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# Immigration and Preferences for Redistribution in Latin America

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#### Abstract

This paper analyzes the effect of immigration on preferences for redistribution in Latin America using harmonized censuses (IPUMS International) matched with LAPOP surveys for the 2008-2016 period. Our results suggest a negative relationship between the share of immigrants at the provincial level and the support for redistribution policies. These results are robust to different ways of measuring preferences for redistribution. This anti-redistribution effect is larger among those who consider themselves ideologically right-wing and among high-skilled and high-income individuals. Moreover, when considering immigrants' characteristics, we find that the anti-redistribution effect is fully explained by low-skilled immigration.

JEL Classification: D63, O15, N36.

Keywords: Migration, Inequality, Redistribution, Latin America

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## 1. Introduction

In recent years there has been an important breakpoint in Latin America concerning two important aspects: inequality and migration. On the one hand, according to Martínez Pizarro, Cano and Soffia (2014) there has been an important change in the composition of immigrants living in Latin American countries in the last decades. For instance, the share of immigrants coming from other countries in the region significantly increased from 24% in the 1970s to almost 63% in the 2010s. Moreover, this increase has not been homogeneous across countries, being Argentina, Bolivia and Chile the countries where the share increased the most (approx. 80% since early 2000s). In addition, in recent years, there has been new massive flows of migrants driven by economic and social crises in their countries of origin that has significantly increased the flow of migrants. The most well-known case is the Venezuelan exodus of migrants to different countries in the region.

On the other hand, although inequality significantly decreased over the 2000s, in the first half of the 2010s the rate of decline has slowed significantly (Gasparini et al., 2018). These two recent trends may represent a complex dilemma for Latin-American policy-makers: redistributive policies are crucial for alleviating inequality; however, increasing migration flows can affect support for redistribution and, through this channel, reinforce increases in inequality.

In this paper we analyze the effects of immigration on the support for redistributive policies. To this aim, we build a novel data set of immigration shares at the province/state/department<sup>1</sup> level from harmonized census data (IPUMS International) for most Latin American countries, matched to the biannual 2008-2016 LAPOP surveys with information on individual perceptions and attitudes toward redistribution. We are able to analyze 13 countries and more than 200 provinces.

Our results show a negative relationship between the province share of immigrants and preferences for redistribution of the the residence population. According to our estimates, an increase in the share of immigrants of 1% reduces the preferences for redistribution by about 0.03-0.07 standard deviations. These results are robust to different ways of measuring preferences for redistribution.

Detailed demographic and socio-economic information in census and LAPOP data allows us to look for heterogeneous responses to immigration shares both from the respondent and the immigration sides. Specifically, we find that the anti-redistribution effect of immigration is larger for high-skilled and high-income respondents and those who consider themselves ideologically right-wing. Furthermore, when considering immigrants' characteristics, we find that the effect is fully explained by low-skilled immigration, whereas high-skilled immigration

<sup>&</sup>lt;sup>1</sup>Hereafter, we refer to states, departments or provinces of the different countries –depending on countries' political division– simply as provinces.

have no effect.

There is a growing literature for United States and Europe showing that immigration reduces support for redistributive policies (Alesina et al., 2019; Dahlberg et al., 2012; Razin et al., 2002; Tabellini, 2018). Our paper is closely related to this literature. Indeed, given recent Latin America migration flows, we build on Alessina et al. (2019) and seek to answer the question about immigration and support for redistribution in the region. Contrary to this existing literature –which has focused on immigration coming from developing to developed countries–, we analyze the impact on preferences for redistribution when immigration comes mainly from countries from the same region, and then with similar cultural backgrounds. Contrary to what may be expected, there is still a large negative effect on preferences for redistribution in the Latin American case. To the best of our knowledge, there is no evidence on this relationship in developing countries. Finally, we also contribute by building a novel database of immigration shares at the province level for most Latin American countries over time.

Another strand of the literature has showed that recent immigration may have also explained the emergence of far-right political candidates (Barone et al., 2016; Becker and Fetzer, 2016; Brunner and Kuhn, 2018; Edo et al, 2019; Dinas et al., 2019; Dustmann et al., 2019; Facchini et al., 2016; Halla et al., 2017; Harmon, 2018; Otto and Steinhardt, 2014). In the case of Colombia, Rozo and Vargas (2019) show that the international migration flows shift votes to right-wing ideologies. Our results shed some light on the mechanism underlying the electoral impacts found in the literature: an increase in low-skilled immigration reduces preferences for redistributive policies among voters and, through this channel, may affect increase chances of extreme right-wing candidates winning elections.

The rest of the paper is organized as follows: Section 2 presents information related with the data used in this paper and how the different measures of preferences for redistribution and migration were constructed. Descriptives statistics are presented in section 3. The empirical strategy is presented in section 4. In Section 5, the aggregate results are presented as well as the estimates proposed of different heterogenous effects. Finally, section 6 concludes.

### 2. Data

Immigration data. We use census data from IPUMS International in order to build a novel database of the share of immigrants in the population at the province level for 13 Latin American countries. Most countries have one or two census since 2000 (See Table A1 in Appendix A for details on data sources). The definition of immigrant is related to the birthplace (i.e. being born in a foreign country). This dataset also has information about variables that allows us to analyze heterogeneous effects by type of immigration.

Attitudinal data. For analyzing support for redistribution policies we use Latin American Public Opinion Project (LAPOP) surveys between 2008 and 2016. The survey is available every two years and is representative at the national level. It contains socioeconomic and attitudinal information at the individual level for almost all the countries in the region (See Table A1 in Appendix A).

In order to measure preferences for redistribution we use different survey questions that capture the degree of agreement with the State intervention to reduce inequality, to provide employment, healthcare and improve the well-being of the society. The respondents answer on a scale of 1 to 7 where 1 indicates "Strongly disagree" and 7 "Strongly agree". For example, the most relevant question concerning support for redistribution policies is stated in the following form: "The (Country) government should implement firm policies to reduce income inequality between the rich and the poor. To what extent do you agree or disagree with this statement?". (See Table A2 in the Apppendix for detailed information on the survey's questions).

In addition to the attitudinal separate questions, we also compute an index of preferences for redistribution by implementing Principal Component Analysis (PCA) using the questions related with welfare, employment and inequality presented in Table A1 in Appendix A. We standarize both the index and the individual variables so as to be able to compare results.

Matching data. Finally, since LAPOP data contains precise information about respondents' residence (at municipal level), this individual level data will be merged with immigration shares calculated at the province level coming from census data. Specifically, each LAPOP country-year survey is matched with the immediately preceding available census. It is worth noticing that provinces analyzed are those surveyed by LAPOP since it does not cover all provinces in a country. The final sample consists of 13 countries and 226 provinces between 2008 and 2016. When we use the redistribution preference index, we have a sample of 37,865 individuals.

## 3. Descriptive Statistics

Table B1 presents some descriptive statistics of individuals in the sample. There are no large differences between countries regarding sex, age and years of education. Moreover, most respondents are employed and students are generally less than 10%. As regards political affiliation, most of respondents declare being in the center of the political spectrum. However, there are some difference between countries: for example, in Dominican Republic, Colombia and Paraguay there are more right-wing people than on the region's average whereas Uruguay is the country with the highest proportion of leftists. On the other hand, Table 1 shows that there is a great variation on the population share of immigrants across the analyzed countries. While in Argentina, Costa Rica and Dominican Republic there is a high share of immigrants, in Brazil, Colombia and Peru it is close to zero. In addition, an interesting fact is that these immigration shares are composed mainly of low-skilled population.

Additionally, it is worth noticing that the variability of the shares of immigrants is not homogeneous across countries. The largest variability occurs in Argentina, Costa Rica and Panama (standard deviation greater than two). Since these countries have also a high immigration share, it is reasonable to think that it is concentrated in some country provinces.

	Immi	grants	s (%)	Low-S Immig	killed rants	(%)
Country	Mean	$\mathbf{SD}$	$\mathbf{p50}$	Mean	$\mathbf{SD}$	$\mathbf{p50}$
Argentina	5.2	4.4	5.5	4.9	4.0	5.3
Bolivia	1.4	1.3	0.9	1.1	1.1	0.6
Brazil	0.3	0.3	0.3	0.3	0.2	0.2
Chile	1.3	0.8	1.1	1.1	0.7	1.0
Colombia	0.2	0.1	0.2	0.2	0.1	0.2
Costa Rica	8.8	2.2	9.6	7.7	1.9	8.4
Ecuador	1.1	0.6	0.9	0.8	0.5	0.7
Mexico	0.7	0.7	0.6	0.5	0.5	0.4
Panama	3.7	2.2	4.3	2.4	1.4	3.1
Paraguay	3.4	2.0	2.1	3.0	1.9	1.8
Peru	0.3	0.2	0.2	0.2	0.1	0.1
Dominican Republic	4.0	1.9	3.7	3.7	1.9	3.2
Uruguay	2.3	1.2	2.1	2.0	0.9	1.9
Total	2.3	2.8	1.0	2.0	2.5	0.9

 Table 1: Descriptive Statistics: Immigration in Latin America 2008-2016

Notes. Own elaboration based on IPUMS International data (last available census for each country; se Appendix A for data details). Low-skilled is defined as individuals without complete tertiary education.

Table 2 presents information concerning the different support for redistribution measures. As previously mentioned, these variables are related to preferences regarding government intervention in the provision of employment, health, reduction of inequality and improvement of society well-being. As can be seen, given that the scale for all questions ranges from 1 to 7, there are high levels of support for redistribution in the analyzed countries. This support seems to be greater in the case of Uruguay, Argentina and Paraguay while, on the other hand, Peru and Bolivia are the countries where, on average, there is less support for this type of redistributive policies.

Country	Welfare	Employment	Inequality	Health
Argentina	5.92	5.77	5.94	6.14
Bolivia	5.44	5.63	5.30	5.74
Brazil	5.44	5.46	5.81	6.07
Chile	5.87	5.88	6.03	6.26
Colombia	5.78	6.05	5.81	6.23
Costa Rica	5.79	5.82	5.74	6.07
Ecuador	5.55	5.71	5.48	6.17
Mexico	5.46	5.74	5.73	6.06
Panama	5.57	5.48	5.52	5.95
Paraguay	6.18	6.29	5.85	6.52
Peru	5.43	5.63	5.47	5.77
Dominican Republic	5.98	6.25	6.01	6.36
Uruguay	6.14	6.03	5.94	6.29

Table 2: Descriptive Statistics. Support for Redistribution: LAPOP 2008-2016

Notes. Own elaboration based on LAPOP data. The years 2008 to 2016 were considered every two years when the question was available.

A first approach to the relationship between immigrants and support for redistribution policies can be made by analyzing graphically the distribution of these variables across the region. Figure 1 shows that the share of immigrants is less than one percent in most provinces, although there is variation between and within countries. For example, Argentina, Costa Rica and Mexico are countries with an important share of immigrants but concentrated in certain provinces (provinces of Neuquén, Mendoza and Salta and those of northern Mexico, respectevely).



Figure 1: Share of immigrants in Latin America

Notes: Own elaboration based on data from IPUMS International (last available census for each country). See Table A1 in Annex for details.

On the other hand, Figure 2 exhibits the average support for redistribution policies across the region as measured with the inequality LAPOP question (See Data section for details). Comparing both figures, it seems to be a negative association between immigration and support for redistribution policies. For instance, northern and central Brazil, and southern Colombia are places where there are strong preferences for redistribution but low immigration shares, whereas the opposite occurs in northern Mexico, Ecuador and western Brazil.



Figure 2: Preferences for redistribution in Latin America

Notes. Own elaboration based on data from LAPOP 2014. The index was constructed based on a question in which the respondent had to answer how agree was about the State participating reducing inequality in the society.

However, in order to determine this relationship more precisely, it is important to estimate an econometric model to control for observable and unobservable factors that may be biasing this relation.

# 4. Empirical strategy

To analyze the impact of immigration on redistribution preferences we estimate the following regression model:

$$R_{iprct} = \alpha + \beta M_{prct} + X_{iprct}\theta + Z_{prct}\phi + \lambda_{crt} + \epsilon_{iprct}$$
(1)

where  $R_{iprct}$  is individual's *i* support for redistribution measured in different ways as described in the data section;  $M_{prct}$  is the immigration share in province *p* at region  $r^2$ ;  $X_{iprct}$ is a vector of individual controls (skill level, age, sex, income scale and whether the individual lives in a rural or urban area) and  $Z_{prct}$  a vector of controls at the province level (unemployment rate and total population);  $\lambda_{rct}$  are country-region-year fixed effects. Standard errors will be clustered at the country-region-year level to account for possible correlation between individual errors within this level.

This specification exploits variation of immigrants within a country-region-year. To put it simply, in a specific year-country-region, it compares support for redistribution policies between provinces with a relatively high share of immigrants to those with a relatively low share.

The migration literature has long discussed the potential endogeneity of migrants' location choice (See for instance, Altonji and Card, 1991; Sasin and Mckenzie, 2007; among others). In our case, the main concern is that unobserved factors may affect both immigration and preferences for redistribution. For example, if migrants flow to destinations with more generous welfare systems (the so-called "welfare magnets"), which may be the result of population's preferences, we can expect a positive bias (Borjas, 1999). It should be noticed that if the main endogeneity threat is the one commented above, our estimates of the effect of immigration on attitudes toward redistribution may be representing a "lower bound"<sup>3</sup>.

In the next section we present the aggregate estimates of equation (1). Additionally, we explore some heterogeneous effects regarding individual's characteristics and type of immigration.

# 5. Results

#### 5.1. Main results

Table 3 shows the estimates of equation (1) for the different preferences for redistribution measures. We find that, on avearage, there is a negative association between the province's share of immigrants and support for redistribution of the province residence population. These estimates are robust to province and individual controls. More specifically, in the case of the inequality variable, a 1% increase in the immigrants' share reduces support for redistribution policies by almost 0.03 standard deviations<sup>4</sup>. When analyzing the welfare index, the coefficient

<sup>&</sup>lt;sup>2</sup>Regions are standard grouping of provinces.

 $<sup>^{3}</sup>$ Edo et al (2019) presets evidence consistent with this positive bias: in a difference-in-difference approach and analyzing the relation between immigration and electoral outcomes, they find a higher impact when instrumenting the immigration variable.

 $<sup>^{4}</sup>$ Or a one standard deviation increase in the log share of immigrants (1.39) reduces support for redistribution by about 4.2% the standard deviation of preferences.

reaches a value of -0.044. In addition, we find a larger effect when considering individual's preferences for government interventions to provide employment or health in the economy.

#### Table 3: Main results

Dependent	Dependent variables. I reference for redistribution measures						
	Index	Welfare	Employment	Inequality	Health		
Immigrants share (logs)	$-0.0587^{**}$ (0.0235)	-0.0443** (0.0197)	$-0.0566^{***}$ (0.0211)	$-0.0308^{**}$ (0.0156)	$-0.0723^{**}$ (0.0324)		
Observations	$37,\!865$	38,238	$38,\!315$	$65,\!667$	$27,\!454$		
R2	0.099	0.071	0.090	0.093	0.084		
Country-region-year FE	Yes	Yes	Yes	Yes	Yes		
<b>Regional Controls</b>	Yes	Yes	Yes	Yes	Yes		
Individual Controls	Yes	Yes	Yes	Yes	Yes		
Ideology control	Yes	Yes	Yes	Yes	Yes		

#### Dependent variables: Preference for redistribution measures

Notes: Dependent variable standarized (z-score). Regional controls include population, share of rural population and unemployment rate; individual controls include skill-level, age, sex, age\*sex and income scales. Ideology control considers how the respondent place himself in a scale from 1 to 10 where 1 is left-wing and 10 is right-wing. Clustered standard errors at the the country-region-year level in parenthesis. Stars \*, \*\* and \*\*\* denote significance at 10, 5 and 1 per cent, respectively.

#### 5.2. Heterogeneous Effects

For a better understanding of the mechanisms behind this phenomenon, we explore heterogeneous effects considering the respondents' characteristics as well as the type of immigration.

In the first place, we analyze whether the anti-redistribution effect depends on the ideological position of the respondent. To do this, we use a self-declared ideological scale ranging from 1 to 10, where 1 is left and 10 is right. With this in mind, we divide the respondents into five groups: Left, Center-Left, Center, Center-Right, and Right. Table 4 shows that the negative effect of immigration on preferences for redistribution is driven entirely by non-leftists respondents: while there are not statistical differences between center, center-right and right attitudinal response to immigration, there is no a significant effect among those who considered themselves as being of a left political affiliation.

Table 4:	Heterogeneous	Effects:	Ideol	logical	Position
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	Index	Welfare	Employment	Inequality	Health
Immigrants Share	-0.0775***	-0.0596***	-0.0663***	-0.0428***	-0.0897**
	(0.0238)	(0.0200)	(0.0219)	(0.0160)	(0.0348)
Immigrants Share x Left	0.0444**	0.0210	0.0392**	0.0361**	0.0391*
	(0.0189)	(0.0171)	(0.0165)	(0.0173)	(0.0211)
Immigrants Share x Center-Left	0.0110	0.00593	-0.00349	0.0103	0.0147
	(0.0157)	(0.0147)	(0.0154)	(0.0123)	(0.0207)
Immigrants Share x Center	0.0317**	0.0331**	0.0181	0.0129	0.0284
	(0.0138)	(0.0137)	(0.0141)	(0.00917)	(0.0180)
Immigrants Share x Right	0.0206	0.0171	0.0101	0.0112	0.0166
	(0.0132)	(0.0121)	(0.0127)	(0.0107)	(0.0167)
Left	-0.0331	-0.0386	-0.0271	-0.00674	-0.0507
P-value	[0.227]	[0.126]	[0.250]	[0.745]	[0.112]
Center-Left	-0.0664	-0.0536	-0.0698	-0.0325	-0.0751
P-value	[0.0155]**	[0.0215]**	$[0.005]^{***}$	[0.061]*	[0.035]**
Center	-0.0458	-0.0264	-0.0482	-0.0299	-0.0613
P-value	[0.067]*	[0.213]	$[0.033]^{**}$	[0.070]*	[0.070]*
Center-Right	-0.0775	-0.0596	-0.0663	-0.0428	-0.0897
P-value	[0.001]***	[0.003]***	$[0.003]^{***}$	[0.008]***	[0.011]**
Right	-0.0568	-0.0424	-0.0562	-0.0316	-0.0731
P-value	[0.031]**	[0.054]*	[0.021]**	$[0.072]^*$	$[0.039]^{**}$
Observations	37 865	38 238	38 315	65 667	27 454
B2	0.099	0.071	0.090	0.093	0.085
Country-region-year FE	Yes	Yes	Yes	Yes	Yes
Regional Controls	Yes	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes	Yes

#### Dependent variables: Preference for redistribution variables

Notes: Dependent variable standarized (z-score). Regional controls include population, share of rural population and unemployment rate; individual controls include skill-level, age, sex, age\*sex and income scales. Ideology control considers how the respondent place himself in a scale from 1 to 10 where 1 is left-wing and 10 is right-wing. We classify respondents in: (i)Left (values 1 and 2); (ii) Center-Left (values 3 and 4); (iii) Center (value 5); (iv) Center-Right (values 6 and 7); and (v) Right (values 8 and 9). Clustered standard errors at the the country-region-year level in parenthesis. Stars \*, \*\* and \*\*\* denote significance at 10, 5 and 1 per cent, respectively.

An additional concern relates to the education of respondents and how this interacts with reaction to immigration. Table 5 shows that the effect seems to be slightly larger for the case of high-skilled respondents compared to those who are less qualified. This difference is statistically significant for all the variables considered. In addition, we find that the effect is statistically significant only in the case of high-skilled respondents when the variables related with inequality and welfare are considered.

Table 5:	Heterogeneous	Effects:	Skill	level
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	Index	Welfare	Employment	Inequality	Health
Immigrants Share	-0.0414*	-0.0316	-0.0435**	-0.0234	-0.0569*
-	(0.0228)	(0.0192)	(0.0206)	(0.0150)	(0.0307)
Immigrants Share x High-Skilled	-0.0355***	-0.0209**	-0.0366***	-0.0170**	-0.0411***
	(0.0112)	(0.0104)	(0.0109)	(0.00787)	(0.0128)
High Skilled	-0.0769	-0.0525	-0.0800	-0.0404	-0.0980
P-value	$[0.001]^{***}$	$[0.008]^{***}$	$[0.000]^{***}$	$[0.006]^{***}$	$[0.002]^{***}$
Observations	42 146	42 619	42 700	74 071	30 774
R2	0.096	0.070	0.083	0.091	0.083
Country-region-year FE	Yes	Yes	Yes	Yes	Yes
Regional Controls	Yes	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes	Yes
Ideology control	Yes	Yes	Yes	Yes	Yes

#### Dependent variables: Preference for redistribution variables

Notes: Dependent variable standarized (z-score). Regional controls include population, share of rural population and unemployment rate; individual controls include skill-level, age, sex, age\*sex and income scales. Ideology control considers how the respondent place himself in a scale from 1 to 10 where 1 is left-wing and 10 is right-wing. High-skilled corresponds to respondents with completed tertiary education. Clustered standard errors at the the country-region-year level in parenthesis. Stars \*, \*\* and \*\*\* denote significance at 10, 5 and 1 per cent, respectively.

Respondent's income level can be another important determinant of the immigration anti-redistribution impact. Table 6 estimates heterogeneous effects between income groups: low (p10 or less), middle-low (p10-p50), middle-high (p50-p90) or top incomes (top-10). We find that the effect of immigration on preferences for redistribution is driven mainly by individuals at the top of the income distribution. In fact, the higher the incomes of those surveyed, the lower their support for redistributive policies as a result of immigration. This result is consistent with the fact that wealthier people are likely to pay different direct taxes that can affect their perception of public spending and redistribution when they perceive immigrant beneficiaries.

 Table 6: Heterogeneous Effects: Income level

	Index	Welfare	Employment	Inequality	Health
Immigrants Share	-0.0988***	-0.0659***	-0.105***	-0.0473***	-0.135***
-	(0.0274)	(0.0241)	(0.0279)	(0.0181)	(0.0365)
Immigrants Share x Middle-High	0.0404***	0.0202	0.0463**	$0.0207^{**}$	$0.0587^{***}$
	(0.0152)	(0.0154)	(0.0180)	(0.00983)	(0.0166)
Immigrants Share x Middle-Low	$0.0476^{**}$	0.0211	$0.0589^{***}$	$0.0231^{*}$	0.0821***
	(0.0183)	(0.0181)	(0.0207)	(0.0124)	(0.0207)
Immigrants Share x Low	$0.0479^{**}$	$0.0338^{*}$	$0.0523^{**}$	$0.0213^{*}$	$0.0618^{**}$
	(0.0188)	(0.0179)	(0.0224)	(0.0127)	(0.0237)
High Income	-0.0988	-0.0659	-0.105	-0.0473	-0.135
P-value	$[0.000]^{***}$	$[0.007]^{***}$	$[0.000]^{***}$	$[0.0095]^{***}$	$[0.000]^{***}$
Middle-High Income	-0.0585	-0.0457	-0.0582	-0.0267	-0.0762
P-value	$[0.016]^{**}$	[0.025]**	$[0.008]^{***}$	$[0.094]^*$	$[0.023]^{**}$
Middle-Low Income	-0.0513	-0.0448	-0.0457	-0.0242	-0.0528
P-value	$[0.036]^{**}$	[0.041]**	[0.039]**	[0.138]	[0.118]
Low Income	-0.0510	-0.0320	-0.0522	-0.0261	-0.0730
P-value	[0.055]*	[0.134]	$[0.034]^{**}$	[0.145]	$[0.049]^{**}$
Observations	34,687	$35,\!042$	$35,\!120$	$60,\!189$	25,309
R2	0.097	0.071	0.084	0.078	0.085
Country-region-year FE	Yes	Yes	Yes	Yes	Yes
Regional Controls	Yes	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes	Yes
Ideology control	Yes	Yes	Yes	Yes	Yes

Dependent variables: Preference for redistribution variables

Notes: Dependent variable standarized (z-score). Regional controls include population, share of rural population and unemployment rate; individual controls include skill-level, age, sex, age\*sex and income scales. Ideology control considers how the respondent place himself in a scale from 1 to 10 where 1 is left-wing and 10 is right-wing. Clustered standard errors at the the country-region-year level in parenthesis. Stars \*, \*\* and \*\*\* denote significance at 10, 5 and 1 per cent, respectively.

Finally, another heterogeneous effect that may shed light on the mechanisms behind the negative relationship between immigration and pro-redistribution preferences in Latin America is that of immigrants' skill level. Bearing in mind that low-skilled immigrants are more likely to benefit from redistributive public policies than high-skilled migrants, the effect of immigration on redistribution preferences is expected to be larger when the share of low-skilled migrants in the population increases, while it may be reasonable to consider that the proportion of high-skilled migrants does not affect redistribution preferences at all or that its effect is low. Table 7 shows that the anti-redistributive effect is fully explained by low-skilled immigration; the share of high-skilled immigrants has no statistically significant effect on preferences for redistribution measures.

	Index	Welfare	Employment	Inequality	Health
Low-Skilled Immigrants	$-0.0641^{**}$	$-0.0493^{**}$	$-0.0691^{***}$	$-0.0429^{**}$	$-0.0731^{**}$
Share (logs)	(0.0283)	(0.0243)	(0.0241)	(0.0195)	(0.0363)
High-Skilled Immigrants	0.0127	0.0126 (0.0226)	0.0208	0.0198	0.00489
Share (logs)	(0.0239)		(0.0203)	(0.0175)	(0.0280)
Observations R2	$37,772 \\ 0.099$	$38,144 \\ 0.071$	$38,220 \\ 0.090$	$65,574 \\ 0.093$	$27,402 \\ 0.084$
Country-region-year FE	Yes	Yes	Yes	Yes	Yes
Regional Controls	Yes	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes	Yes
Ideology control	Yes	Yes	Yes	Yes	Yes

 Table 7: Heterogeneous Effects: Immigrants' skill level

Dependent variables: Preference for redistribution variables

Notes: Dependent variable standarized (z-score). Regional controls include population, share of rural population and unemployment rate; individual controls include skill-level, age, sex, age\*sex and income scales. Ideology control considers how the respondent place himself in a scale from 1 to 10 where 1 is left-wing and 10 is right-wing. High-skilled immigrants are those tiwth completed tertiary education. Clustered standard errors at the the country-region-year level in parenthesis. Stars \*, \*\* and \*\*\* denote significance at 10, 5 and 1 per cent, respectively.

# 6. Concluding Remarks

Latin America is one of the most unequal regions in the world in which there are different public policies trying to mitigate this problem. Recently, immigration has become a relevant phenomenon in the region. It may affect population's attitudinal responses to government actions, and thus, understanding this relation is a key issue for policy-makers.

In this paper we studied the immigration effect on preferences for redistribution in the region. We found a clear and negative relationship between the share of immigrants in a province and the support for redistributive policies in the province resident population. In addition, this negative effect on preferences fo redistribution is larger among individuals self-declared non-leftists, with a higher skill- and income-level. We also found that the anti-redistributive effect is fully explained by low-skilled immigration.

Given the relatively similar cultural backgrounds between immigrants and local population, we could have expected a lower impact on attitudinal responses. However, our results may be suggesting that nationality is simply the barrier in the extension of bonds of solidarity.

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# Appendix A

	IPUMS		LAF	POP	
Country	Census	Welfare	Employment	Inequality	Health
Argentina Bolivia Brazil Chile Colombia Costa Rica Ecuador Mexico Panama Paraguay Peru Dominican Republic Uruguay	$\begin{array}{r} 2001/2010\\ 2001\\ 2000/2010\\ 2002\\ 2005\\ 2000/2011\\ 2001/2010\\ 2000/2010\\ 2000/2010\\ 2000\\ 2002\\ 2007\\ 2010\\ 2011\end{array}$	$\begin{array}{c} 20\\ 20\\ 20\\ 20\\ 20\\ 20\\ 20\\ 20\\ 20\\ 20\\$	08-2012 08-2012 08-2012 08-2012 08-2012 08-2012 08-2012 08-2012 08-2012 08-2012 08-2012 08-2012 08-2012 08-2012 08-2012 08-2012 08-2012 08-2012	$\begin{array}{c} 2008-2016\\ 2008-2016\\ 2008-2016\\ 2008-2016\\ 2008-2016\\ 2008-2016\\ 2008-2016\\ 2008-2016\\ 2008-2016\\ 2008-2016\\ 2008-2016\\ 2008-2016\\ 2008-2016\\ 2008-2016\\ 2008-2016\\ 2008-2016\\ \end{array}$	$\begin{array}{c} 2010\mathcal{2}010\mathcal{2}2010\mathcal{2}$

Table A1: Data Sources

Table A2:         LAPOP questions for Redistribution Preference	ces
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Variable	Question	Scale
Welfare	The (Country) government, more than individuals, should be primarily responsible for ensuring the well-being of the people. To what extent do you agree or disagree	1 Strongly disagree - 7 Strongly agree
Employment	with this statement? The (Country) government, more than the private sector, should be primarily responsible for creating jobs. To what extent to do you agree or disagree with this statement?	1 Strongly disagree - 7 Strongly agree
Inequality	The (Country) government should implement strong policies to reduce income inequality between the rich and the poor. To what extent do you agree or disagree with this	1 Strongly disagree - 7 Strongly agree
Health	statement? The (Country) government, more than the private sector should be primarily responsible for providing health care services. How much do you agree or disagree with this statement?	1 Strongly disagree - 7 Strongly agree

# Appendix B

Country	Male	Age	Years of Education	Employee	Student
Argentina Bolivia Brazil Chile Colombia Costa Rica Ecuador Mexico Panama Paraguay Peru Dominican Republic Uruguay	$\begin{array}{c} 50.9\% \\ 50.8\% \\ 52.0\% \\ 61.2\% \\ 50.8\% \\ 52.6\% \\ 50.8\% \\ 50.8\% \\ 50.7\% \\ 50.0\% \\ 51.2\% \\ 52.1\% \\ 52.1\% \end{array}$	$\begin{array}{c} 37.3\\ 36.4\\ 37.6\\ 41.0\\ 35.9\\ 38.0\\ 37.0\\ 37.7\\ 36.8\\ 36.7\\ 36.9\\ 37.5\\ 40.3\end{array}$	$10.9 \\ 10.4 \\ 8.6 \\ 11.2 \\ 9.7 \\ 8.9 \\ 10.7 \\ 9.3 \\ 11.0 \\ 9.5 \\ 11.3 \\ 9.3 \\ 9.9 \\ 9.9$	$\begin{array}{c} 64.9\%\\ 62.8\%\\ 45.5\%\\ 57.1\%\\ 51.2\%\\ 56.9\%\\ 52.9\%\\ 45.6\%\\ 59.9\%\\ 56.3\%\\ 50.1\%\\ 64.1\%\end{array}$	$\begin{array}{c} 7.8\% \\ 11.2\% \\ 3.5\% \\ 6.2\% \\ 7.0\% \\ 8.3\% \\ 7.5\% \\ 5.1\% \\ 6.6\% \\ 7.1\% \\ 6.9\% \\ 4.1\% \end{array}$
Total	52.0%	37.6	10.0	56.3%	6.8%

Table B1: Descriptive Statistics: Main variables. LAPOP 2014

Notes. Own elaboration based on data from LAPOP 2014.

Country	Loft	Conton Loft	Conton	Conton Dight	Dialat
Country	Lett	Center-Lett	Center	Center-Right	night
Argentina	27.2%	7.5%	18.1%	32.3%	15.0%
Bolivia	19.1%	11.1%	21.9%	33.5%	14.4%
Brazil	21.8%	13.2%	18.4%	22.5%	24.0%
Chile .	23.9%	12.6%	17.7%	30.7%	15.1%
Colombia	19.8%	10.2%	13.9%	26.7%	29.4%
Costa Rica Equador	$\frac{1}{22}$	12.0% 14.107	14.7% 19 507	29.2%	20.4%
Mexico	20.470	14.170 1277	10.070 17.4%	$\frac{23.270}{24.3\%}$	$\frac{10.970}{25.3\%}$
Panama	54.9%	13.770	15.4%	24.370 24.2%	$\frac{20.070}{22.0\%}$
Paraguay	17.1%	13.1%	13.4%	5.5%	$\bar{2}\bar{8}.3\%$
Peru	25.5%	10.0%	18.2%	26.6%	19.7%
Dominican Republic	$\overline{14.3\%}$	$\bar{1}\bar{7}.\bar{7}\%$	$\bar{1}\bar{3}.\bar{8}\%$	$\bar{1}0.0\%$	$\bar{4}4.2\%$
Uruguay	16.4%	17.6%	25.8%	23.7%	16.6%
Total	20.9%	12.6%	17.8%	26.2%	22.5%

Table B2: Descriptive Statistics: Political affiliation. LAPOP 2014

Notes. Own elaboration based on data from LAPOP 2014. Ideological position constructed based on a question in which the respondent had to place himself in a scale from 1 to 10 where 1 is left and 10 is right ideology. Considering this scale Left comprise 1-2, Center-Left 3-4, Center 5, Center-Right 6-7 and Right 8-10.