labour Economics*, 19(3): 298-311.

Ozden, C., Parsons, C. R., Schiff, M., and Walmsley, T. (2011). Where on earth is everybody? The evolution of global bilateral migration 1960– 2000 . *World Bank Economic Review*, 25(1), 12–56.

Peri, G. and C. Sparber (2009), "Task Specialization, Immigration, and Wages." *American Economic Journal: Applied Economics*, 1(3): 135-69.

Piketty, T. (1995), "Social Mobility and Redistributive Politics." *Quarterly Journal of Economics*, 110(3): 551-584.

Putnam, R. (1995), "Bowling Alone: America's Declining Social Capital." *Journal of Democracy*, 6(1): 65-78.

Santos Silva, J. and S. Tenreyro (2006), "The Log of Gravity." *The Review of Economics and Statistics,* 88(4): 641-658.

Scheve, K. and M. Slaughter (2001), "Labor Market Competition and Individual Preferences Over Immigration Policy." *Review of Economics and Statistics*, 83(1): 133-145.

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(3): 345-370.

Sinn, H.-W. (1995), "A Theory of the Welfare State." *Scandinavian Journal of Eco-*

nomics, 95(4): 495-526.

Sorkoa, S., Johnston, R. and K. Banting (2006), "Ties that Bind: Social Cohesion and Diversity in Canada." In K. Banting, T. Courchene and F. Seidle, eds., *The Art of the State III: Belonging? Diversity, Recognition and Shared Citizenship in Canada.* Montreal: Institute for Research in Public Policy.

Spolaore, E. and R. Wacziarg (2009), "The Diffusion of Development." *Quarterly Journal of Economics,* 124(2): 469-529.

Stichnoth, H. (2012), "Does Immigration Weaken Natives' Support for the Unemployed? Evidence from Germany." *Public Choice,* 151(3/4): 631-654.

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.

Stock, J. and M. Yogo (2002), "Testing for Weak Instruments in Linear IV Regression." In Donald Andrews and James H. Stock, eds. Identification and Inference for Econometric Models: Essays in Honor of Thomas Rothenberg, New York, NY: *Cambridge University Press.*

7 Appendix

Table 1: Correlations between main welfare attitudes and alternative measures (ESS sample in 2008)

dependent variable pro redis scale				
pro inc equality 1	0.178***			
	(0.041)			
pro inc equality 2	0.578***			
	(0.041)			
pro inc equality 3	1.035***			
	(0.039)			
pro inc equality 4	1.583***			
	(0.042)			
pro increase taxes 1		-0.093		
		(0.075)		
pro increase taxes 2		-0.141**		
		(0.059)		
pro increase taxes 3		-0.160***		
		(0.055)		
pro increase taxes 4		-0.129**		
		(0.054)		
pro increase taxes 5		0.006		
		(0.051)		
pro increase taxes 6		0.129**		
		(0.053)		
pro increase taxes 7		0.202***		
		(0.054)		
pro increase taxes 8		0.307***		
		(0.055)		
pro increase taxes 9		0.407***		
		(0.065)		
pro increase taxes 10		0.514***		
		(0.066)		
score pro benefits			0.024***	
			(0.002)	
score provgov				0.038***
				(0.001)
progov Healthcare 1				-0.102
				(0.214)
progov Healthcare 2				-0.052
				(0.187)
progov Healthcare 3				-0.187
				(0.175)
progov Healthcare 4				0.110
				(0.165)
progov Healthcare 5				0.306*
				(0.159)
progov Healthcare 6				0.351**
				(0.159)
progov Healthcare 7				0.367**
				(0.156)
progov Healthcare 8				0.407***
				(0.156)
progov Healthcare 9				0.507***
				(0.156)
progov Healthcare 10				0.707***
				(0.156)
progov old 1				-0.252
				(0.210)
progov old 2				-0.354*
				(0.186)

Continued on next page...

dependent variable pro redis scale

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
progov old 3						-0.276	
						(0.171)	
progov old 4						-0.118	
						(0.165)	
progov old 5						-0.056	
						(0.159)	
progov old 6						0.108	
						(0.159)	
progov old 7						0.209	
						(0.158)	
progov old 8						0.370**	
						(0.157)	
progov old 9						0.479***	
						(0.157)	
progov old 10						0.699***	
						(0.157)	
progov unemployed 1							-0.075
							(0.114)
progov unemployed 2							0.080
							(0.093)
progov unemployed 3							0.060
							(0.086)
progov unemployed 4							0.153*
							(0.083)
progov unemployed 5							0.297***
							(0.080)
progov unemployed 6							0.396***
							(0.081)
progov unemployed 7							0.478***
							(0.080)
progov unemployed 8							0.649***
							(0.080)
progov unemployed 9							0.764***
							(0.082)
progov unemployed 10							0.929***
							(0.081)
Constant	2.872***	3.653***	3.441***	2.277***	3.222***	3.326***	3.235***
	(0.038)	(0.050)	(0.026)	(0.035)	(0.155)	(0.157)	(0.079)
R2	0.18	0.02	0.01	0.07	0.03	0.05	0.05
N	24,999	23,675	23,257	24,415	25,120	25,117	24,970
average welfare attitudes	2.54	5.3	11.8	38.45	8.47	8.19	6.73

Table 2: Statistics Descriptive among the ESS estimation sample

	mean	standard deviation	min	max
pro redistribution attitudes scale	3.788	1.054	1.000	5.000
regional share. foreign	0.109	0.064	0.015	0.424
regional ln share. foreign	-2.392	0.614	-4.188	-0.858
share richest immi	0.058	0.043	0.007	0.265
share poorest immi	0.051	0.034	0.003	0.235
share Europe North America	0.063	0.047	0.007	0.282
share non Europe NA	0.045	0.034	0.002	0.246
share tertiary immi	0.029	0.024	0.002	0.185
share primary immi	0.037	0.024	0.005	0.176
share secondary immi	0.042	0.027	0.003	0.139
regional ln native pop	14.436	0.990	12.078	16.503
regional log gdp per capita	10.156	0.282	9.473	10.917
regional unemployment rate 2064	7.453	4.914	1.700	29.500
log share tertiary educated native	-1.458	0.384	-2.783	-0.742
birth cohort	1955.615	18.905	1920.000	2000.000
male	0.477	0.499	0.000	1.000
Less than lower secondary education (ISCED 0-1)	0.176	0.381	0.000	1.000
Lower secondary education completed (ISCED 2)	0.185	0.388	0.000	1.000
Upper secondary education completed (ISCED 3)	0.341	0.474	0.000	1.000
Post-secondary non-tertiary education completed (ISCED 4)	0.038	0.191	0.000	1.000
Tertiary education completed (ISCED 5-6)	0.260	0.439	0.000	1.000
immigrant from EU	0.000	0.000	0.000	0.000
immigrant from non-EU	0.000	0.000	0.000	0.000
parents immigrant from EU	0.025	0.155	0.000	1.000
parents immigrant from non-EU	0.049	0.217	0.000	1.000
highest parents'edu: lower secondary	0.159	0.365	0.000	1.000
highest parents'edu: upper secondary	0.259	0.438	0.000	1.000
highest parents'edu: tertiary secondary	0.172	0.378	0.000	1.000
number children in household	7.428	1.215	0.000	9.000
number adults in household	0.952	0.914	0.000	9.000
number elderly in household	0.122	0.344	0.000	6.000
suburbs	0.147	0.355	0.000	1.000
small city	0.295	0.456	0.000	1.000
village	0.302	0.459	0.000	1.000
home in country side	0.093	0.290	0.000	1.000
self-employed	0.080	0.271	0.000	1.000
inactive	0.096	0.294	0.000	1.000
in school	0.085	0.279	0.000	1.000
unemployed,looking for job	0.037	0.189	0.000	1.000
unemployed, not looking	0.015	0.122	0.000	1.000
permanently sick or disabled	0.024	0.154	0.000	1.000
retired	0.231	0.422	0.000	1.000
ISCO 88 2 digits	47.921	24.831	0.000	93.000
household income quantile	2.745	1.400	1.000	5.000
Feeling about household's income nowadays	1.850	0.822	1.000	4.000
Important that people are treated equally and have equal opportunities	2.027	1.016	1.000	6.000
Important to help people and care for others well-being	2.170	0.965	1.000	6.000
Placement on left right scale	5.108	2.091	0.000	10.000
Most people try to take advantage of you, or try to be fair 36	5.942	2.185	0.000	10.000
Observations	124402			

pro redis scale is the agreement with that Government should reduce differences in income levels

Table 3: Immigration and pro-redis attitudes 5 point scale

ln share. foreign	-0.087***	-0.104***	-0.100***	-0.103***	-0.079***
	(0.019)	(0.027)	(0.027)	(0.025)	(0.022)
ln native pop		-0.035***	-0.032***	-0.026**	-0.022**
		(0.011)	(0.011)	(0.011)	(0.010)
log regional gdp per cap		-0.036	-0.019	-0.008	-0.026
		(0.062)	(0.064)	(0.060)	(0.052)
regional unemployment rate		0.012***	0.010***	0.007**	0.004
		(0.003)	(0.003)	(0.003)	(0.003)
log share tertiary educated native		0.113	0.171***	0.186***	0.157***
		(0.069)	(0.064)	(0.062)	(0.056)
born before 1929 * female			0.036	0.016	0.069
			(0.070)	(0.070)	(0.071)
born betw 1930-1939 * female			0.105	0.070	0.115
			(0.071)	(0.071)	(0.071)
born betw 1940-1949 * female			0.122*	0.078	0.107
			(0.068)	(0.068)	(0.068)
born betw 1950-1959 * female			0.151**	0.096	0.095
			(0.071)	(0.071)	(0.071)
born betw 1960-1969 * female			0.105	0.042	0.045
			(0.071)	(0.072)	(0.071)
born betw 1970-1979 * female			0.078	0.008	0.012
			(0.072)	(0.073)	(0.071)
born betw 1980-1989 * female			0.077	-0.008	-0.032
			(0.073)	(0.073)	(0.072)
born after 1990 * female			0.013	-0.061	-0.097
			(0.075)	(0.075)	(0.076)
2000 * female			-0.298	-0.299	-0.468**
			(0.191)	(0.193)	(0.210)
born before 1929 * male			0.102	0.106	0.149*
			(0.090)	(0.087)	(0.087)
born betw 1930-1939 * male			0.142	0.135	0.187**
			(0.088)	(0.086)	(0.085)
born betw 1940-1949 * male			0.154*	0.138*	0.171**
			(0.086)	(0.084)	(0.083)
born betw 1950-1959 * male			0.176**	0.143*	0.149*
			(0.088)	(0.086)	(0.085)
born betw 1960-1969 * male			0.077	0.036	0.063
			(0.087)	(0.085)	(0.084)
born betw 1970-1979 * male			0.116	0.054	0.081
			(0.087)	(0.086)	(0.085)
born betw 1980-1989 * male			0.134	0.059	0.071
			(0.088)	(0.086)	(0.086)
born after 1990 * male			-0.006	-0.056	-0.043
			(0.091)	(0.090)	(0.089)
2000 * male			-0.536	-0.509	-0.448

Continued on next page...

	(0.448)	(0.436)	(0.433)
Less than lower secondary education (ISCED 0-1) * female	0.200***	0.149***	0.138**
	(0.057)	(0.057)	(0.054)
Lower secondary education completed (ISCED 2) * female	0.236***	0.218***	0.210***
	(0.056)	(0.056)	(0.053)
Upper secondary education completed (ISCED 3) * female	0.210***	0.211***	0.199***
	(0.054)	(0.054)	(0.050)
Post-secondary non-tertiary education completed (ISCED 4) * female	0.181***	0.193***	0.171***
	(0.055)	(0.055)	(0.052)
Tertiary education completed (ISCED 5-6) * female	0.088	0.145***	0.115**
	(0.054)	(0.054)	(0.050)
Less than lower secondary education (ISCED 0-1) * male	0.133**	0.062	0.049
	(0.059)	(0.058)	(0.057)
Lower secondary education completed (ISCED 2) * male	0.120**	0.092	0.090
	(0.059)	(0.058)	(0.057)
Upper secondary education completed (ISCED 3) * male	0.040	0.035	0.046
	(0.059)	(0.057)	(0.057)
Post-secondary non-tertiary education completed (ISCED 4) * male	0.025	0.047	0.049
	(0.064)	(0.061)	(0.061)
Tertiary education completed (ISCED 5-6) * male	-0.177***	-0.069	-0.068
	(0.060)	(0.057)	(0.057)
parents immigrant from EU	-0.025	-0.028	-0.054***
	(0.021)	(0.020)	(0.019)
parents immigrant from non-EU	0.020	0.010	-0.027*
	(0.017)	(0.017)	(0.016)
highest parents'edu: lower secondary	-0.076***	-0.060***	-0.048***
	(0.012)	(0.012)	(0.011)
highest parents'edu: upper secondary	-0.133***	-0.104***	-0.091***
	(0.011)	(0.011)	(0.010)
highest parents'edu: tertiary secondary	-0.203***	-0.156***	-0.154***
	(0.014)	(0.013)	(0.012)
missing eduparents	-0.029*	-0.035**	-0.028*
	(0.017)	(0.016)	(0.016)
number adults in household	-0.024***	0.003	0.003
	(0.004)	(0.004)	(0.004)
number elderly in household	-0.004	0.014	0.021**
	(0.009)	(0.009)	(0.009)
suburbs	-0.029	-0.022	-0.002
	(0.018)	(0.018)	(0.016)
small city	-0.026	-0.025	-0.005
	(0.016)	(0.016)	(0.014)
village	-0.037**	-0.036**	-0.002
	(0.016)	(0.016)	(0.014)
home in country side	-0.013	-0.017	0.017
	(0.022)	(0.021)	(0.020)
self-employed	-0.172***	-0.139***	-0.109***
	(0.013)	(0.013)	(0.013)

Continued on next page...

38

inactive	0.010	-0.016	-0.007
	(0.013)	(0.012)	(0.012)
unemployed,looking for job	0.145***	0.043**	0.039**
	(0.020)	(0.020)	(0.020)
unemployed, not looking	0.121***	0.035	0.025
	(0.023)	(0.023)	(0.022)
permanently sick or disabled	0.185***	0.095***	0.074***
	(0.020)	(0.020)	(0.019)
retired	0.003	-0.018	-0.008
	(0.014)	(0.013)	(0.012)
Legislators and senior officials		0.023	-0.022
		(0.082)	(0.077)
Corporate managers		-0.212***	-0.187***
		(0.022)	(0.021)
General managers		-0.051***	-0.030
		(0.020)	(0.019)
Physical, mathematical and engineering science professionals		-0.152***	-0.150***
		(0.023)	(0.022)
Life science and health professionals		-0.010	-0.033
		(0.023)	(0.022)
Teaching professionals		0.142***	0.063***
		(0.018)	(0.016)
Other professionals		0.023	-0.013
		(0.019)	(0.017)
Physical and engineering science associate professionals		-0.009	-0.019
		(0.024)	(0.023)
Life science and health associate professionals		0.107***	0.074***
		(0.022)	(0.021)
Teaching associate professionals		0.163***	0.080***
		(0.031)	(0.028)
Other associate professionals		-0.056***	-0.056***
		(0.015)	(0.014)
Office clerks		0.044***	0.039***
		(0.015)	(0.014)
Customer services clerks		0.061***	0.060***
		(0.021)	(0.020)
Personal and protective services workers		0.099***	0.076***
		(0.013)	(0.012)
Models, salespersons and demonstrators		0.017	0.012
		(0.016)	(0.015)
Market-oriented skilled agricultural and fishery workers		0.035*	0.057***
		(0.020)	(0.021)
Extraction and building trades workers		0.098***	0.086***
		(0.015)	(0.015)
Metal, machinery and related trades workers		0.101***	0.082***
		(0.017)	(0.017)
Precision, handicraft, printing and related trades workers		0.112***	0.063**

Continued on next page...

	(0.031)	(0.030)
Other craft and related trades workers	0.073***	0.071***
	(0.022)	(0.022)
Stationary-plant and related operators	0.057	0.024
	(0.035)	(0.033)
Machine operators and assemblers	0.112***	0.088***
	(0.018)	(0.018)
Drivers and mobile-plant operators	0.102***	0.103***
	(0.019)	(0.020)
Sales and services elementary occupations	0.117***	0.089***
	(0.015)	(0.015)
Agricultural, fishery and related labourers	0.024	0.023
	(0.030)	(0.031)
Labourers in mining, construction, manufacturing and transport	0.098***	0.084***
	(0.018)	(0.019)
hh income quantile 2	0.054***	0.055***
	(0.010)	(0.009)
hh income quantile 3	-0.001	0.012
	(0.011)	(0.011)
hh income quantile 4	-0.042***	-0.025**
	(0.012)	(0.011)
hh income quantile 5	-0.162***	-0.131***
	(0.017)	(0.015)
Coping on present income	0.164***	0.154***
	(0.009)	(0.009)
Difficult on present income	0.258***	0.234***
	(0.013)	(0.013)
Very difficult on present income	0.342***	0.299***
	(0.023)	(0.022)
important equal opportunities : like me		-0.131***
		(0.008)
important equal opportunities :somewhat like me		-0.236***
		(0.011)
important equal opportunities :little like me		-0.341***
		(0.015)
important equal opportunities :nor like me		-0.440***
		(0.023)
important equal opportunities :not all like me		-0.358***
		(0.052)
important to help and care for people : like me		-0.012
		(0.009)
important to help and care for people :somewhat like me		-0.068***
		(0.009)
important to help and care for people :little like me		-0.111***
		(0.016)
important to help and care for people :nor like me		-0.187***
		(0.026)

Continued on next page...

important to help and care for people :not all like me					-0.136**
					(0.061)
(0)left-right(10): 1					0.289***
					(0.030)
(0)left-right(10): 2					0.242***
					(0.019)
(0)left-right(10): 3					0.119***
					(0.015)
(0)left-right(10): 4					0.010
					(0.013)
(0)left-right(10): 5					-0.103***
					(0.014)
(0)left-right(10): 6					-0.222***
					(0.017)
(0)left-right(10): 7					-0.360***
					(0.019)
(0)left-right(10): 8					-0.405***
					(0.024)
(0)left-right(10): 9					-0.444***
					(0.034)
(0)left-right(10): 10					-0.341***
					(0.033)
Most people try to take advantage of me: 1					-0.021
					(0.032)
Most people try to take advantage of me: 2					-0.027
					(0.029)
Most people try to take advantage of me: 3					-0.054**
					(0.025)
Most people try to take advantage of me: 4					-0.034
					(0.027)
Most people try to take advantage of me: 5					-0.032
					(0.024)
Most people try to take advantage of me: 6					-0.037
					(0.026)
Most people try to take advantage of me: 7					-0.033
					(0.024)
Most people try to take advantage of me: 8					-0.013
					(0.025)
Most people try to take advantage of me: 9					-0.009
					(0.028)
Most people try to take advantage of me: 10 (no at all)					0.021
					(0.028)
Constant	3.580***	4.482***	4.298***	4.001***	4.436***
	(0.046)	(0.758)	(0.791)	(0.744)	(0.651)
R2	0.11	0.11	0.14	0.16	0.21
N	124,402	124,402	124,402	124,402	124,402
country-year FE	X	X	X	X	X

Continued on next page...

regional control		X	X	X	X
indiv-controls			X	X	X
ind income				X	X
indiv cont inc ideology					X
average attitude	3.79	3.79	3.79	3.79	3.79

Table 4: Lists of NUTS regions in the matched attitudinal immigrants stocks data

	Country	NUTS region	NUTS level	Region' s name
AT	Austria	AT11	2	Burgenland
AT	Austria	AT12	2	Niedersterreich
AT	Austria	AT13	2	Wien
AT	Austria	AT21	2	Krnten
AT	Austria	AT22	2	Steiermark
AT	Austria	AT31	2	Obersterreich
AT	Austria	AT32	2	Salzburg
AT	Austria	AT33	2	Tirol
AT	Austria	AT34	2	Vorarlberg
BE	Belgium	BE1	1	Brussels region
BE	Belgium	BE2	1	Flemish region
BE	Belgium	BE3	1	Walloon region
CH	Switzerland	CH01	2	Lake Geneva region
CH	Switzerland	CH02	2	Espace Mittelland
CH	Switzerland	CH03-CH04	2	Northwestern Switzerland - Zurich
CH	Switzerland	CH05	2	Eastern Switzerland
CH	Switzerland	CH06	2	Central Switzerland
CH	Switzerland	CH07	2	Ticino
DE	Germany	DE1	1	Baden-Wurttemberg
DE	Germany	DE2	1	Bayern
DE	Germany	DE3	1	Berlin
DE	Germany	DE4	1	Brandenburg
DE	Germany	DE5	1	Bremen
DE	Germany	DE6	1	Hamburg
DE	Germany	DE7	1	Hessen
DE	Germany	DE8	1	Mecklenburg-Vorpommern
DE	Germany	DE9	1	Niedersachsen
DE	Germany	DEA	1	Nordrhein-Westfalen
DE	Germany	DEB	1	Rheinland-Pfalz
DE	Germany	DEC	1	Saarland
DE	Germany	DED	1	Sachsen
DE	Germany	DEE	1	Sachsen-Anhalt
DE	Germany	DEF	1	Schleswig-Holstein
DE	Germany	DEG	1	Thuringen
DK	Denmark	DK01	2	Hovedstaden
DK	Denmark	DK02	2	Sjlland
DK	Denmark	DK03	2	Syddanmark
DK	Denmark	DK04	2	Midtjylland
DK	Denmark	DK05	2	Nordjylland
ES	Spain	ES11	2	Galicia
ES	Spain	ES12	2	Principado de Asturias
ES	Spain	ES13	2	Cantabria
ES	Spain	ES21	2	Pas Vasco
ES	Spain	ES22	2	Comunidad Foral de Navarra
ES	Spain	ES23	2	La Rioja
ES	Spain	ES24	2	Aragun
ES	Spain	ES30	2	Comunidad de Madrid
ES	Spain	ES41	2	Castilla y Len
ES	Spain	ES42	2	Castilla-La Mancha
ES	Spain	ES43	2	Extremadura
ES	Spain	ES51	2	Catalua
ES	Spain	ES52	2	Comunidad Valenciana

Continued on next page...

	Country	NUTS region	NUTS level	Region' s name
ES	Spain	ES53	2	Illes Balears
ES	Spain	ES61	2	Andaluca
ES	Spain	ES62	2	Regin de Murcia
ES	Spain	ES70	2	Canarias
FI	Finland	FI19	2	West Finland
FI	Finland	FI1B-FI1C	2	Helsinki-Uusimaa- South Finland
FI	Finland	FI1D	2	North & East Finland
FR	France	FR1	1	Rgion parisienne
FR	France	FR2	1	Bassin Parisien
FR	France	FR3	1	Nord
FR	France	FR4	1	Est
FR	France	FR5	1	Ouest
FR	France	FR6	1	Sud Ouest
FR	France	FR7	1	Centre Est
FR	France	FR8	1	Mditerrane
GR	Greece	GR11	2	Anatoliki Makedonia, Thraki
GR	Greece	GR12	2	Kentriki Makedonia
GR	Greece	GR13	2	Dytiki Makedonia
GR	Greece	GR14	2	Thessalia
GR	Greece	GR21	2	Ipeiros
GR	Greece	GR22	2	Ionia Nissia
GR	Greece	GR23	2	Dytiki Ellada
GR	Greece	GR24	2	Sterea Ellada
GR	Greece	GR25	2	Peloponnisos
GR	Greece	GR30	2	Attiki
GR	Greece	GR41	2	Voreio Agaio
GR	Greece	GR42	2	Notio Agaio
GR	Greece	GR43	2	Kriti
IE	Ireland	IE011	3	Border
IE	Ireland	IE012	3	Midland
IE	Ireland	IE013	3	West
IE	Ireland	IE021	3	Dublin
IE	Ireland	IE022	3	Mid-East
IE	Ireland	IE023	3	Mid-West
IE	Ireland	IE024	3	South-East
IE	Ireland	IE025	3	South-West
IT	Italy	ITC1	2	Piemonte
IT	Italy	ITC3	2	Liguria
IT	Italy	ITC4	2	Lombardia
IT	Italy	ITF1	2	Abruzzo
IT	Italy	ITF3	2	Campania
IT	Italy	ITF4	2	Puglia
IT	Italy	ITF5	2	Basilicata
IT	Italy	ITF6	2	Calabria
IT	Italy	ITG1	2	Sicilia
IT	Italy	ITG2	2	Sardegna
IT	Italy	ITH1-ITH2	2	Trentino-Alto Adige- Sud Tirol
IT	Italy	ITH3	2	Veneto
IT	Italy	ITH4	2	Friuli-Venezia Giulia
IT	Italy	ITH5	2	Emilia-Romagna
IT	Italy	ITI1	2	Toscana
IT	Italy	ITI2	2	Umbria
IT	Italy	ITI3	2	Marche
IT	Italy	ITI4	2	Lazio
NL	Netherlands	NL11	2	Groningen
NL	Netherlands	NL12	2	Friesland
NL	Netherlands	NL13	2	Drenthe
NL	Netherlands	NL21	2	Overijssel
NL	Netherlands	NL22	2	Gelderland
NL	Netherlands	NL23	2	Flevoland
NL	Netherlands	NL31	2	Utrecht
NL	Netherlands	NL32	2	Noord-Holland
NL	Netherlands	NL33	2	Zuid-Holland
NL	Netherlands	NL34	2	Zeeland
NL	Netherlands	NL41	2	Noord-Brabant

	Country	NUTS region	NUTS level	Region's name
NL	Netherlands	NL42	2	Limburg
NO	Norway	NO01	2	Oslo and Akershus
NO	Norway	NO02	2	Hedmark and Oppland
NO	Norway	NO03	2	South Eastern Norway
NO	Norway	NO04	2	Agder and Rogaland
NO	Norway	NO05	2	Western Norway
NO	Norway	NO06	2	Trondelag
NO	Norway	NO07	2	Northern Norway
PT	Portugal	PT11	2	Norte
PT	Portugal	PT15	2	Algarve
PT	Portugal	PT16	2	Centro
PT	Portugal	PT17	2	Lisboa e Vale do Tejo
PT	Portugal	PT18	2	Alentejo
SE	Sweden	SE11	2	Stockholm
SE	Sweden	SE12	2	stra Mellansverige
SE	Sweden	SE21	2	Smland med arna
SE	Sweden	SE22	2	Sydsverige
SE	Sweden	SE23	2	Vstsverige
SE	Sweden	SE31	2	Norra Mellansverige
SE	Sweden	SE32	2	Mellersta Norrland
SE	Sweden	SE33	2	vre Norrland
UK	United Kingdom	UKC	1	North East
UK	United Kingdom	UKD	1	North West
UK	United Kingdom	UKE	1	Yorkshire and The Humber
UK	United Kingdom	UKF	1	East Midlands
UK	United Kingdom	UKG	1	West Midlands
UK	United Kingdom	UKH	1	East of England
UK	United Kingdom	UKI	1	London
UK	United Kingdom	UKJ	1	South East
UK	United Kingdom	UKK	1	South West
UK	United Kingdom	UKL	1	Wales