

# Immigration and Attitudes toward Redistribution in Europe

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# Motivation & Research Question

- Public generosity (trust, cooperative behavior) travels more easily within the same ethnic, linguistic or religious groups.
- Redistributive policies are generally more extensive in more homogenous societies :
  - Difference in the Welfare State generosity between Western Europe (homogenous) and the U.S. (country built by immigrants) – see Alesina and Glaeser (2004)
- Over the last decades, immigration in Western Europe has dramatically increased and has become a central political issue.
- **Given that Europe has become more diverse, is there a reaction against the Welfare State among the native populations ?**

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# This paper

- We assemble a new dataset of immigrant stocks at the regional level in 140 regions of 16 Western European countries.
  - Census and population register records
  - Combined with attitudinal data from the European Social Survey (2002-2016)
- We establish robust correlations between the share of immigrants and natives' attitudes towards redistribution by
  - Exploiting within-country variations in the immigrants' share (cross-sectional)
  - Holding constant welfare policies set at the national level.

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# This paper

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 average negative association is :

- Driven by the attitudinal response of self-reported center-right-wing respondents while the preferences of left-wing respondents remain unaffected.
- Robust to the inclusion of a rich set of regional and individual controls, as well as to excluding federal countries (where welfare policies are partly set at the regional level).
- Particularly strong in countries with relatively more generous Welfare-State.
- Twice larger for immigration originating from non-European countries.

## Related Literature

- Abondent evidence in the U.S.
  - Alesina et al. (1999, 2004) : greater racial fragmentation is associated with less spending on public goods (schools, roads).
  - Luttmer(2001) : group loyalty effects among black and whites
  - Tabellini (2017): 1910-1930 European immigration to U.S cities triggered hostile political reactions and lower public goods provision (despite economic benefits).
- Sparse evidence in Europe :
  - Dahlberg et al.(2012): anti-redistribution effect of quasi-random refugee placement program in Sweden.
  - Senik et al. (2009) : negative correlation between people's perception of immigrants's presence and attitudes towards redistribution (only for those with negative views about immigrants).
  - Alesina et al (2018) Making people think about immigrants (randomized priming treatment) triggers attitudinal reaction against redistribution.



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# Contribution

Our paper combines :

- A large geographical coverage (16 different European countries)
- New immigration data at the regional level
- An empirical approach based on a rich set of fixed effects, which address some of the endogeneity problems that have plagued previous multi-country descriptive studies

# What this paper does not do

We do no attempt to distinguish between different channels related to:

- **Group loyalty effects** : ingroup favoritism

Individuals prefer to redistribute towards the ingroup and less so towards the outgroup (Tajfel)

- **Fiscal burden**

Native tax payers fear of having to pay for the benefits of poorer immigrants that are viewed as free-riding on the welfare system.

- **Heterogeneity of preferences over the type of public good**

Natives anticipate part of the public budget is spent on public goods that are not among their preferred ones.

- **Labor market competition**

Tighter competition with immigrants leads native workers to demand more redistribution as an insurance against the higher risk downward income mobility.

# Roadmap

- 1 Introduction
- 2 Data
- 3 Empirical strategy
- 4 Results
- 5 Heterogeneity

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# Immigrant stocks at the regional level

- We obtain immigrant stock data by origin country and region of destination using:
  - Population censuses, from the 1991, 2001 and 2011 rounds (10 countries: Austria, Belgium, Ireland, Italy, France, Greece, Portugal, Spain, Switzerland, and the United Kingdom)
  - Population registers (6 countries: Denmark, Finland, Germany, Norway, the Netherlands and Sweden)
- Definition of migrants is based on country of birth (except 2001 Germany)

## Individual attitudinal data

Data on is taken from the [European Social Survey \(ESS\)](#), which elicits individual attitudes every two years since 2002 in 28 European countries.

- Following Luttmer and Singhal (2011) and Senik et al. (2009), we assess preferences towards redistribution by relying on answers to the statement "The government should take measures to reduce differences in income levels" – available every rounds.
- We also use the 2008 and 2016 rounds that includes a specific set of questions on welfare attitudes
  - ① For fair society, differences in standard of living should be small
  - ② Governments' responsibility for (i) Standard of living for the old, (ii) Standard of living for the unemployed, (iii) Child care services for working parents
  - ③ Social benefits/services (i) place too great strain on economy, (ii) cost businesses too much in taxes/charges , (iii) make people lazy

# Individual attitudinal data

Table: Cross-correlations of welfare attitudes

Variables	Var1	Var2	Var3	Var4	Var5	Var6	Var7	Var8
Var1 - Favors Reduction in income differences	1.00							
Var2 - Favor small diff. standard of living for fair society	0.41	1.00						
Var3 - Standard living for the old, gov responsibility	0.22	0.20	1.00					
Var4- Standard living for the unemployed, gov responsibility	0.24	0.24	0.48	1.00				
Var5 - Child care services for working parents, gov responsibility	0.19	0.17	0.43	0.42	1.00			
Var6- Against soc.benefit too great strain on economy	0.08	0.07	0.09	0.19	0.11	1.00		
Var7- Against soc.benefit cost too much for business	0.08	0.07	0.05	0.17	0.08	0.44	1.00	
Var8- Against soc.benefit may people lazy	0.11	0.11	0.08	0.27	0.12	0.38	0.36	1.00

We construct an overall index of attitudes as an average of all variables rescaled from 0 to 1:

$$\text{Index} = \frac{1}{8} \sum_{i=1}^8 \frac{\text{Var}_i - \min(\text{Var}_i)}{\max(\text{Var}_i) - \min(\text{Var}_i)}$$

Then all variables are standardised in such a way that they have a mean of 0 and a standard deviation of 1:

$$\text{Z-var} = \frac{\text{var} - \mathbb{E}[\text{var}]}{\sigma(\text{var})}$$



# Combining attitudes and immigrant stocks data

The ESS provides the place of residence of the respondents :

- at the regional NUTS-2 level for most countries (betw. 900k and 2M inhab.)
- at the regional NUTS-1 level (betw. 3 and 7M inhab.) for Belgium, France, Germany and the UK (e.g. 16 German Lander or 9 French regions)

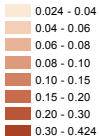
We successfully combine the ESS with the immigrant stocks data across 140 different regions

- We match the biannual ESS rounds from 2002 to 2008 with the 2000 immigrant stocks , and the rounds from 2010 to 2016 with the 2010 stocks

The estimation sample consist of native-born individuals living in one of the EU15 country , plus Norway and Switzerland (excluding East Germany).

Figure: Population share of immigrants in 2010

Share of immigrants in 2010



Country borders

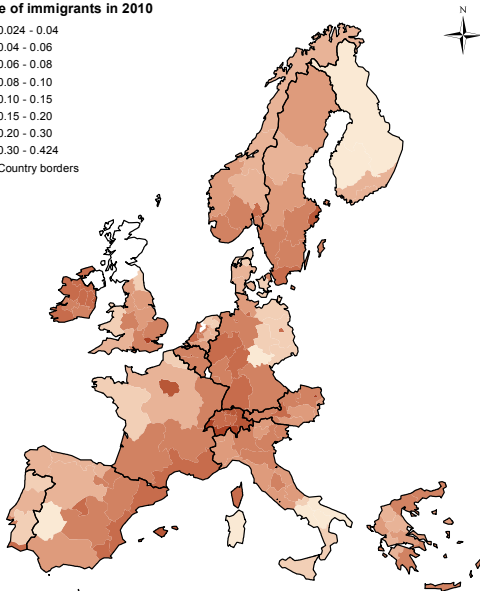


Figure: Variation in the share of immigrants between 1990 and 2010

Change in the share of immigrants btwn 1990 and 2010

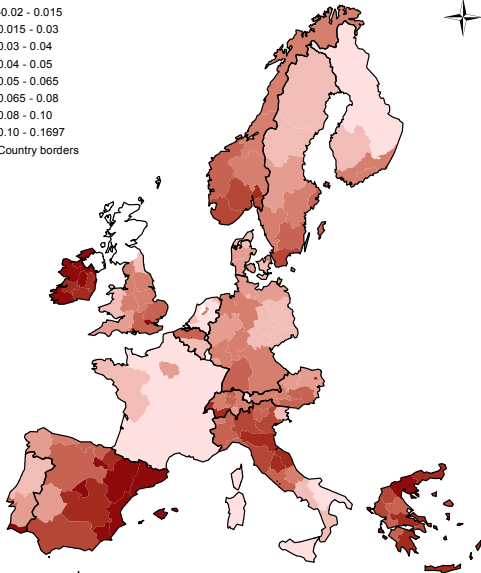
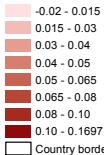
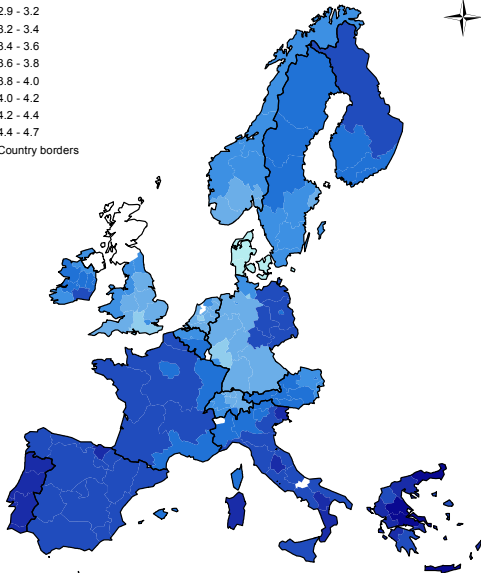
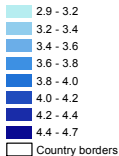


Figure: Average support for reduction in income differences (2002-2016)

Average support for redistribution [1,5]



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## Empirical specification

We estimate the following linear model for native individual  $i$ , living in the region  $r$  of country  $c$  at time  $t$ :

$$y_{irct} = Mig_{rd(t)}\beta + X_{it}\alpha + Z_{rt}\lambda + \delta_{ct} + \epsilon_{irct} \quad (1)$$

- $y_{irct}$  is a standardised measure of support for redistribution
- $Mig_{rd(t)}$  is the log share of foreign-born in the population of region  $r$  at the beginning of the decade  $d(t)$ .
- $\delta_{ct}$  is set of country-year fixed effect
- $Z_{nt}$  is a vector of regional level control: native population (log), GDP per capita (log), unemployment rate, and the share of tertiary educated among the native population
- $X_{it}$  are individual socio-demographic characteristics
- Standard errors are clustered at the region-by-year

# Endogeneity concerns

- The country-year fixed effect holds constant welfare policies at the national level.
- However, immigrants are not randomly distributed across regions of the same country

We test the sensitivity of results to:

- Excluding Federal countries where regions have more autonomy to set welfare policies
- Excluding regions in which a capital is located
- Including various set of controls : employment status, parents' education, household income, occupation (last or current), feeling about own standard of living, and individual ideology (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.)

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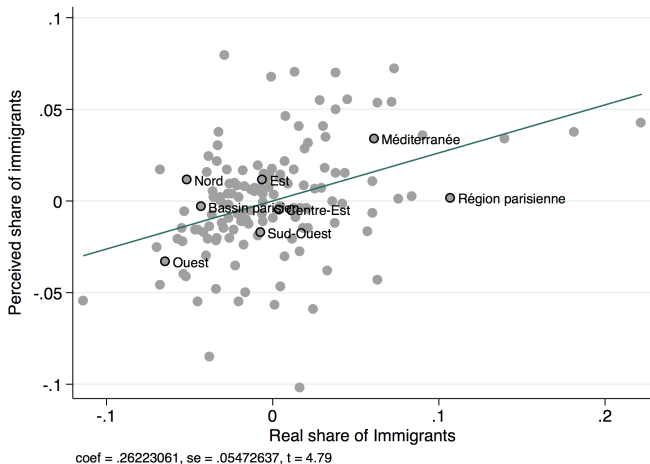
# Biases in natives' perceptions of share of immigrants

Table: Perceived share of immigrants in the country and real regional share

Dep var :	<b>“Of every 100 people in country how many are foreign-born?” (2002 and 2014 rounds)</b>				
Share of immigrants	0.148*** (0.025)	0.209*** (0.039)	0.183*** (0.037)	0.196*** (0.032)	0.202*** (0.031)
N	44,570	44,570	44,296	33,991	30,950
Country-year FE	X	X	X	X	X
Regional control		X	X	X	X
Basic Individual-controls			X	X	X
Income controls				X	X
Ideology controls					X

# Biases in natives' perceptions of share of immigrants

Figure: Perceived national share of immigrants and real regional share of immigrants (purged of country fixed effects)



## Results

Table: Immigration and attitudes towards redistribution.

Dependent variable:	Index of welfare attitudes (rounds 2008 and 2016)				
<b>Panel A: Average effect</b>					
Share of immigrants (log)	0.045 (0.028)	-0.059 (0.036)	-0.071** (0.036)	-0.062 (0.038)	-0.045 (0.033)
R2	0.11	0.11	0.13	0.14	0.29
N	43,172	43,172	42,916	32,160	29,878
<b>Panel B: Effect depending on respondents' political view</b>					
Leftist respondent * share of immigrants (log)	0.143*** (0.029)	0.063* (0.038)	0.055 (0.038)	0.078* (0.041)	0.065 (0.040)
Center-rightist respondent * share. immigrants (log)	-0.050** (0.025)	-0.126*** (0.033)	-0.130*** (0.032)	-0.123*** (0.034)	-0.110*** (0.033)
R2	0.20	0.20	0.22	0.23	0.30
N	39,914	39,914	39,703	30,563	29,878
Country-year FE	X	X	X	X	X
Regional control		X	X	X	X
Basic Individual-controls			X	X	X
Income controls				X	X
Ideology controls					X

## Results

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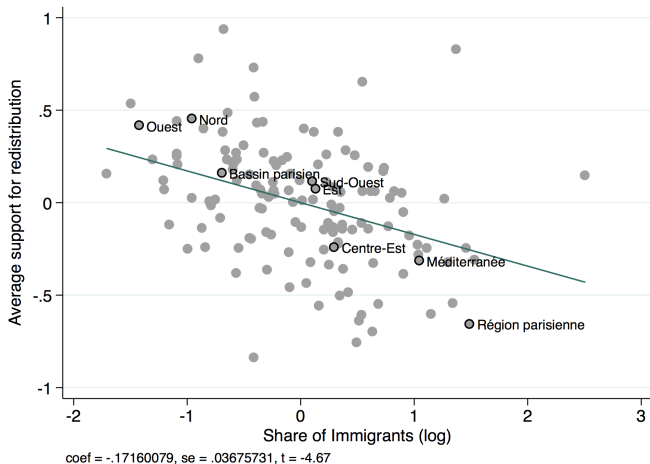
Dependent variable:

Support for reduction in income differences

<b>Panel A: Average effect</b>					
Share of immigrants (log)	-0.081***	-0.076***	-0.072***	-0.079***	-0.051***
	(0.016)	(0.024)	(0.024)	(0.023)	(0.019)
R2	0.10	0.10	0.13	0.15	0.22
N	194,087	194,087	192,845	141,467	128,218
<b>Panel B: Effect depending on respondents' political view</b>					
Leftist respondent * share of immigrants (log)	0.008	0.033	0.042*	0.040*	0.038*
	(0.012)	(0.024)	(0.024)	(0.024)	(0.021)
Center-rightist respondent * share of immigrants (log)	-0.149***	-0.123***	-0.113***	-0.115***	-0.099***
	(0.018)	(0.025)	(0.025)	(0.024)	(0.021)
R2	0.13	0.13	0.16	0.19	0.22
N	176,111	176,111	175,084	132,988	128,218
Country-year FE	X	X	X	X	X
Regional control		X	X	X	X
Basic Individual-controls			X	X	X
Income controls				X	X
Ideology controls					X

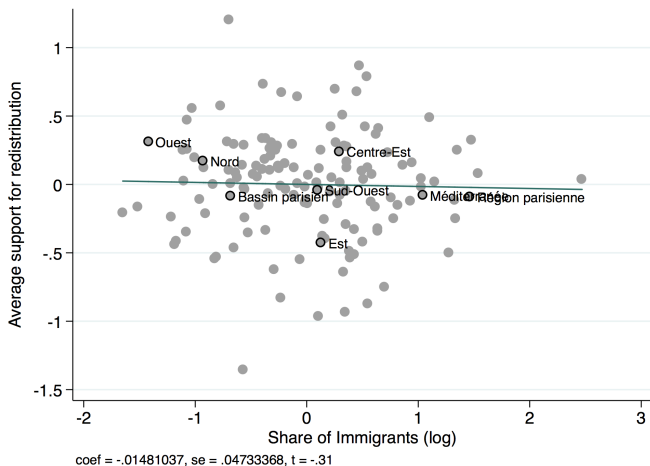
# Center-Rightist natives' attitudes

Figure: Average attitudes and share of immigrants at the regional level in Europe (purged of country fixed effects)



# Leftist natives' attitudes

Figure: Average attitudes and share of immigrants at the regional level in Europe (purged of country fixed effects)



## Interpreting the size of the effects

- This estimates suggests that a one standard-deviation increase in the share of immigrants (0.61) reduces natives' support for redistribution by about 6% of the standard-deviation in attitudes (index).
- The anti-redistribution effect of a one-quintile increase in the immigrants' share (i.e. 0.42) is 55% as large as a one-quintile increase in household income
- A one standard-deviation increase in share of immigrants is associated with a decline by 18% of the cross-regional standard-deviation in attitudes pro-redistribution.



## Attitudes : components of the index

		<u>I Favor small diff. standard of living for fair society</u>					
Dep var:							
far-left respondent * share. immigrants (log)	0.036 (0.031)	0.016 (0.037)	0.051 (0.031)	0.019 (0.037)	0.031 (0.040)	0.015 (0.039)	
center-right respondent * share. immigrants (log)	-0.127*** (0.019)	-0.143*** (0.031)	-0.107*** (0.020)	-0.136*** (0.031)	-0.130*** (0.032)	-0.129*** (0.030)	
Dep var:		<u>I Standard living for the old, gov responsibility</u>					
far-left respondent * share. immigrants (log)	0.005 (0.027)	-0.015 (0.041)	0.010 (0.027)	-0.018 (0.041)	0.019 (0.038)	-0.001 (0.034)	
center-right respondent * share. immigrants (log)	-0.067*** (0.022)	-0.084** (0.040)	-0.059** (0.023)	-0.085** (0.041)	-0.064* (0.036)	-0.073** (0.033)	
Dep var:		<u>Standard living for the unemployed, gov responsibility</u>					
far-left respondent * share. immigrants (log)	0.063** (0.029)	-0.021 (0.040)	0.040 (0.030)	-0.033 (0.040)	-0.011 (0.039)	-0.023 (0.036)	
center-right respondent * share. immigrants (log)	-0.079*** (0.026)	-0.159*** (0.039)	-0.093*** (0.028)	-0.164*** (0.038)	-0.159*** (0.036)	-0.155*** (0.035)	
Dep var:		<u>: Child care services for working parents, gov responsibility</u>					
far-left respondent * share. immigrants (log)	0.016 (0.026)	0.003 (0.040)	0.004 (0.028)	-0.007 (0.040)	0.031 (0.039)	0.019 (0.037)	
center-right respondent * share. immigrants (log)	-0.045** (0.022)	-0.057 (0.039)	-0.055** (0.022)	-0.066* (0.039)	-0.072* (0.038)	-0.070* (0.037)	
Dep var:		<u>Against soc.benefit too great strain on economy</u>					
far-left respondent * share. immigrants (log)	0.124*** (0.029)	0.008 (0.041)	0.094*** (0.030)	0.003 (0.041)	0.010 (0.042)	0.004 (0.042)	
center-right respondent * share. immigrants (log)	0.047* (0.026)	-0.065* (0.035)	0.020 (0.027)	-0.070** (0.035)	-0.072* (0.038)	-0.057 (0.038)	
Dep var:		<u>Against soc.benefit cost too much for business</u>					
far-left respondent * share. immigrants (log)	0.152*** (0.028)	0.067* (0.038)	0.095*** (0.027)	0.053 (0.037)	0.028 (0.041)	0.028 (0.041)	
center-right respondent * share. immigrants (log)	0.085*** (0.022)	0.002 (0.032)	0.030 (0.022)	-0.013 (0.032)	-0.025 (0.032)	-0.008 (0.031)	
Dep var:		<u>Against soc.benefit may people lazy</u>					
far-left respondent * share. immigrants (log)	0.129*** (0.042)	-0.024 (0.055)	0.071 (0.045)	-0.035 (0.055)	-0.042 (0.054)	-0.035 (0.056)	
center-right respondent * share. immigrants (log)	0.038 (0.039)	-0.110** (0.048)	-0.016 (0.041)	-0.120** (0.049)	-0.143*** (0.047)	-0.123** (0.048)	
country-year FE	X	X	X	X	X	X	
regional control		X		X	X	X	
indiv-controls			X	X	X	X	
ind cont income				X	X	X	
indiv cont inc ideology					X	X	

## Robustness - I

Table: Robustness: excluding federal countries

Dep var:	Index of all welfare attitudes (rounds 2008 and 2016)					
Leftist respondent * share. immigrants (log)	0.141*** (0.040)	0.023 (0.053)	0.119*** (0.039)	0.019 (0.051)	0.041 (0.047)	0.025 (0.042)
Center-rightist respondent * share. immigrants (log)	-0.052* (0.030)	-0.163*** (0.043)	-0.071** (0.029)	-0.165*** (0.042)	-0.161*** (0.039)	-0.150*** (0.036)
N	22,700	22,700	22,605	22,605	17,635	17,032
Dep var:	Support for reduction in income differences					
Leftist respondent * share. immigrants (log)	-0.007 (0.014)	0.003 (0.026)	0.037** (0.014)	0.008 (0.026)	0.006 (0.027)	0.012 (0.024)
Center-rightist respondent * share. immigrants (log)	-0.181*** (0.020)	-0.168*** (0.026)	-0.135*** (0.017)	-0.160*** (0.025)	-0.158*** (0.026)	-0.135*** (0.024)
N	114,320	114,320	113,657	113,657	89,372	84,986
Country-year FE	X	X	X	X	X	X
Regional control		X		X	X	X
Basic Indiv-controls			X	X	X	X
Income controls					X	X
Ideology controls						X

Federal countries are Austria, Germany, Belgium, Spain and Switzerland.

## Robustness -II

Table: Robustness: excluding federal countries and capital regions

Dep var:	Index of all welfare attitudes (rounds 2008 and 2016)					
Leftist respondent * share. immigrants (log)	0.101** (0.048)	0.039 (0.057)	0.031 (0.056)	0.019 (0.051)	0.024 (0.052)	
Center-rightist respondent * share. immigrants (log)	-0.088*** (0.025)	-0.149*** (0.041)	-0.157*** (0.040)	-0.164*** (0.036)	-0.133*** (0.037)	
N	22,178	22,178	22,064	17,479	16,935	
Dep var:	Support for reduction in income differences					
Leftist respondent * share. immigrants (log)	-0.037** (0.015)	0.013 (0.027)	0.021 (0.027)	0.013 (0.026)	0.025 (0.024)	
Center-rightist respondent* share. immigrants (log)	-0.216*** (0.017)	-0.163*** (0.026)	-0.156*** (0.025)	-0.154*** (0.024)	-0.124*** (0.022)	
N	98,755	98,755	98,145	77,945	74,236	
Country-year FE	X	X	X	X	X	X
Regional control		X		X	X	X
Basic Indiv-controls			X	X	X	X
Income controls					X	X
Ideology controls						X

## Placebos

Dep var:	Opinions about environmental policies				
Leftist respondent * share. immigrants (log)	-0.034** (0.016)	-0.038 (0.032)	-0.040 (0.031)	-0.043 (0.029)	-0.023 (0.021)
center-right respondent * share. immigrants (log)	0.021 (0.014)	0.018 (0.029)	0.016 (0.028)	0.006 (0.026)	0.006 (0.018)
N	171,724	171,724	170,726	129,517	128,774
Dep var:	Opinions about LGBT rights				
Leftist respondent * share. immigrants (log)	-0.126*** (0.019)	-0.030 (0.031)	-0.014 (0.028)	-0.002 (0.026)	0.008 (0.025)
Center-right respondent * share. immigrants (log)	-0.147*** (0.022)	-0.049 (0.032)	-0.031 (0.030)	-0.029 (0.028)	-0.035 (0.028)
R2	0.11	0.11	0.18	0.18	0.20
N	175,699	175,699	174,672	132,724	127,976
Dep var:	Religiosity				
Leftist respondent * share. immigrants (log)	-0.131*** (0.023)	-0.026 (0.023)	-0.024 (0.023)	-0.016 (0.024)	-0.012 (0.024)
Center-right respondent * share. immigrants (log)	-0.111*** (0.018)	-0.008 (0.020)	-0.003 (0.020)	0.001 (0.022)	0.001 (0.022)
N	177,346	177,346	176,282	133,537	128,718
Country-year FE	X	X	X	X	X
Regional control		X	X	X	X
Basic Individual-controls			X	X	X
Income controls				X	X
Ideology controls					X

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- 5 Heterogeneity**

# Heterogeneity across destination countries

Table: Attitudes and immigration across more or less generous Welfare States

Dep var:	Support for reduction in income differences				
log share. foreign	-0.020 (0.020)	-0.024 (0.027)	-0.027 (0.028)	-0.034 (0.026)	-0.020 (0.022)
log share. foreign * High Welfare State	-0.126*** (0.026)	-0.123*** (0.024)	-0.107*** (0.023)	-0.101*** (0.023)	-0.073*** (0.021)
N	187,646	187,646	186,515	137,017	124,216
Dep var:	Index of all welfare attitudes (rounds 2008 and 2016)				
log share. foreign	0.135*** (0.046)	0.010 (0.049)	0.003 (0.050)	-0.012 (0.052)	-0.026 (0.045)
log share. foreign * High Welfare State	-0.176*** (0.057)	-0.194*** (0.049)	-0.212*** (0.050)	-0.175*** (0.053)	-0.125*** (0.046)
N	37,746	37,746	37,558	28,219	26,251
Country-year FE	X	X	X	X	X
Regional control		X	X	X	X
Basic Indiv-controls			X	X	X
Income controls				X	X
Ideology controls					X
High Welfare State is a binary taking one if the share of public expenditures in GDP is above the sample median					

# Heterogeneity across destination countries

Table: Attitudes and immigration across countries w/o long-standing immigration history

Dep var:	Support for reduction in income differences				
Share of immigrants (log)	-0.073*** (0.021)	-0.048* (0.026)	-0.043* (0.026)	-0.049** (0.025)	-0.021 (0.021)
Share of immigrants (log) * High-Immigration country	-0.019 (0.032)	-0.063** (0.026)	-0.064*** (0.025)	-0.063*** (0.024)	-0.062*** (0.021)
N	194,087	194,087	192,845	141,467	128,218
Dep var:	Index of all welfare attitudes (rounds 2008 and 2016)				
Share of immigrants (log)	0.101*** (0.038)	0.020 (0.042)	0.013 (0.043)	0.010 (0.044)	0.017 (0.037)
Share of immigrants (log) * High-Immigration country	-0.124** (0.051)	-0.174*** (0.046)	-0.186*** (0.048)	-0.155*** (0.050)	-0.134*** (0.043)
N	43,172	43,172	42,916	32,160	29,878
Country-year FE	X	X	X	X	X
Regional control		X	X	X	X
Basic Indiv-controls			X	X	X
Income controls				X	X
Ideology controls					X

High-Immigration country is a binary taking one if the 1990 population share of the country of respondent's residence is higher than the sample median

# Heterogeneity across individual respondents

- The differential effect of immigration along the left-right political spectrum remains unchanged when we allow immigration to have differential effects across the **educational level and household income** of respondents.
- The heterogeneity of attitudinal response across educational and income level is of much lower magnitude relative to the heterogeneity across political affiliation.



# Heterogeneity across individual respondents

Table: Heterogeneous effects among **center-rightist** respondents

Dep var:	Index of all welfare attitudes				
	(1)	(2)	(3)	(4)	(5)
Share immigrants (log)	-0.074 (0.047)	-0.078** (0.036)	-0.076** (0.036)	-0.033 (0.037)	-0.032 (0.042)
education respondent: secondary *share. immigrants (log)	-0.007 (0.044)		-0.004 (0.008)		
education respondent: tertiary * share. immigrants (log)			0.023 (0.011)	-0.005	
household income in 4th quintile * share. immigrants (log)		0.026 (0.041)	0.027 (0.041)		
household income in 5th quintile * share. immigrants (log)		-0.013 (0.054)	-0.011 (0.054)		
Think immigrants make the country a worse place to live* share immigrants (log)				-0.081** (0.034)	
Think migrants should have no rights to welfare* share immigrants (log)					-0.082* (0.044)
N	19,634	19,634	19,634	19,498	19,303

**Note:** Each regression include country-year fixed effects, regional controls, basic individual controls, income controls and ideology controls. Each variable that 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.

# Heterogeneity across individual respondents

Table: Heterogeneous effects among **center-rightist** respondents

Dep var:	Support for reduction in income differences				
	(1)	(2)	(3)	(4)	(5)
Share of immigrants (log)	-0.016 (0.024)	-0.048** (0.021)	-0.054** (0.021)	-0.072*** (0.021)	-0.020 (0.037)
education respondent: secondary *share. immigrants (log)	-0.062*** (0.022)		-0.005 (0.005)		
education respondent: tertiary * share. immigrants (log)	-0.093*** (0.022)		-0.036* (0.018)		
household income in 4th quantile * share. immigrants (log)		-0.053*** (0.020)	-0.045** (0.019)		
household income in 5th quantile * share. immigrants (log)		-0.066** (0.030)	-0.055* (0.029)		
Think immigrants make the country a worse place to live* share immigrants (log)				-0.004 (0.019)	
Think migrants should have no rights to welfare* share immigrants (log)					-0.039 (0.037)
N	85,648	85,648	85,648	84,708	20,308

**Note:** Each regression include country-year fixed effects, regional controls, basic individual controls, income controls and ideology controls. Each variable that 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.

# Heterogeneity of immigrants' origin countries

Dep var:

Index of welfare measures

<b>Panel A : Average effect</b>					
	(1)	(2)	(3)	(4)	(5)
Share of EU15 immigrants (log)	-0.031 (0.035)	-0.036 (0.033)	-0.036 (0.034)	-0.026 (0.031)	-0.038 (0.028)
Share of non-EU15 immigrants (log)	0.050* (0.029)	-0.042 (0.039)	-0.053 (0.039)	-0.054 (0.039)	-0.017 (0.035)
N	43,172	43,172	42,916	32,160	29,878
Test equality coef. (p-value)	.147	.919	.7881	.6318	.6882
<b>Panel B : Effect depending on respondents' political view</b>					
	(1)	(2)	(3)	(4)	(5)
Center-rightist respondent * Share of EU15 immigrants (log)	-0.044 (0.035)	-0.045 (0.035)	-0.041 (0.036)	-0.036 (0.034)	-0.044 (0.032)
Center-rightist respondent * Share of non-EU15 immigrants (log)	-0.025 (0.026)	-0.092** (0.037)	-0.099*** (0.037)	-0.098*** (0.037)	-0.073** (0.036)
Leftist respondent * Share of EU15 immigrants (log)	-0.035 (0.038)	-0.029 (0.037)	-0.031 (0.037)	-0.027 (0.039)	-0.041 (0.037)
Leftist respondent * Share of non-EU15 immigrants (log)	0.142*** (0.028)	0.070* (0.039)	0.063 (0.039)	0.081** (0.041)	0.087** (0.041)
N	39,914	39,914	39,703	30,563	29,878
Test equality coef. among rightist (p-value)	.7268	.4563	.3687	.3073	.6119
Country-year FE	X	X	X	X	X
Regional control		X	X	X	X
Basic Individual-controls			X	X	X
Income controls				X	X
Ideology controls				X	X

# Heterogeneity of immigrants' origin countries

Dep var:

Support for reduction in income differences

<b>Panel A : Average effect</b>					
	(1)	(2)	(3)	(4)	(5)
Share of EU15 immigrants (log)	-0.006 (0.020)	-0.023 (0.016)	-0.018 (0.015)	-0.029* (0.016)	-0.032** (0.014)
Share of non-EU15 immigrants (log)	-0.075*** (0.016)	-0.069*** (0.021)	-0.068*** (0.020)	-0.064*** (0.020)	-0.028 (0.017)
N	194,087	194,087	192,845	141,467	128,218
Test equality coef. (p-value)	.0312	.1201	.0675	.2307	.881
<b>Panel B : Effect depending on respondents' political view</b>					
	(1)	(2)	(3)	(4)	(5)
Center-rightist respondent * Share of EU15 immigrants (log)	-0.011 (0.021)	-0.030 (0.018)	-0.024 (0.017)	-0.039** (0.018)	-0.040** (0.017)
Center-rightist respondent * Share of non-EU15 immigrants (log)	-0.133*** (0.017)	-0.105*** (0.021)	-0.098*** (0.019)	-0.087*** (0.019)	-0.067*** (0.018)
Leftist respondent * Share of EU15 immigrants (log)	-0.001 (0.019)	-0.021 (0.017)	-0.014 (0.016)	-0.016 (0.018)	-0.025 (0.016)
Leftist respondent * Share of non-EU15 immigrants (log)	0.003 (0.012)	0.029 (0.019)	0.034* (0.019)	0.038** (0.019)	0.047*** (0.018)
N	176,111	176,111	175,084	132,988	128,218
Test equality coef. among rightist (p-value)	.0003	.0162	.0092	.103	.3407
Country-year FE	X	X	X	X	X
Regional control		X	X	X	X
Basic Individual-controls			X	X	X
Income controls				X	X
Ideology controls					X

# Heterogeneity of immigrants' time since arrival

Table: Effects of past stocks and recent inflows of immigrants.

Dep. var:	Index of welfare measures				
	(1)	(2)	(3)	(4)	(5)
Center-rightist respondent * 1990 share of immigrants (log)	-0.051** (0.026)	-0.132*** (0.035)	-0.136*** (0.034)	-0.131*** (0.035)	-0.114*** (0.034)
Center-rightist respondent * 2010-1990 immigrant inflow	-0.128*** (0.045)	-0.183*** (0.050)	-0.186*** (0.051)	-0.159*** (0.053)	-0.123** (0.054)
Leftist respondent * 1990 share of immigrants (log)	0.149*** (0.030)	0.063 (0.039)	0.055 (0.039)	0.080* (0.041)	0.066* (0.039)
Leftist respondent * 2010-1990 immigrant inflow	0.184*** (0.062)	0.122* (0.064)	0.120* (0.066)	0.143** (0.071)	0.127* (0.074)
N	39,914	39,914	39,703	30,563	29,878
Country-year FE	X	X	X	X	X
Regional control		X	X	X	X
Basic Individual-controls			X	X	X
Income controls				X	X
Ideology controls					X

**Note:** The variable *2010-1990 immigrant inflow* is the difference in the log share of immigrants in 2010 and the log share of immigrants in 1990. The sample includes all of rounds of the ESS after 2008.

Standard errors are clustered at the NUTS- year level. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

# Heterogeneity of immigrants' time since arrival

Table: Effects of past stocks and recent inflows of immigrants.

Dep. var:	Support for reduction in income differences				
	(1)	(2)	(3)	(4)	(5)
Center-rightist respondent * 1990 share of immigrants (log)	-0.146*** (0.020)	-0.130*** (0.029)	-0.119*** (0.029)	-0.122*** (0.031)	-0.098*** (0.026)
Center-rightist respondent * 2010-1990 immigrant inflow	-0.123*** (0.033)	-0.094*** (0.032)	-0.090*** (0.030)	-0.080** (0.032)	-0.044 (0.029)
Leftist respondent * 1990 share of immigrants (log)	0.027* (0.016)	0.041 (0.029)	0.049* (0.029)	0.048 (0.031)	0.050* (0.027)
Leftist respondent * 2010-1990 immigrant inflow	0.081*** (0.025)	0.107*** (0.026)	0.115*** (0.026)	0.126*** (0.028)	0.124*** (0.029)
N	107,148	107,148	106,569	81,344	79,925
Country-year FE	X	X	X	X	X
Regional control		X	X	X	X
Basic Individual-controls			X	X	X
Income controls				X	X
Ideology controls					X

**Note:** The variable *2010-1990 immigrant inflow* is the difference in the log share of immigrants in 2010 and the log share of immigrants in 1990. The sample includes all of rounds of the ESS after 2008.

Standard errors are clustered at the NUTS- year level. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

## Segregation within region

- We use new data at the census tract level to examine the spatial segregation of immigrants.
- Following Alesina and Zhuravskaya (2011), we use the indice of segregation:

$$\frac{1}{M-1} \sum_{m=1}^M \sum_{j=1}^J \frac{t_j}{T} \frac{(p_{jm} - p_m)^2}{p_m}$$

with  $p_{jm}$ , the share of group  $m$  in the grid-cell  $j$

$p_m$  the share of group  $m$  in the entire region

$\frac{t_j}{T}$  the share of grid-cell  $j$  in the entire region's population

# Segregation within region

Dep. var:

**Support for reduction in income differences**
**Panel A: Average effect**

Share of immigrants (log)	-0.111*** (0.029)	-0.104*** (0.040)	-0.107*** (0.040)	-0.096** (0.045)	-0.059 (0.040)
Segregation index (log)	0.055* (0.031)	0.071* (0.043)	0.066 (0.041)	0.052 (0.044)	0.064 (0.039)
R2	0.06	0.06	0.08	0.12	0.18
N	54,084	54,084	53,589	38,038	35,152

**Panel B: Effect depending on respondents' political view**

Center-rightist * share. immigrants (log)	-0.167*** (0.033)	-0.140*** (0.043)	-0.144*** (0.042)	-0.136*** (0.048)	-0.111*** (0.041)
Center-rightist * segregation index (log)	0.079** (0.037)	0.094** (0.043)	0.102** (0.040)	0.097** (0.043)	0.085** (0.039)
Leftitst * share. immigrants (log)	-0.027 (0.027)	-0.003 (0.041)	0.003 (0.042)	0.014 (0.047)	0.023 (0.040)
Leftitst * segregation index (log)	0.014 (0.034)	0.035 (0.048)	0.026 (0.046)	0.018 (0.051)	0.018 (0.048)
R2	0.09	0.09	0.12	0.16	0.18
N	48,843	48,843	48,465	35,555	35,152
Country-year FE	X	X	X	X	X
Regional control		X	X	X	X
Basic Individual-controls			X	X	X
Income controls				X	X
Ideology controls				X	X



# Segregation within region

Dep. var:

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**Index of welfare measures**


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**Panel A: Average effect**

Share of immigrants (log)	0.011 (0.039)	-0.051 (0.050)	-0.053 (0.050)	-0.028 (0.057)	-0.013 (0.046)
Segregation index (log)	-0.093 (0.066)	-0.102 (0.065)	-0.109* (0.064)	-0.162** (0.069)	-0.153** (0.061)
R2	0.10	0.10	0.12	0.15	0.29
N	19,447	19,447	19,309	13,941	13,008

**Panel B: Effect depending on respondents' political view**

Center-rightist * share. immigrants (log)	-0.066** (0.032)	-0.122*** (0.045)	-0.120*** (0.044)	-0.090* (0.052)	-0.075 (0.048)
Center-rightist * Segregation index (log)	-0.034 (0.061)	-0.039 (0.064)	-0.042 (0.063)	-0.081 (0.067)	-0.093 (0.065)
Letfist * Share of immigrants (log)	0.125*** (0.042)	0.071 (0.049)	0.067 (0.049)	0.096* (0.055)	0.086* (0.052)
Letfist * Segregation index (log)	-0.218*** (0.075)	-0.226*** (0.068)	-0.231*** (0.068)	-0.286*** (0.071)	-0.258*** (0.069)
R2	0.19	0.19	0.21	0.24	0.30
N	17,688	17,688	17,587	13,092	13,008
Country-year FE	X	X	X	X	X
Regional control		X	X	X	X
Basic Individual-controls			X	X	X
Income controls				X	X
Ideology controls				X	X

# Next steps

- Pro-immigration views seem negatively correlated with the regional share of immigrants.
  - How are attitudes towards immigration and redistribution jointly determined ?
  - Look at the two dimensional Egalitarians-Inegalitarians and Nativists-Internationalists cleavages (Piketty, 2018)
- As a robustness check, Shift-Share IV to instrument the inflow of immigrants, holding constant the initial stock.

# Conclusion

- European countries' populations are becoming more heterogeneous due to immigration.
- We show that the share of immigrants is negatively correlated with natives' support for redistribution amongst centre-rightwing voters.
- These are becoming less favorable to redistribution presumably because they see the benefits of the Welfare policies being spread towards poorer non-natives, especially if the latter are from non-European origin.