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Between Numbers and Perceptions: Official Statistics and Attitudes toward Immigrants

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1. INTRODUCTION

After more than a century marked predominantly by emigration, Italy officially became a country of immigration in 1981, when national Population Census recorded a positive net migration balance for the first time (Istat, 1987). Since then, the number of immigrants has

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steadily increased, though with a slower rate after its peak in the first decade of the 21st century (Cangiano & Strozza, 2008). Following slowdowns caused by the 2008 economic crisis and later the 2020-2021 Covid-19 pandemic, incoming migratory flows have recently begun to recover (González-Leonardo et al., 2025). According to the latest data from the OECD International Migration Database (OECD, 2025) foreign residents account for about 9% of Italy's total population, a figure that has increased nearly four times since 2000. An especially notable trend concerns the growing share of young people with a migrant background: approximately 21% of children in Italy are born into families in which one or both parents are non-Italian citizens. This proportion has risen by about 3.5 times over the past 25 years (Istat, 2024).

This demographic transformation places Italy within a broader Western trend wherein the sustained arrival of immigrants is reshaping socio-cultural and demographic landscapes. The salience of immigration is reflected in European public opinion: approximately one in four EU citizens identify immigration as one of the three most pressing challenges facing the Union. As such, immigration has become a persistent and polarizing issue in both political debate and public discourse (European Commission, 2018, 2022).

Social research often links shifts in demographic composition and an increase in the number of immigrants to negative changes in natives' attitudes towards immigrants (Papademetriou & Banulescu-Bogdan, 2016; Semyonov et al., 2006). This is accompanied by widespread misperception of the share of foreign population in many countries: residents tend to overestimate the proportion of the migrant population and, as a result, form their attitudes based on distorted perceptions of reality (Alba et al., 2005; Alesina et al., 2021; Citrin & Sides, 2008, 2008; Dylong & Uebelmesser, 2024; Grigorieff et al., 2016, 2020; Kunovich, 2017). According to the latest Eurobarometer survey in 2021, a significant majority of EU citizens – almost seven in ten (68%) – believe there are more immigrants living in their country than official figures indicate, a trend particularly pronounced in Italy (European Commission, 2022).

These misperceptions often are closely tied to perceived threat, a concept extensively theorized through *Intergroup Threat Theory (ITT)* that suggests that perceptions of out-group size, either accurate or biased, play a central role in shaping majority group reactions. Drawing on Blalock's theory of minority group, intergroup discrimination and conflict (Blalock, 1967) and later developments by Stephan and coauthors (Stephan et al., 2009, 2016; Stephan & Stephan, 2000a), ITT differentiates between *realistic threats* – threat to the existence of the in-group (welfare, political and economic power, physical or material well-being including competition for jobs, housing, or public resources (Stephan et al., 1998, p. 560) – and *symbolic threats*, that

focuses on group differences in norms, values, beliefs, and morals, which pertains to perceived risks to national identity, language and cultural identity of the in-group members.

Building on this wide framework, this study examines whether the perceived threat is the mechanism underlying attitudes towards migrants in contemporary Italy, and if so whether it can be corrected. A central contribution of this study is its focus on a largely overlooked group: *children with a migratory background*, defined as those whose one or both parents are non-Italian citizens. Focusing on second-generation migrants is both deliberate and timely, given demographic transformations currently unfolding in Italy and the increasing fear of a change in the future population structure. Against this backdrop, we first investigate whether Italians misperceive the share of children with a migration background, and then assess the extent to which accurate demographic information influences their attitudes toward immigrants and their children. More specifically, we employ an information-provision survey experiment conducted in Italy, in the fall of 2024 on a sample of 2,000 individuals. Prior research shows that native populations commonly overestimate the proportion of migrants in their countries, and that correcting these misperceptions can reduce perceived threat and foster more positive attitudes toward immigrants (Alba et al., 2005; Sides & Citrin, 2007; Kunovich, 2017; Grigorieff et al., 2016, 2020; Dylong & Uebelmesser, 2024). Building on this evidence, our research examines whether providing respondents with accurate information about the share of children of migrants and long-term demographic trends can affect their views.

This leads to two guiding research questions. First, does learning about the accurate share of children born to families with one or both non-Italian parents affect attitudes toward immigrants and their children? Second, does accurate information about how this proportion evolved over the past 25 years produce shifts in these attitudes? Both the current figures and the long-term trend are taken into account: the former signals a “current threat,” whereas the latter indicates the growing stability and structural nature of immigration as a social phenomenon. Because individuals may either overestimate or underestimate these figures, we test whether overestimators become more positive toward immigrants when they learn that the numbers are lower than expected, and whether underestimators develop more negative attitudes when they discover that the figures are higher than they had assumed. The study measures the effect of updated information on eight dimensions of attitudes towards migrants and their children, covering broadly areas of economic concerns, demographic anxieties, fears of political disorder and crime, and worries about physical safety and cultural change (Stephan & Stephan, 2000).

The article is organized as follows. Section 2 reviews the theoretical background, summarizes previous findings, and formulates the hypotheses. Section 3 describes the methodology, research design, empirical strategy, and the dataset and sample. Section 4 presents the main findings, first examining the correlates of biases in perceptions of the share of children born to families with one or both immigrant parents and the perceived trend of this change, then assessing the impact of information treatments on attitudes toward migrants. Section 5 concludes the article.

2. THEORETICAL FRAMEWORK AND EMPIRICAL EVIDENCE

Individuals shape their attitudes towards immigrants based on various factors, including objective information, personal experience, and subjective perceptions. For instance, according to Group Position Theory (Blumer, 1958) individuals shape their negative attitudes towards migrants when members of the majority group consider immigrants as a threat to their social, economic, and cultural positions, when they perceive immigrants as competitors for limited resources like jobs and welfare, which is known as intergroup competition hypothesis (Alesina et al., 2021).

Integrated Threat Theory (Stephan et al., 2016), continuing the same logic, provides a more nuanced framework for understanding the mechanisms underlying attitudes towards migrants. This theory differentiates perceived threats into two broad types: *realistic threats*, which relate to economic competition, physical safety, and access to material resources, and *symbolic threats*, which refer to cultural identity and values (Stephan et al., 1998, 2008; Stephan & Stephan, 2000a). The theory argues that perceptions of threats, whether realistic or symbolic, play an important role in the development of prejudices, negative attitudes toward immigrants and support for anti-migrant policies, regardless of whether these threats are objective or not.

Recent studies show that individuals often hold biased perceptions and tend to overestimate the share of migrants in their country (Alesina et al., 2023; Barrera et al., 2020; Citrin & Sides, 2008; Hjerm, 2007; Kunovich, 2017). Empirical research has also found that larger actual shares of immigrant populations can be associated with stronger perceived threats and more negative attitudes toward migrants (Blalock, 1967; Quillian, 1995; Semyonov et al., 2006; Taylor, 1998). However, the empirical evidence is not entirely consistent. For example, Hjerm (2007) for 20 European countries found no association between either the actual or the perceived share of migrant population in these countries and attitudes towards migrants. In the same way, in the Italian context, Nese (2023) shows that natives' attitudes toward migrants are

shaped not by the share of the foreign population but by the unemployment rate among migrants.

Nevertheless, a substantial body of research indicates that biased perceptions themselves have meaningful effects on attitudes toward migrants. Overestimations of the share of immigrants is linked to stronger negative attitudes towards them, increased support for anti-immigrant policies and negative stereotypes (Herda, 2013; Schlueter & Scheepers, 2010), as well as increased fears of economic competition and cultural erosion (Alba et al., 2005; Glaser, 1994). When native-born individuals think that immigrants constitute a larger share of the population than they do, they may perceive this group as a greater threat to their economic status, welfare, values and cultural norms.

However, the direction of the causal mechanism predicted by the theory remains contested. Hopkins et al. (2019) question whether perceived share of immigrants indeed drives attitudes, suggesting that pre-existing negative attitudes towards migrants lead individuals to overestimate the proportion of migrants and justify these attitudes through threat-based reasoning. This puzzle highlights an empirical challenge and requires an accurate test for causal inferences.

A few experimental studies examined whether providing corrective factual information about the share or characteristics of the migrant population can influence attitudes towards migrants. The literature proposes mixed findings. Grigorieff, Roth and Ubfal (2020) show that participants in a survey experiment in the U.S. who got corrective information treatment improved their attitudes towards migrants, for those who initially had negative views. Dylong and Uebelmesser (2024) conducted a large-scale survey experiment in Germany and also found that provision of accurate information about the migrant population reduces welfare concerns, but at the same time, its effect on concerns about competition in the labour market is limited.

Two other studies provide alternative evidence. Hopkins, Sides and Citrin (2019) reported findings of seven survey experiments over eleven years in the U.S. showing no effect of correct information about the size of the immigrant population on attitudes towards migrants. Similarly, Alesina, Miano and Stantcheva (2023) based on results of a large-scale survey experiment conducted in Germany, France, Italy, Sweden, the U.K., and the U.S highlighted that even if individuals overestimate the share of immigrants and get corrective information, they remain reluctant to change both their preferences for redistribution and attitudes towards migrants.

Mixed evidence of survey experiments suggests that while the provision of corrective information reduces misperceptions, it does not always lead to a change in attitudes. The inconsistency of these recent findings motivates further investigation and advances in research design.

3. CONTRIBUTION OF THIS STUDY AND HYPOTHESES

This research makes several contributions to the previous literature. To date, empirical research on natives' attitudes towards migrants has largely focused on perceived threats associated with the adult migrant population, while much less attention has been paid to children of migrants and their role in shaping broader attitudes towards migrants. A distinctive contribution of this study is treating the perception of migrant children as a forward-looking demographic signal. This study is the first to investigate whether providing accurate information about the number of children with migrant background can influence perceived threat and attitudes towards immigrants. We conceptualise “children with a migration background” or “migrant children” as those who were born in a family where one or both parents are foreigners, non-Italian citizens.

Perceptions of migrant children operate on a broader temporal horizon than perceptions of the current foreign population. While views about the share of adult migrants primarily capture a snapshot of the present, perceptions of the proportion of children with a migrant background involve implicit projections about future demographic developments (Passel, 2011). When individuals consider the presence of children with a migration background, they may, often implicitly, reflect on the future demographic composition of society, potential competition between natives and migrants over scarce resources, prospects for social cohesion, and the continuity of cultural traditions.

Moreover, children with a migration background are more likely to be perceived as a permanent component of society compared to migrant adults (Portas and Rivas, 2011), who may be seen as temporary residents associated with labor migration and therefore potentially more transient. Focusing on children thus allows for the examination of more future-oriented forms of perceived threat, including concerns about demographic change, potential population replacement, competition for economic or cultural resources, and long-term cultural transformation.

However, the children of immigrants, especially if they are second generations, may also be considered as a more favorable category compared to adults. Clerici et al. (2025) find, for instance, that the presence of children among refugees can foster more positive attitudes

towards this group and support for integration policies for them. Also, natives' attitudes towards migrants may vary according to the latter's generational status. Second-generation (and later generations) migrants are often perceived as less threatening – especially in terms of symbolic threat – insofar as they are more likely to internalize norms, culture and values of the mainstream society (Matera et al., 2015).

Figure 1 illustrates the conceptual model underlying this study. Building on Group Position Theory and Integrated Threat Theory, it depicts the process through which information and perceptions shape attitudes towards migrants. The figure shows that natives' perceptions of the share of migrant children may influence a sense of threat. These perceived threats act as a mediating mechanism that links perceptions about the migrant population and general attitudes towards migrants. We design a survey experiment in which we manipulate this sense of threat by providing respondents with accurate information about the share of migrant children. Depending on the initial beliefs of respondents, the treatment may either increase or reduce the perceived threat and consequently update individuals' attitudes towards migrants.

FIGURE 1. THE MECHANISM OF FORMING ATTITUDES TOWARDS MIGRANTS



This study estimates how perceptions of threat influence attitudes towards migrants, reflecting either realistic or symbolic threats: economic fears, demographic anxiety, perceptions of crime and political disorder, and concerns about culture, and physical safety. Components related to realistic threat refer to the perceptions that immigrants pose a tangible danger to the well-being or stability of the host society, and concerns about culture capture perceived challenges that immigrants pose to national identity, cultural continuity, shared norms and values.

Therefore, building on Intergroup Competition Hypothesis (ICH) (Alesina et al., 2021; Blumer, 1958) and the Integrated Intergroup Threat Theory (ITT) (Stephan & Stephan, 2000a), we expect that updating individuals' perceptions of the share of children with a migrant background through accurate statistical information may change perceived threat and consequently their attitudes towards migrants and their children. Specifically, we hypothesise that:

H1a. Individuals who initially underestimate the share of migrants may develop more negative attitudes when presented with accurate information indicating a larger share of children born to mixed or migrant families, or a stronger upward trend over the past 25 years.

H1b. Conversely, individuals who initially overestimate the share of migrants may display more positive attitudes when exposed to accurate information showing a smaller share of children born to mixed or migrant families, or a weaker trend in their growth over the past 25 years.

These hypotheses are based on the assumption that attitudes towards migrants are dynamically shaped and are elastic to the updated learning, contrary to Hopkins et al. (2019) and Alesina et al. (2023), who propose that attitudes towards migrants are rooted in stable predispositions, shaped in early life and fixed during socialisation. The detailed hypotheses for each individual outcome are pre-registered.

4. METHODOLOGY

4.1 Research design and measurement

The survey experiment proceeded in three steps. First, respondents were asked to estimate the current share of children born in mixed and migrant families in Italy (*“In your opinion, in the last year, for every 100 children born, how many have at least one foreign parent? Please indicate the percentage of children born in the last year who have at least one foreign parent. If you are unsure, try to suggest the value that seems most plausible to you.”*) and the share 25 years ago (*In your opinion, in 1999, for every 100 children born, how many have at least one foreign parent? Please indicate the percentage of children born in the last year who have at least one foreign parent. If you are unsure, try to suggest the value that seems most plausible to you*). Participants were invited to use the slider for the answer, where 0 indicated that “all children have both Italian parents” and 100 that “all children have at least one foreign parent”. These estimates provide the baseline for the calculation of individual biases and tailoring the information treatments. Here and below, we refer to the perceived current share of migrant children as measured for the year 2023 (“in the last year” in the question asked in 2024).

In the second step, a multi-arm experiment with three groups and personalised feedback was implemented. The first treatment group got corrective information about *the current share of children born in migrant or mixed families*. Respondents were told the actual share of children born in mixed or migrant families and informed whether their initial estimates were 1) *correct*,

2) *underestimated* or 3) *overestimated*. The second treatment group received the information about *the change of this share over the past 25 years* (as the difference between now and 1999) and was similarly informed about the accuracy of their estimates as: 1) *correct*, 2) *underestimated* or 3) *overestimated*. The control group did not get any information. The exact visual materials and corresponding sliders are available in the Appendix.

Moreover, respondents in the share treatment were informed that the current share of children born in mixed and migrant families is 21%. Similarly, respondents in the trend condition were informed that this share has increased by 15 percentage points over the last 25 years. The official statistics underlying these values are drawn from Istat (2024). In both treatment arms, a tolerance threshold of ± 2 percentage points defined accurate perceivers: 19 - 23 percent for the current share and 13 - 17 percentage point increase for the long-term trend.

In the third step, after information treatment, all participants, including members of the control group, answered a battery of questions gauging attitudes towards immigrants and their children. Items capture six statements related to realistic threat and two statements related to symbolic threat, each item is measured on a 10-point scale (1 “completely disagree”, 10 “completely agree”). Attitudes towards migrants related to realistic threats are conceptualized as concerns about economic competition with migrants, demographic replacement, and public fears about the rise of crime and political disorder. These measures are as follows:

- economic concerns related to future jobs and burden on finances (*“Children of foreigners will steal jobs from Italians in the future”* and *“Foreign citizens are a burden on the finances of the Italian State because they exploit our services (hospital, school, social services)”*)
- concerns about the physical existence of the group related to compensation of Italian population and the future of Italians (*“Children born into immigrant families are essential to compensate for the few children born into Italian families”*, *“There will be no more children of Italians in the next 50 years”*).
- concerns about political order and deviance related to crime caused by immigrants (*“Children of immigrants contribute to the spread of degradation and crime”*, *“The Italian government should facilitate the acquisition of Italian citizenship by the children who were born in Italy by foreign parents”*).

Attitudes towards migrants related to symbolic threat are conceptualized as cultural concerns measured as a threat to national identity or cultural values:

- concerns related to the cultural preservation and integration (“*The presence of foreigners in Italy poses a threat to the cultural preservation of the Italian population*”, and “*The children of foreigners do not have integration problems because they were born and raised in Italy*”).

4.2 Empirical strategy

The survey experiment research design eliminates the risk of endogeneity and ensures that the difference in attitudes towards migrants gauged after treatment can be attributed to the correction. This design allows testing causal hypotheses, in our case, about the effect of perceived threat on attitudes towards migrants. To estimate the treatment effect, we employ an ordinary least squares regression model (OLS) that is specified as follows:

$$y = \beta_0 + \beta_1 T + \lambda X + \varepsilon \quad (1)$$

where y represents each of eight attitudinal outcomes, T the treatment conditions, and X refers to a set of control variables and prior beliefs about the share of children born in mixed or migrant families currently and in 1999.

Although experimental design enables comparable conditions between experimental and control groups, socio-demographic control variables are added to balance out any remaining differences, increase the precision of estimates and improve standard errors. Inclusion of the current perceived share as a control variable as well as of the perceived share of migrant children in 1999 that captures participants’ prior beliefs about past migration and demographic trends accounts for the full range of baseline beliefs on a continuous scale, reduces potential bias and allows for more accurate estimates of the causal effect of the treatment (Grigorieff et al., 2020).

In order to provide further nuance to results, we also explore heterogeneous treatment effects across subgroups defined by geographical region, education levels, and political orientation, assessing whether the impact of treatment varies across different conditions. These dimensions were selected for both theoretical and empirical reasons. Italian regions are differently exposed to migration, Northern industrial regions like Lombardy, Veneto, Piedmont, Emilia-Romagna face stronger migration inflows compared to South (Valle et al., 2023). These differences reflect structural disparities and asymmetric demographic compositions. Education is associated strongly with cognitive sophistication, openness to diversity and may also affect the responsiveness to corrective information (McLaren, 2003; Visintin et al., 2017). Political orientation reflects ideological predispositions that structure beliefs about migrants and

national identity(Gorodzeisky and Semyonov, 2015; Boateng et al., 2021). It may moderate effect of updated information on attitudes towards migrants. Testing these heterogeneous effects allows us to assess whether there is a subgroup difference depending on exposure, cognitive resources, and ideology.

4.3 Data and sample

The survey experiment was conducted online within a broader survey on perceptions of inequality (Kulic et al., 2025). Data were collected in November and December 2024 using a quota sample in Italy. The total sample of the survey experiment is 2,000 respondents aged from 18 to 75 years old. The quota sample represented Italian population based on key demographic characteristics, including age groups (18–24, 25–34, 35–44, 45–54, 55–64, and 65–75), gender, education level (low, middle, and high), employment status (active versus non-active) and macro geographic regions (North, Centre, South, and Islands) (Table 1). An a priori power analyses (power=0.9, $\alpha=0.05$) conducted with g-POWER (Erdfelder et al., 1996) showed that the sample of 2,000 is sufficient to detect small size effects of less than 0.15 SD.

Socio-demographic data were collected before the experiment and allowed to account for heterogeneity in our analysis. The experiment duration was approximately 5-7 minutes.

TABLE 1. SAMPLE DESCRIPTION BY TREATMENT GROUPS: KEY VARIABLES USED IN THE ANALYSES

	Control	Treatment	Treatment	Total
		Share	Trend	
	Col %	Col %	Col %	Col %
<i>Gender</i>				
Woman	50.45	50.07	50.07	50.2
Man	49.40	49.63	49.78	49.6
Other	0.15	0.30	0.15	0.2
<i>Age</i>				
18-24 years old	9.76	9.75	9.90	9.8
25-34 years old	15.47	15.29	15.14	15.3
35-44 years old	18.62	18.44	18.44	18.5
45-54 years old	23.27	23.39	23.39	23.4
55-64 years old	21.17	21.44	21.14	21.3
65-70 years old	11.71	11.69	11.99	11.8
<i>Education</i>				
Low education	31.98	32.23	32.08	32.1
Secondary education	43.99	43.93	43.93	44.0
High education	24.02	23.84	23.99	23.9

<i>Employment status</i>				
Employed	57.21	57.57	57.72	57.5
Unemployed	10.06	10.34	10.34	10.3
Inactive	29.58	29.24	29.09	29.3
Other	3.15	2.85	2.85	2.9
<i>Children in a household</i>				
No children in the hh	42.64	41.08	39.58	41.1
Children in the hh	57.36	58.92	60.42	58.9
<i>Political orientation</i>				
Left	21.17	20.69	19.64	20.5
Center-Left	22.07	22.79	26.84	23.9
Centre-Right	19.37	18.29	15.89	17.9
Right	21.47	21.44	22.49	21.8
Missing	15.92	16.79	15.14	16.0
<i>Income quintiles</i>				
1 st income quintile	18.47	21.59	20.39	20.2
2 nd income quintile	21.17	20.84	17.99	20.0
3 rd income quintile	23.27	20.09	19.79	21.1
4 th income quintile	16.52	15.59	22.34	18.2
5 th income quintile	20.57	21.89	19.49	20.7
<i>Regions</i>				
North West	27.63	27.74	27.89	27.7
North East	18.47	18.14	18.44	18.4
Center	19.52	20.09	19.64	19.8
South and Islands	34.38	34.03	34.03	34.1
	Control	Treatment	Treatment	Total
		Share	Trend	
	Means	Means	Means	Means
Beliefs about the share of children in 1999	30.98	28.27	31.41	30.22
Perceived share of children in previous year	48.48	45.18	49.60	47.76
Total	100.00	100.00	100.00	100.00
(N)	(666)	(667)	(667)	(2,000)

Table 1 displays a balance check for the main socio-demographic variables and the means for the perceived share of children born in mixed and migrant families in 1999 and the year before

the survey across different treatment arms. As shown, the randomization was performed well, with very small differences across groups. Minor discrepancies are observed in prior beliefs, with differences of 1-3 percentage points between the control and treatment groups.

Table 2 presents means and standard deviations for dependent variables across the control and treatment groups. The items capture eight attitudinal statements discussed in the section *Research design and measurement* exploring four dimensions of perceived threat: cultural, demographic, economic, and public order concerns. Importantly, we used both positive and negative statements for the evaluation, for this reason indicators do not show the same direction. For some statements, higher scores correspond to more negative attitudes towards migrants, while for others they signal more positive views. Despite this difference, mean values across all dimensions cluster around the midpoint of the 10-point scale.

It is important to note that respondents in the treatment arms received personalized information based on their prior beliefs about the share or the trend of the share of children born in families with at least one foreign parent. As a result, the treatment can either increase or decrease perceived threat, depending on whether individuals initially underestimated or overestimated these values. Because the direction and magnitude of information correction vary across individuals, aggregated mean differences between treatment and control groups may hide important heterogeneity. Therefore, in the section *Results* heterogeneous treatment effect conditional on respondents' initial misperceptions are examined.

TABLE 2. SUMMARY STATISTICS FOR DEPENDENT VARIABLES: MEAN AND STANDARD DEVIATION IN BRACKETS

Dependent variables	Control	Treatment share	Treatment trend	Total
<i>Cultural</i>				
1. Children of immigrants are a threat to cultural preservation	4.98 (2.79)	5.10 (2.71)	5.03 (2.74)	5.04 (2.74)
2. Children of immigrants do not have integration problems	5.89 (2.37)	5.84 (2.42)	5.74 (2.43)	5.82 (2.41)
<i>Demographic</i>				
3. Children of immigrants compensate for the few Italian children	5.57 (2.48)	5.66 (2.45)	5.64 (2.50)	5.63 (2.47)
4. No more children of Italians in the next 50 years	5.16 (2.53)	4.91 (2.62)	5.15 (2.64)	5.07 (2.60)
<i>Economic</i>				
5. Children of immigrants will steal jobs from Italians	4.41 (2.64)	4.38 (2.53)	4.57 (2.69)	4.45 (2.62)

6. Foreigners are a burden on the finances	5.05 (2.66)	5.07 (2.70)	5.04 (2.67)	5.06 (2.67)
<i>Order and crime</i>				
7. Children of immigrants spread degradation and crime	4.39 (2.59)	4.49 (2.58)	4.44 (2.65)	4.44 (2.60)
8. Italian government should facilitate acquisition of citizenship for children of immigrants	6.22 (2.61)	6.18 (2.63)	6.28 (2.59)	6.23 (2.61)

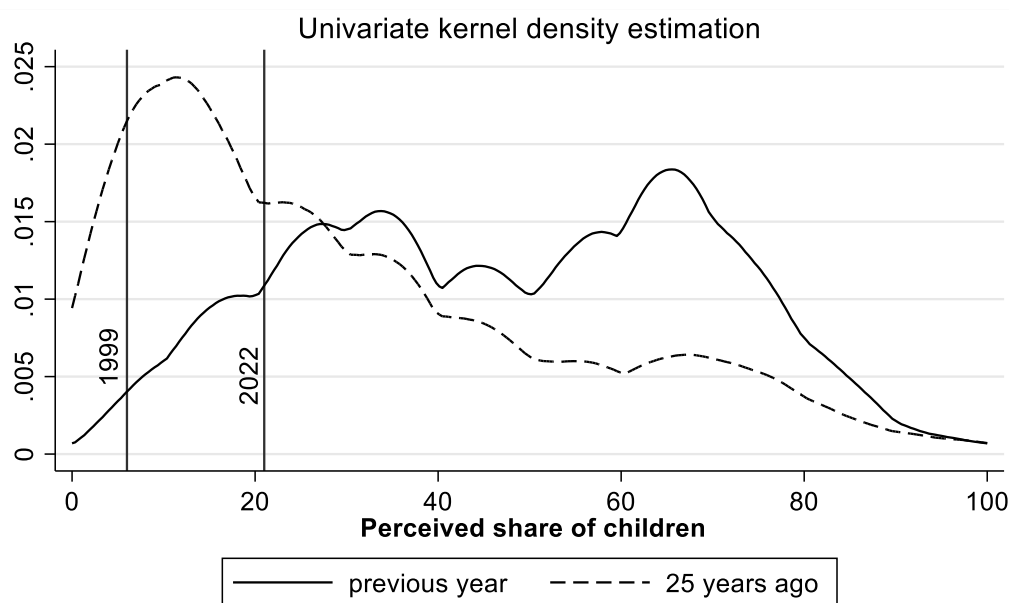
5. DESCRIPTIVE ANALYSES

5.1 Identification of misperceptions

To assess misperceptions, we first examine respondents' perceived share of children with a migration background nowadays and 25 years ago (Figure 2), as well as perceived change in this share over time. We then calculated the deviation of these perceptions from the official statistics: the share of children born in families where one or both parents are foreigners, according to Istat was 6% in 1999 and became 21% in 2022. Correspondingly, the increase in the share of children of migrants is 15 percentage points.

Figure 2 shows that participants largely overestimate the current share of children born in mixed and migrant families, while they are slightly more accurate about historical data. When estimating the share of children with a migration background born in 1999, most participants were closer in their estimates to accurate statistics, with the mode value around 10%. By contrast, estimates of the current share display a strong bias towards overestimation with a mode value around 70%.

FIGURE 2 PERCEIVED SHARE OF CHILDREN BORN IN MIXED AND MIGRANT FAMILIES

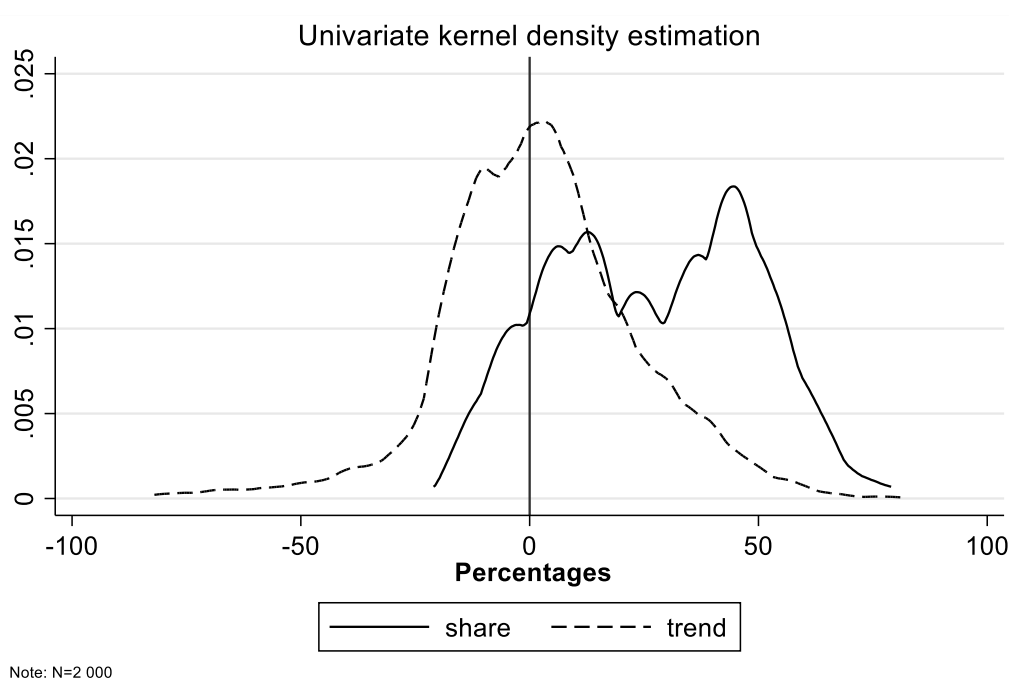


Note: N=2 000, previous year refer to 2023

To better capture biases in perceptions and to assign participants to the correct treatment condition in two treatment scenarios, we calculated two misperception measures: 1. misperception of the current share of children born in families where at least one parent is a foreigner, defined as perceived share minus the official value of 21%, and 2. misperception of the trend, defined as the perceived change for the last 25 years minus 15 percentage points (to be more precise: perceived current share minus perceived share in 1999, minus 15%).

Figure 3 illustrates the distribution of both types of misperceptions, expressed as percentage deviation from official statistics. Values range from -100 to 100, with 0 indicating accurate perception. These findings reveal that there is an overwhelming majority of the participants who overestimate the current share of children who were born in mixed and migrant families (83%) with an average bias of +33 percentage points (sd=18). At the same time, perceptions of the trend over time are considerably more accurate: the distribution is centered around 0 and approximately normal, and splits the participant more evenly between overestimation and underestimation.

FIGURE 3 MISPERCEPTIONS OF THE SHARE OF CHILDREN BORN IN MIXED AND MIGRANT FAMILIES AND TREND OF THIS CHANGE OVER THE LAST 25 YEARS



5.2 Correlates of misperceptions about the share of migrants' children

Figure 4 presents predictive margins from regression models (full regression coefficients in Table A. 1 in Appendix) and provides an overview of how sociodemographic characteristics relate to misperceptions of both the current share of children born in families with at least one foreign parent (Model 1, blue circles), and perceived change of this share over the last 25 years (Model 2, red triangles). Overall, misperceptions are widespread across the population, and the misperception about the current share of children born in mixed and migrant families is much more pronounced compared to the misperception of the historical trend. The degree of these misperceptions vary only moderately across socio-demographic groups.

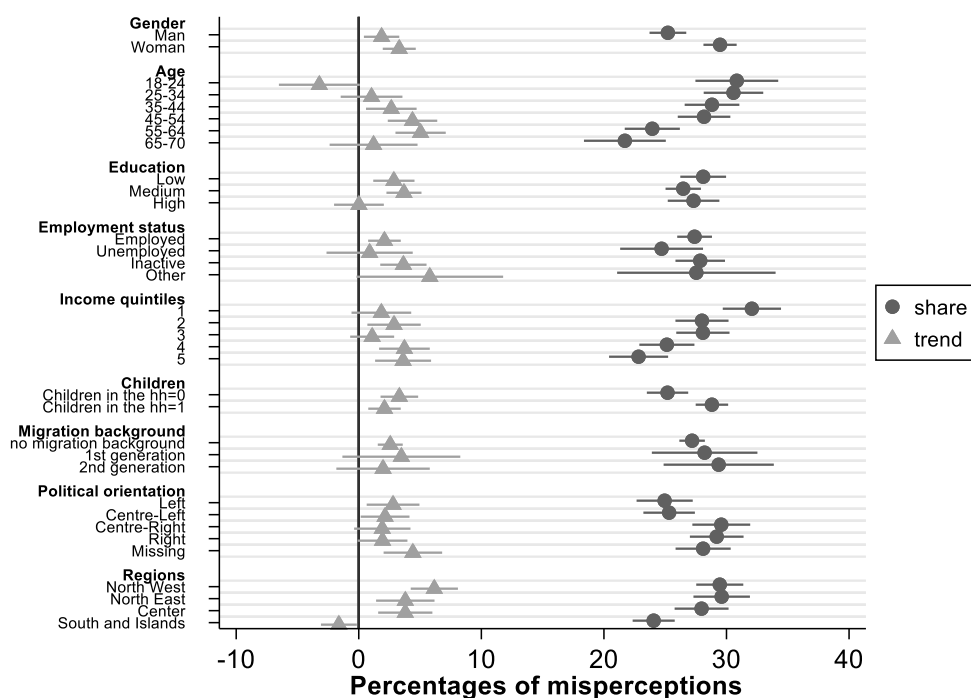
All demographic groups tend to overestimate the share of children born with a migration background: overestimation of the current share is typical for all social and demographic groups, varying from 21 to 32% (Model 1, blue circles). At the same time, all social and demographic groups are generally more accurate when assessing the trend of change of this share over the last 25 years (red triangles, model 2): the variation is from -3 to 6%.

However some systematic differences emerge: women exhibit larger misperception of the share compared to men (+4.3 percentage points), very young (+9 pp, 18-24) compared to oldest age group (55-70), members of lowest income quintiles (+9.3 pp, 1st quintile) compared to the highest income group, centre-right and right individuals (+4.6 and +4.3 pp) compared to left,

and residents in Northern regions (around +5.5 pp) compared to Southern areas. There is no substantial difference by migration status, employment and education of respondents.

Overall, the perceptions of the long-term trend are much more accurate. At the same time, the socio-demographic correlates expose different associations with dependent variables here. For example, older individuals tend to overestimate the historical increase in the share of children born in mixed or migrant families. Age effects change direction compared to perceptions of the current share: older respondents aged 35-44, 45-54, and 55-64 overestimate the increase compared to the youngest (+5.9 pp, +7.6 pp, +8.3 pp, correspondingly). Regional differences show that residents in Southern regions are more accurate in their estimates of the trend (North West +7.8 pp, North East and Centre both +5.4 pp). Other socio-demographic parameters are not significantly associated with trend misperceptions.

FIGURE 4 CORRELATES OF MISPERCEPTIONS OF THE SHARE OF CHILDREN BORN IN MIXED AND MIGRANT FAMILIES AND THE CHANGE OF THIS SHARE (PREDICTIVE MARGINS)



Note: N=1 996

5.3 Identification of experimental conditions: underestimators, overestimators and accurate perceivers

It is essential for our analysis to identify which participants received which type of information treatment, as this classification determines the expected direction of the treatment effects. Respondents in both treatment arms were classified into three groups: overestimators (positive

bias), underestimators (negative bias) and accurate perceivers (within ± 2 percentage points of the true values, which are 21% for “share” and 15 percentage points for “trend”). Table 3 presents the distribution of respondents across experimental conditions.

TABLE 3 DISTRIBUTION OF RESPONDENTS ACROSS TREATMENT CONDITIONS

Treatment groups	Freq.	Percent
Control	666	33.30
Treatment “Share”, underestimators	67	3.35
Treatment “Share”, accurate perceivers	65	3.25
Treatment “Share”, overestimators	535	26.75
Treatment “Trend” too low, underestimators	287	14.35
Treatment “Trend”, accurate perceivers	47	2.35
Treatment “Trend” too high, overestimators	333	16.65
Total	2,000	100.00

The largest subgroup among treatment conditions after the control group consists of overestimates who got information treatment about the “share” (26.8%), followed by overestimators who got treatment “trend” (16.7%) and underestimators who got treatment “trend”. The remaining subgroups comprise each less than 5% of the sample.

6. MAIN FINDINGS

6.1 Perceptions of the current share of children born in mixed and migrant families and attitudes towards migrants and their children

Attitudinal outcome variables gauge both positive and negative views on migrants. Across all outcomes capturing negative attitudes towards migrants, the perceived current share of children born in mixed or migrant families shows a small but statistically significant association with dependent variables. Specifically, individuals who believe that the share of children born in mixed and migrant families is larger than the actual share are more likely to support statements who describe migrants as a threat, such as: “migrants are a cultural threat”, “there will be no more Italian children in 50 years”, “migrant children will take jobs from Italians”, “migrants are a welfare burden”, “children of migrants contribute to degradation and crime”. A one percentage point increase in perceived current share of migrant children is associated with a 0.01-0.02 ($p < 0.01$) increase in support for negative statements about migrants (Table A. 2).

It is important to note that perceptions of the share of adult migrants are strongly correlated with perceptions of the share of migrant children ($r=0.61$, $p<0.001$). It suggests that both measures capture a closely related underlying perception of demographic change. When we replicate the models discussed above and use perceived share of adult migrants instead of migrants children, the estimated effects are similar (Figure A 3). This indicates that misperceptions regarding migrant children operate in the manner consistent with the literature on perceived share of migrant population and anti-migrant attitudes.

To verify that these associations are not driven by information treatment, we re-estimated the models for the control group only (Table A. 2 in the Appendix). The results confirm this pattern: among untreated respondents, negative attitudes towards migrants are associated with perceived current share of children with a migration background (0.02, $p<0.01$).

In addition, Table A. 4 in the Appendix shows that there is a statistically significant difference between underestimators and overestimators when it concerns some attitudes related to realistic threats: “there will be no more Italian children” (overestimators express stronger support for this statement on 0.98 on 10 point scale, $p<0.01$), “migrant children will take jobs from Italians” (on 0.85, $p<0.05$), “migrant children contribute to crime” (on 0.85, $p<0.05$). Perceptions of the past share (1999) show weaker associations (0.01, $p<0.01$) and for only three statements out of eight: “migrant children compensate for decline in population”, “migrant children will take jobs from Italians”, “children of migrants contribute to degradation and crime”.

Taken together, these findings are consistent with previous research (Alba et al., 2005; Herda, 2013; Quillian, 1995; Semyonov et al., 2006). Our results suggest that the perceived share of migrants’ population correlates to attitudes but is most strongly related to realistic threat dimensions: concerns about demographic decline, competition in the labour market, and public order.

6.2 Misperceptions, corrections and attitudes towards migrants

The persistent presence of misperceptions documented above provides a rationale for evaluating the impact of corrective information on attitudes towards immigrants. This manipulation allows us to estimate the extent to which perceived threat affects attitudes towards migrants. If concerns about migrants partly reflect inaccurate beliefs about the size and growth of migrant children, then experimentally correcting these misperceptions may alter perceived threats and, consequently, foster more positive or negative attitudes towards migrants. For example, individuals who overestimate the share of migrant children may have increased sense

of threat. Providing accurate information may reduce perceived threat and improve their attitudes towards migrants and their children compared to the control group.

Following the empirical strategy, we evaluate the effect of the treatments on attitudes towards migrants across two treatment arms. Table 4 reports the results of OLS regressions of the dependent variables on categorical variable identifying treatment conditions. The treatment variable comprises seven categories: control group and six treatment groups corresponding to personalised corrective information, and are complemented with prior beliefs and a set of socio-demographic covariates (Table 1 – full specification is available in the Appendix, Table A. 6).

The data show that corrective information rarely shift attitudes, net of prior beliefs. However there are some exceptions. The first notable finding refers to the situation in which once people learn that the share of children born in mixed and migrant families is smaller than they initially thought (treatment “share is too high”), they express less support for the demographic-replacement statement (“there will be no more Italian children in next 50 years”) (-0.29, $p < 0.05$). In this case, information creates coherent effect corresponding to the theoretical expectation that correcting the exaggerated demographic beliefs reduces perceived threat. A second set of effects appears among those participants who underestimated the share of children born with a migration background where corrective information leads to small but statistically significant enhancement of positive attitudes: greater agreement with the statement “migrant children have no integration issues” (0.58, $p < 0.1$), “migrant children compensate decline in population” (0.59, $p < 0.1$), “the Italian government should facilitate citizenship acquisition for migrant children” (0.72, $p < 0.05$). Treatment correction of the perceptions about the increase of the share of children with a migration background over the last 25 years did not show any statistically or substantially significant effect across all eight outcomes. This lack of impact is likely due to the fact that participants’ baseline estimates of the demographic trend were already largely accurate, leaving little room for correction and corrective information introduced only minimal updating potential. Figure 5 visualises predictive margins and shows predicted averages for the groups that received different treatments based on estimates in Table 4.

Taken together, the results show that corrections of misperceptions about the current size of the children born in mixed and migrant families produce limited and not homogeneous effect on different dimensions of attitudes towards migrants. We identified that treatment works in the expected direction on the statement related to demographic threat, that “there will be no more Italian children in the future”. Other findings indicate that corrective information about

the share has some impact on underestimators, they reinforce their support for positive domains such as granting citizenship, integration and compensation for reduction of population. This pattern is discussed in previous work documenting attitude reinforcement or backlash following corrective interventions (Guess & Coppock, 2020).

TABLE 4 EFFECTS OF INFORMATION ON ATTITUDES TOWARDS MIGRANTS, AVERAGE TREATMENT EFFECT

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
	Migrants are cultural threat	Migrant children have no integration issues	Migrant children. compensate decline in population	There will be no more Italian children.	Migrant children will take jobs from Italians	Migrants are welfare burden	Migrant children contribute to crime	Facilitate citizenship for migrant children	
<i>Treatment groups</i>									
1, treatment low	Share too	-0.09	0.58*	0.59*	0.11	0.08	-0.33	0.06	0.72**
		(0.34)	(0.32)	(0.32)	(0.34)	(0.33)	(0.34)	(0.33)	(0.34)
2, treatment accurate	Share is	0.66*	0.10	0.05	0.33	0.35	0.75**	1.16***	-0.33
		(0.34)	(0.32)	(0.32)	(0.33)	(0.33)	(0.33)	(0.33)	(0.34)
3, treatment high	Share too	0.15	-0.14	0.02	-0.29**	0.01	0.06	0.08	-0.12
		(0.15)	(0.14)	(0.14)	(0.15)	(0.14)	(0.14)	(0.14)	(0.15)
4, treatment low	Trend too	0.24	-0.27	-0.06	0.14	0.18	0.13	0.20	-0.04
		(0.19)	(0.18)	(0.18)	(0.18)	(0.18)	(0.18)	(0.18)	(0.18)
5, treatment accurate	Trend is	-0.33	-0.43	0.10	-0.53	0.07	-0.28	-0.23	0.75**
		(0.38)	(0.36)	(0.36)	(0.38)	(0.37)	(0.38)	(0.37)	(0.38)
6, treatment high	Trend too	-0.07	-0.06	0.15	-0.08	0.09	-0.09	-0.08	0.01
		(0.18)	(0.17)	(0.17)	(0.18)	(0.17)	(0.18)	(0.17)	(0.18)
Perceived share of children born last year to one or both foreign parent		0.02***	0.00	-0.00	0.02***	0.01***	0.02***	0.01***	-0.00
		(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Perceived share of migrant children born		-0.00	0.00	0.01**	0.00	0.01***	0.00	0.01***	-0.00

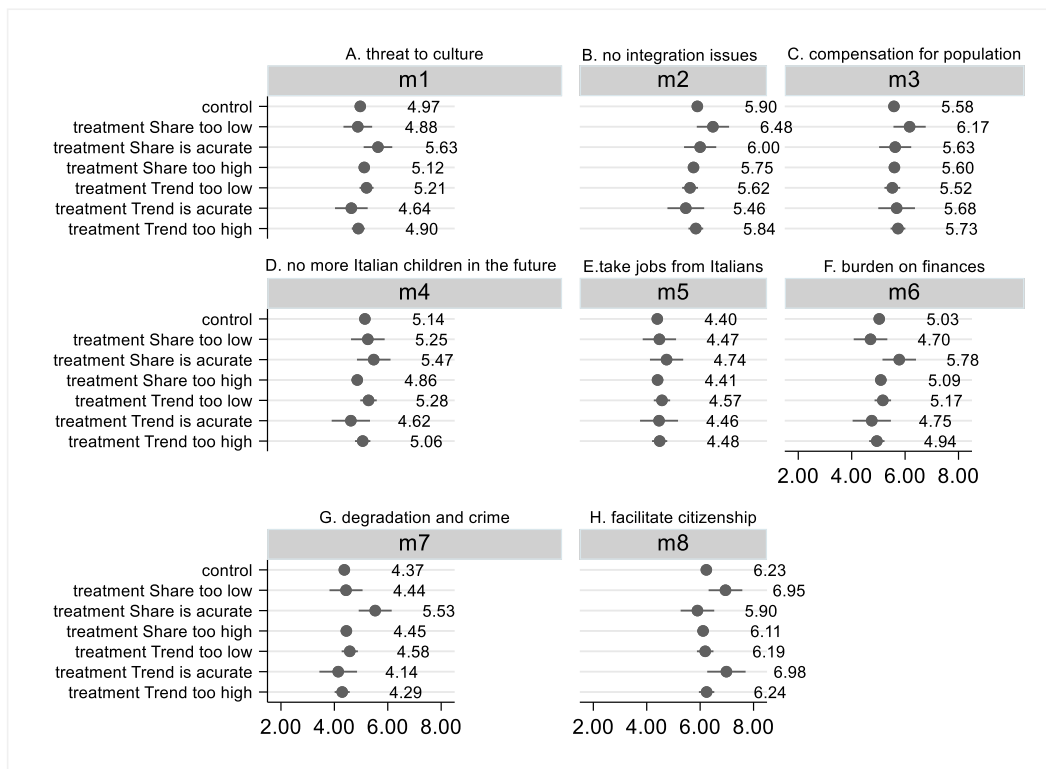
25 years ago

	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Observations	1,996	1,996	1,996	1,996	1,996	1,996	1,996	1,996
R-squared	0.172	0.040	0.094	0.102	0.136	0.157	0.140	0.108

Baseline controls listed in empirical strategy, standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

FIGURE 5. PREDICTIVE MARGINS OF DIFFERENT TREATMENT CONDITIONS ON ATTITUDES TOWARDS MIGRANTS



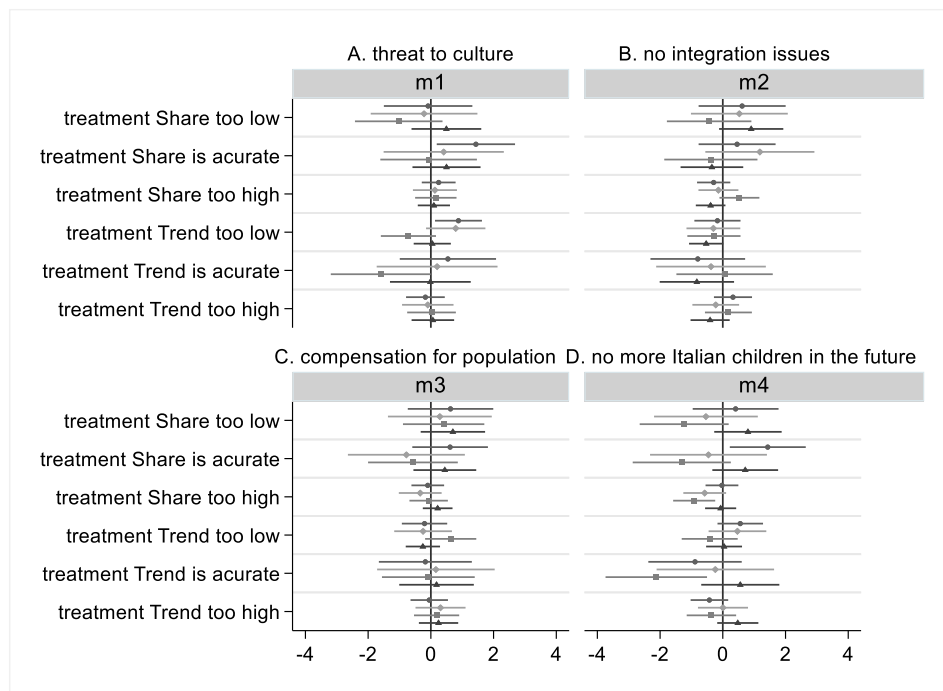
6.3 Heterogeneous effects

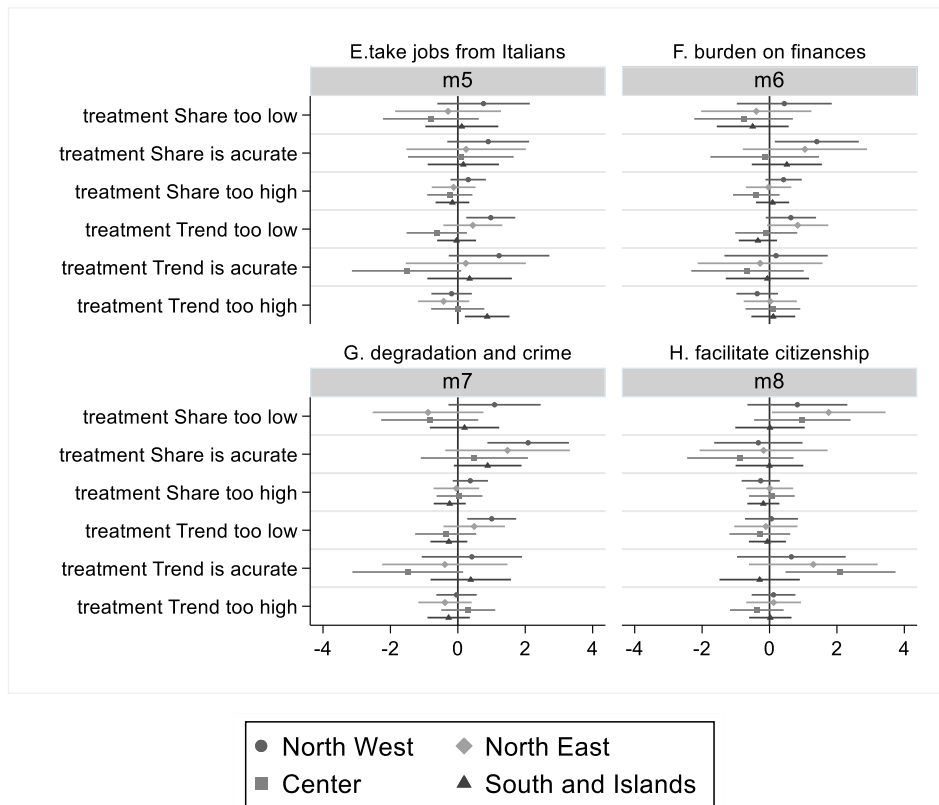
To explore whether the effect of corrective information varies across different subgroups, we examined heterogeneous effects by region, educational level, and political orientation. This provides more nuance to the general results. Overall, the patterns are consistent with the main results: the correction about the share and growth of children born in mixed and migrant families do not systematically shift attitudes towards migrants and their children. However, there are a few exceptions. Certain outcomes show responsiveness in some regions or among some population subgroups, indicating the existence of factors that moderate the effectiveness of corrective information.

6.4 Regional heterogeneity

We first consider heterogeneity across regions and examine whether attitudes in the Northwest, Northeast, Center, and South differ in responsiveness to treatment. Most effects across regions follow the main results. The exception related to demographic-replacement concerns (“there will be no more Italian children in 50 years”), confirming theoretical expectation, found in the main part of the analysis showed a nuanced nature across regions. Among respondents who overestimated the share of children born in mixed and migrant families, the treatment led to reduced agreement with this statement mainly in the Center (-0.88, $p < 0.01$) and Northeast (-0.59, $p < 0.1$), which reflects the main findings. However, in the Northwest and South, this effect is insignificant. It is also interesting to note that underestimation of the size of population of migrant children, when corrected, increases the fear that jobs will be taken from Italians, but only in the North West. Therefore, some effects are context-dependent. Yet, across other attitudinal outcomes, such as perceptions related to cultural and economic concerns, regional differences remain negligible.

FIGURE 6 EFFECTS OF TREATMENT CONDITIONS ACROSS REGIONS

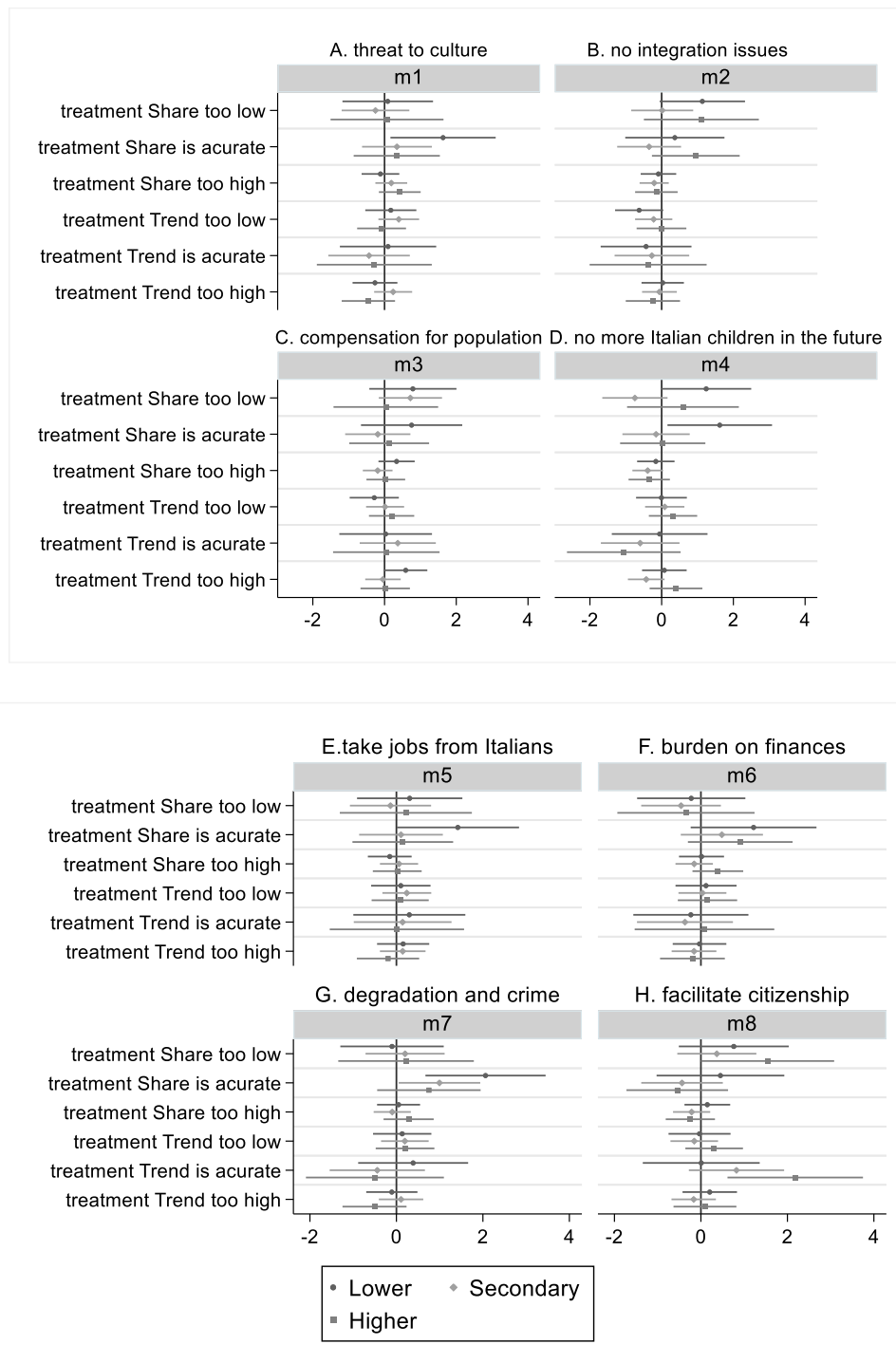




6.5 Heterogeneity across educational levels

Across the eight attitudinal outcomes, none of the low, secondary, or high education groups consistently change their attitudes in response to corrective information about the share or trend of children with a migration background, and there are no significant differences across groups (Figure 7).

FIGURE 7 EFFECTS OF TREATMENT CONDITIONS ACROSS EDUCATION LEVELS

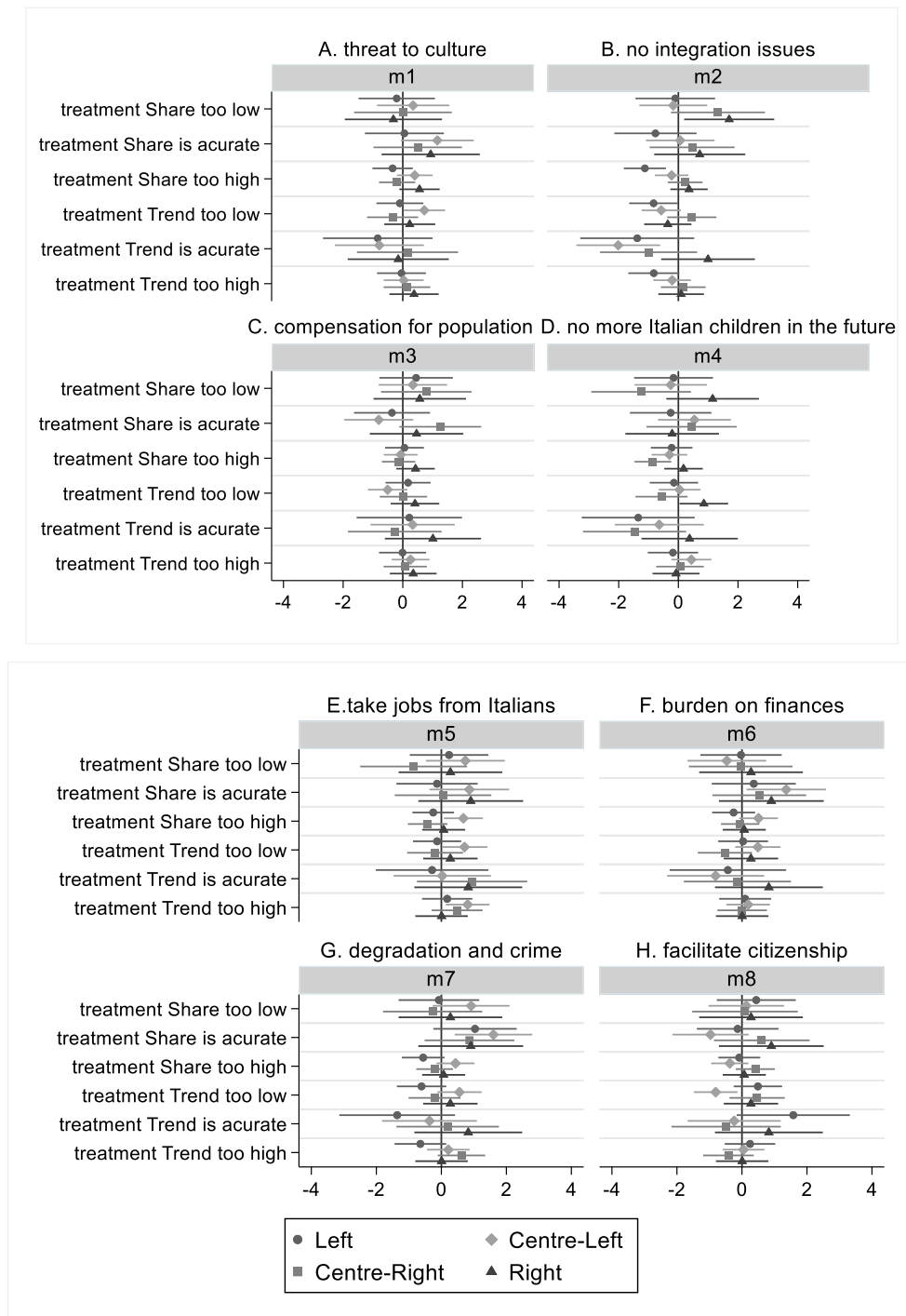


6.6 Heterogeneity across political orientation

Analysis of heterogeneous effects across political orientation likewise reinforces the main conclusion, yet, at the same time, several exceptions emerge. Participants from the left part of the political spectrum reduced their support for the statement that “migrant children contribute to degradation and crime” when they learnt that the share of migrant children is smaller than they thought. Right-wing participants increased support for “migrant children have no

integration issues” when they learned that the share is larger; and they increased support for “there will be no more Italian children in 50 years” when learned that the trend is increasing.

FIGURE 8 EFFECTS OF TREATMENT CONDITIONS ACROSS POLITICAL ORIENTATIONS



7. CONCLUSION

Previous research consistently shows that the share of immigrants in the total population is largely overestimated (Alesina et al., 2023; Citrin & Sides, 2008; Hjerm, 2007; Kunovich, 2017). Such overestimations are associated with overestimated perceptions of threat and, as a result, more negative attitudes towards migrants. Building on these findings, this study examined the theoretically grounded argument that attitudes towards migrants are shaped by perceived realistic and symbolic threats. Drawing on Group Position Theory (Blumer, 1958) and Integrated Threat Theory (Stephan et al., 2008; Stephan & Stephan, 2000b), we expected that individuals who have exaggerated beliefs about the share of children born with a migration background would show more negative attitudes towards migrants and corrective information would improve these perceptions by reducing perceived threat.

To evaluate whether misperceptions reinforce perceived threat and consequently lead to negative attitudes towards migrants, we designed an information treatment that specifically targeted respondents' perceived share of children born to mixed and migrant families and the change of this share over time. The study is on Italy that is increasingly recognized as a migration state.

Our descriptive analysis confirmed that the misperceptions are widespread: participants largely overestimated the share of children born in mixed and migrant families. At the same time, the perception of the change of this share over the last 25 years is closer to actual statistics. Consistent with theoretical expectations, individuals who overestimated the share of children born with a migration background have more negative attitudes across five out of eight outcomes covering cultural, economic, demographic and security-related domains.

Based on competition and threat theories, we expected that correcting these overestimations would reduce threat perceptions and, in turn, promote more favourable attitudes towards migrants. However, our results find limited support for it. Across eight outcomes capturing four dimensions of perceived threat, corrective information produced very few changes in participants' attitudes. In particular, the intervention affected perceptions of demographic threat: respondents in the treatment group who had initially overestimated the share of children with a migration background, once informed that the actual proportion was lower than they believed, expressed reduced agreement with the statement that "there will be no more Italian children in the future." In this case, the informational treatment operated in the expected direction, supporting the proposed theoretical mechanism and demonstrating that corrective information can influence demographic concerns. Yet, a few treatment effects revealed a

tendency to backlash in attitudes. Among those who underestimated the current share of children with a migrant background, corrective information led to increased support for positive statements. In this case, information treatment moved participants to reinforce rather than adjust their support of the idea that “migrant children have no integration issues”, “migrant children compensate for low birth rate among Italians”, and “government needs to facilitate the acquisition of citizenship by migrant children”. Literature indeed finds that backlash occurs in different circumstances when individuals are exposed to counter-intuitive knowledge (Guess & Coppock, 2020). In all other cases, regardless of their prior beliefs, participants did not meaningfully change their attitudes when presented with accurate information. These results align with some other studies that show that individuals do not easily change their attitudes, especially when there is a large level of overestimation (Hopkins, Sides, and Citrin 2019, Alesina, Miano, and Stantcheva 2023).

The analysis of heterogeneous effects reveals some differences across groups. Respondents living in Northern Italian regions are particularly sensitive to economic concerns and to the corrective treatment. Political orientation also moderates the treatment effect: left-leaning individuals who overestimate perceived threats tend to reduce their cultural concerns in response to the intervention more than other groups, while right-leaning respondents are more responsive to information addressing underestimations, such as those related to demographic threats.

Taken together, results demonstrate that correcting factual misperceptions about the migrant population is, in many cases and on average, insufficient to change attitudes towards migrants. The results do not show stable and consistent patterns across all outcomes. This may indicate that perceived threats may be rooted in broader identity commitments and ideological orientations rather than simple numerical misperceptions as also argued by Hopkins et al. (2019). Seemingly, individuals interpret corrective information through the lens of pre-existing worldviews and group-based fears, limiting the potential for attitude updates. However, the only dimension that responds to the corrective information concerns perceptions of the replacement of Italian children by immigrants. This attitude appears to be most strongly linked to perceived threats associated with children from mixed and immigrant families, showing a clear and consistent relationship. By contrast, the size of the child population seems to be perceived as a weaker source of threat across most other dimensions, contrary to perspectives that view children as amplifying long-term fears.

Our findings suggest a potential limitation of informational interventions. Although overestimation about the number of immigrants is widespread and associated with negative

attitudes, correcting these misperceptions and providing accurate numbers is not fully affective for the attitudes towards migrants. In particular, the psychological literature has stressed that individuals are often reluctant to process information that is perceived as too distant from their existing beliefs and tend to disregard disconfirming evidence (confirmation bias). Accordingly, providing information about migration alone is often insufficient to alter peoples' negative attitudes. By contrast, positive narratives that portray immigrants as a benefit to the host society may be more effective in fostering a more favorable attitudes and more supportive behaviors (Cattaneo & Grieco, 2021). Additionally, further research is needed to examine the deeper social mechanisms that sustain perceptions of immigrants as a threat.

8. REFERENCES

- Alba, R., Nee, R. G., & Nee, K. (2005). A Distorted Nation: Perceptions of Racial/Ethnic Group Sizes and Attitudes toward Immigrants and Other Minorities. *Social Forces*, 84(2), 901–919.
- Alesina, A., Ferroni, M. F., & Stantcheva, S. (2021). *Perceptions of Racial Gaps, their Causes, and Ways to Reduce Them* (Working Paper 29245). National Bureau of Economic Research. <https://doi.org/10.3386/w29245>
- Alesina, A., Miano, A., & Stantcheva, S. (2023). Immigration and Redistribution. *The Review of Economic Studies*, 90(1), 1–39. <https://doi.org/10.1093/restud/rdac011>
- Barrera, O., Guriev, S., Henry, E., & Zhuravskaya, E. (2020). Facts, alternative facts, and fact checking in times of post-truth politics. *Journal of Public Economics*, 182, 104123. <https://doi.org/10.1016/j.jpubeco.2019.104123>
- Blalock, H. M. (with Internet Archive). (1967). *Toward a theory of minority-group relations*. New York, Wiley. <http://archive.org/details/towardtheoryofmi00blal>
- Blumer, H. (1958). Race Prejudice as a Sense of Group Position. *The Pacific Sociological Review*, 1(1), 3–7. <https://doi.org/10.2307/1388607>
- Cangiano, A., & Strozza, S. (2008). Foreign immigration in Southern European receiving countries: New evidence from national data sources. In C. Bonifazi, M. Okólski, J. Schoorl, & P. Simon (Eds.), *International Migration in Europe* (pp. 153–178). Amsterdam University Press. <https://www.jstor.org/stable/j.ctt46mv64.11>
- Cattaneo, C., & Grieco, D. (2021). Turning opposition into support to immigration: The role of narratives. *Journal of Economic Behavior & Organization*, 190, 785–801. <https://doi.org/10.1016/j.jebo.2021.08.015>
- Citrin, J., & Sides, J. (2008). Immigration and the Imagined Community in Europe and the United States. *Political Studies*, 56(1), 33–56. <https://doi.org/10.1111/j.1467-9248.2007.00716.x>
- Dylong, P., & Uebelmesser, S. (2024). Biased beliefs about immigration and economic concerns: Evidence from representative experiments. *Journal of Economic Behavior & Organization*, 217, 453–482. <https://doi.org/10.1016/j.jebo.2023.11.017>
- Erdfelder, E., Faul, F., & Buchner, A. (1996). GPOWER: A general power analysis program. *Behavior Research Methods, Instruments, & Computers*, 28(1), 1–11. <https://doi.org/10.3758/BF03203630>
- European Commission. (2018). *Standard Eurobarometer 89. Europeans and the EU budget* (p. 30). doi:10.2775/947049

- European Commission. (2022). *Special Eurobarometer SP519: Integration of Immigrants in the European Union* (p. 4). Directorate-General for Communication. <https://www.integrazionemigranti.gov.it/AnteprimaPDF.aspx?id=3526>
- Glaser, J. M. (1994). Back to the Black Belt: Racial Environment and White Racial Attitudes in the South. *The Journal of Politics*, *56*(1), 21–41. <https://doi.org/10.2307/2132344>
- González-Leonardo, M., Rowe, F., Potančoková, M., & Goujon, A. (2025). Assessing the Differentiated Impacts of COVID-19 on the Immigration Flows to Europe. *International Migration Review*, *59*(4), 2258–2273. <https://doi.org/10.1177/01979183241242445>
- Grigorieff, A., Roth, C., & Ubfal, D. (2016). *Does Information Change Attitudes Towards Immigrants? Representative Evidence from Survey Experiments*.
- Grigorieff, A., Roth, C., & Ubfal, D. (2020). Does Information Change Attitudes Toward Immigrants? *Demography*, *57*(3), 1117–1143.
- Guess, A., & Coppock, A. (2020). Does Counter-Attitudinal Information Cause Backlash? Results from Three Large Survey Experiments. *British Journal of Political Science*, *50*(4), 1497–1515. <https://doi.org/10.1017/S0007123418000327>
- Herda, D. (2013). Too Many Immigrants?: Examining Alternative Forms of Immigrant Population Innumeracy. *Sociological Perspectives*, *56*(2), 213–240. <https://doi.org/10.1525/sop.2013.56.2.213>
- Hjerm, M. (2007). Do Numbers Really Count? Group Threat Theory Revisited. *Journal of Ethnic and Migration Studies*, *33*(8), 1253–1275. <https://doi.org/10.1080/13691830701614056>
- Hopkins, D. J., Sides, J., & Citrin, J. (2019). The Muted Consequences of Correct Information about Immigration. *The Journal of Politics*, *81*(1), 315–320. <https://doi.org/10.1086/699914>
- Istat. (1987). *XXII Censimento generale della popolazione, 25 ottobre 1981, vol. VI, Atti del censimento*. Istat.
- Istat. (2024). *Dataset: Live births. Data extracted on 21 May 2024 08:38 UTC (GMT) from I.Stat* [Dataset].
- Kulic, N., Griaznova, O., Clerici, E., Bellani, D., Mantovani, D., Vergolini, L., & Scervini, F. (2025). A comprehensive overview of a large-scale survey on inequality perceptions (IneqPer) in Italy. *Frontiers in Sociology*, *10*. <https://doi.org/10.3389/fsoc.2025.1620096>

- Kunovich, R. M. (2017). Perceptions of Racial Group Size in a Minority-majority Area. *Sociological Perspectives*, 60(3), 479–496. <https://doi.org/10.1177/0731121416675869>
- Matera, C., Stefanile, C., & Brown, R. (2015). Majority–minority acculturation preferences concordance as an antecedent of attitudes towards immigrants: The mediating role of perceived symbolic threat and metastereotypes. *International Journal of Intercultural Relations*, 45, 96–103. <https://doi.org/10.1016/j.ijintrel.2015.02.001>
- Nese, A. (2023). Migrations in Italy and Perceptions of Ethnic Threat. *Journal of International Migration and Integration*, 24(3), 939–968. <https://doi.org/10.1007/s12134-022-00985-8>
- OECD. (2025). *Dataset: International Migration Database. Data extracted on 28 Nov 2025 13:35 UTC (GMT) from OECD.Stat [Dataset]*.
- Papademetriou, D., & Banulescu-Bogdan, N. (2016). *Understanding and Addressing Public Anxiety About Immigration (Transatlantic Council Statement)*. Transatlantic Council on Migration. <https://www.migrationpolicy.org/research/understanding-and-addressing-public-anxiety-about-immigration>
- Quillian, L. (1995). Prejudice as a Response to Perceived Group Threat: Population Composition and Anti-Immigrant and Racial Prejudice in Europe. *American Sociological Review*, 60(4), 586–611. <https://doi.org/10.2307/2096296>
- Schlueter, E., & Scheepers, P. (2010). The relationship between outgroup size and anti-outgroup attitudes: A theoretical synthesis and empirical test of group threat- and intergroup contact theory. *Social Science Research*, 39(2), 285–295. <https://doi.org/10.1016/j.ssresearch.2009.07.006>
- Semyonov, M., Raijman, R., & Gorodzeisky, A. (2006). The Rise of Anti-foreigner Sentiment in European Societies, 1988-2000. *American Sociological Review*, 71(3), 426–449. <https://doi.org/10.1177/000312240607100304>
- Stephan, W. G., Renfro, C. L., & Davis, M. D. (2008). The role of threat in intergroup relations. In *Improving intergroup relations: Building on the legacy of Thomas F. Pettigrew* (pp. 55–72). Blackwell Publishing. <https://doi.org/10.1002/9781444303117.ch5>
- Stephan, W. G., & Stephan, C. W. (2000a). An Integrated Threat Theory of Prejudice. In *Reducing Prejudice and Discrimination*. Psychology Press.
- Stephan, W. G., & Stephan, C. W. (2000b). An Integrated Threat Theory of Prejudice. In *Reducing Prejudice and Discrimination*. Psychology Press.
- Stephan, W. G., Ybarra, O., Martinez, C. M., Schwarzwald, J., & Tur-Kaspa, M. (1998). Prejudice toward Immigrants to Spain and Israel: An Integrated Threat Theory

- Analysis. *Journal of Cross-Cultural Psychology*, 29(4), 559–576.
<https://doi.org/10.1177/0022022198294004>
- Stephan, W. G., Ybarra, O., & Morrison, K. R. (2009). Intergroup threat theory. In *Handbook of prejudice, stereotyping, and discrimination* (pp. 43–59). Psychology Press.
<https://doi.org/10.4324/9781841697772>
- Stephan, W. G., Ybarra, O., & Rios, K. (2016). Intergroup threat theory. In *Handbook of prejudice, stereotyping, and discrimination, 2nd ed* (pp. 255–278). Psychology Press.
<https://doi.org/10.4324/9781841697772>
- Taylor, M. C. (1998). How White Attitudes Vary with the Racial Composition of Local Populations: Numbers Count. *American Sociological Review*, 63(4), 512–535.
<https://doi.org/10.2307/2657265>
- Valle, M. H. L., Licari, F., D’Orto, M. S., & Reynaud, C. (2023). Internal and international migration from Italian regions: Old and new disparities. *Rivista Italiana Di Economia Demografia e Statistica*, 125–136.

ONLINE APPENDIX

FIGURE A 1 INFORMATION TREATMENT 1 “SHARE”

“You estimated that X% [show answer in the question about perceived share] of children were born to parents where at least one parent is not Italian. According to Istat, this figure in 2022, the most recent available year, is 21%. Your estimate of [number in the question about tperceived share] was therefore [show text “too low” if Number < 19 // show text “fairly accurate” if Number >= 19 and <= 23 // show text “too high” if Number > 23].

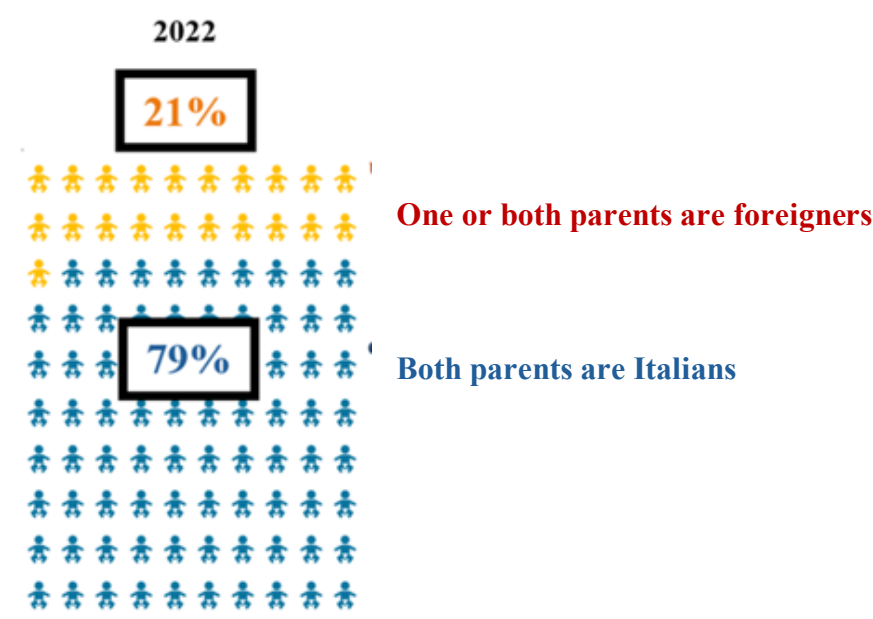
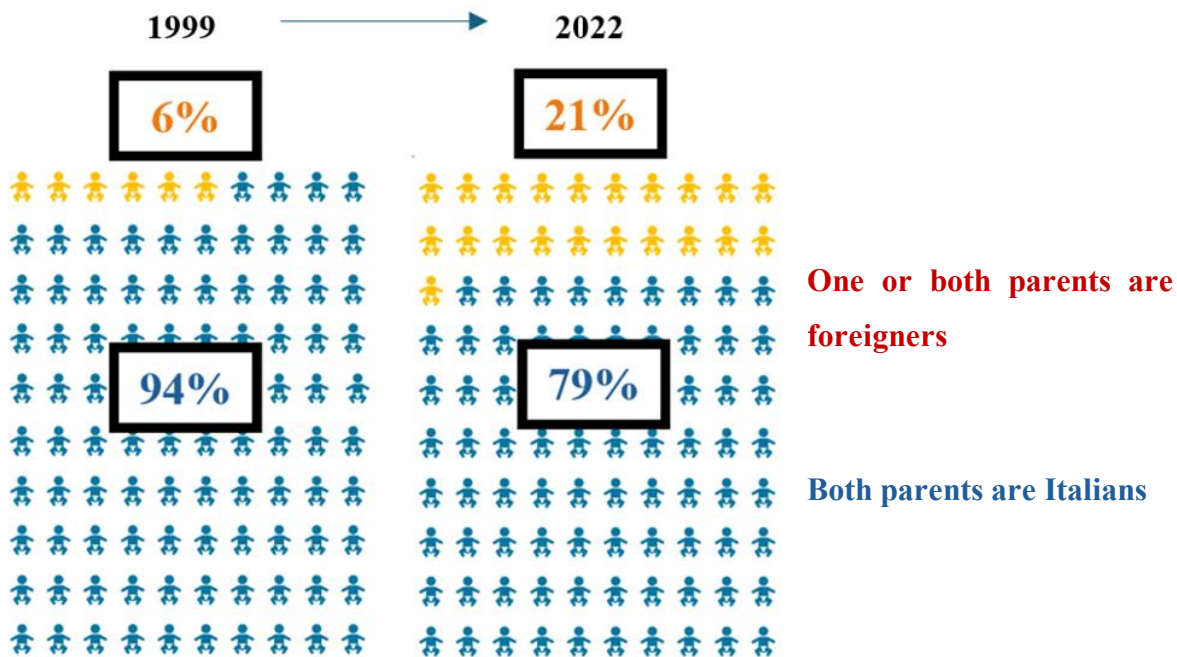


FIGURE A 2 INFORMATION TREATMENT 2 "TREND"

“Based on your previous answers, do you think the change in the percentage of children born to parents where at least one parent is not Italian is [Show answer in the question about perceived share in 2023 MINUS Answer in the question about perceived share in 1999]? According to Istat, the increase in the number of children born to families where one or both parents are foreign in 2022, the most recent available year, is 15 percentage points. Your estimate of [Show Answer in the question about perceived share in 2022 MINUS Answer in the question about perceived share in 1999] was therefore [show text “too low” if the calculation is < 13 // show text “fairly accurate” if the calculation is between 13 and 17 // show text “too high” if the calculation is > 17].”



REGRESSION TABLES

TABLE A. 1 CORRELATES OF MISPERCEPTIONS OF SHARE AND TREND OF IMMIGRANT CHILDREN, OLS REGRESSION COEFFICIENTS (FOR FIGURE 4)

VARIABLES	(1) share	(2) trend
<i>Sex, man is a reference category</i>		
1, Woman	4.26*** (1.057)	1.44 (1.041)
<i>Age, 18-24 is a reference category</i>		
2, 25-34	-0.27 (2.080)	4.26** (2.042)
3, 35-44	-2.02 (2.134)	5.87*** (2.007)
4, 45-54	-2.67 (2.097)	7.60*** (1.987)
5, 55-64	-6.90*** (2.107)	8.26*** (2.015)
6, 65-70	-9.13*** (2.373)	4.42* (2.501)
<i>Education primary is a reference category</i>		
2, Secondary	-1.63 (1.255)	0.82 (1.157)
3, High	-0.79 (1.528)	-2.85** (1.399)
<i>Employment status, employed is a reference category</i>		
2, Unemployed	-2.69 (1.910)	-1.21 (1.951)
3, Inactive	0.46 (1.362)	1.55 (1.250)
9, Other	0.14 (3.375)	3.70 (3.148)
<i>Income quintiles, 1st is a reference category</i>		
2	-4.07** (1.607)	1.03 (1.647)
3	-4.00** (1.665)	-0.75 (1.549)
4	-6.93*** (1.719)	1.88 (1.636)
5	-9.24*** (1.825)	1.77 (1.763)
<i>Children in the household, 0 is a reference category</i>		
1, Yes	3.62*** (1.153)	-1.21 (1.087)
<i>Migration background, natives is a reference category</i>		
1, 1st generation	1.02 (2.270)	0.90 (2.528)
2, 2nd generation	2.17 (2.355)	-0.59 (2.033)
<i>Political orientation, left is a reference category</i>		
2, Centre-Left	0.37 (1.567)	-0.65 (1.477)
3, Centre-Right	4.62*** (1.663)	-0.88 (1.593)
4, Right	4.25*** (1.606)	-0.86 (1.514)
5, Missing	3.14* (1.678)	1.62 (1.672)

Regions, North West is a reference category

2, North East	0.16 (1.532)	-2.37 (1.555)
3, Center	-1.48 (1.494)	-2.37 (1.496)
4, South and Islands	-5.39*** (1.332)	-7.79*** (1.239)
Constant	31.57*** (2.768)	-0.39 (2.730)
Observations	1,996	1,996
R-squared	0.076	0.046

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

FIGURE A 3. EFFECT OF PERCEIVED SHARE OF CHILDREN OF IMMIGRANTS AND FOREIGNERS ON ATTITUDES TOWARDS MIGRANTS

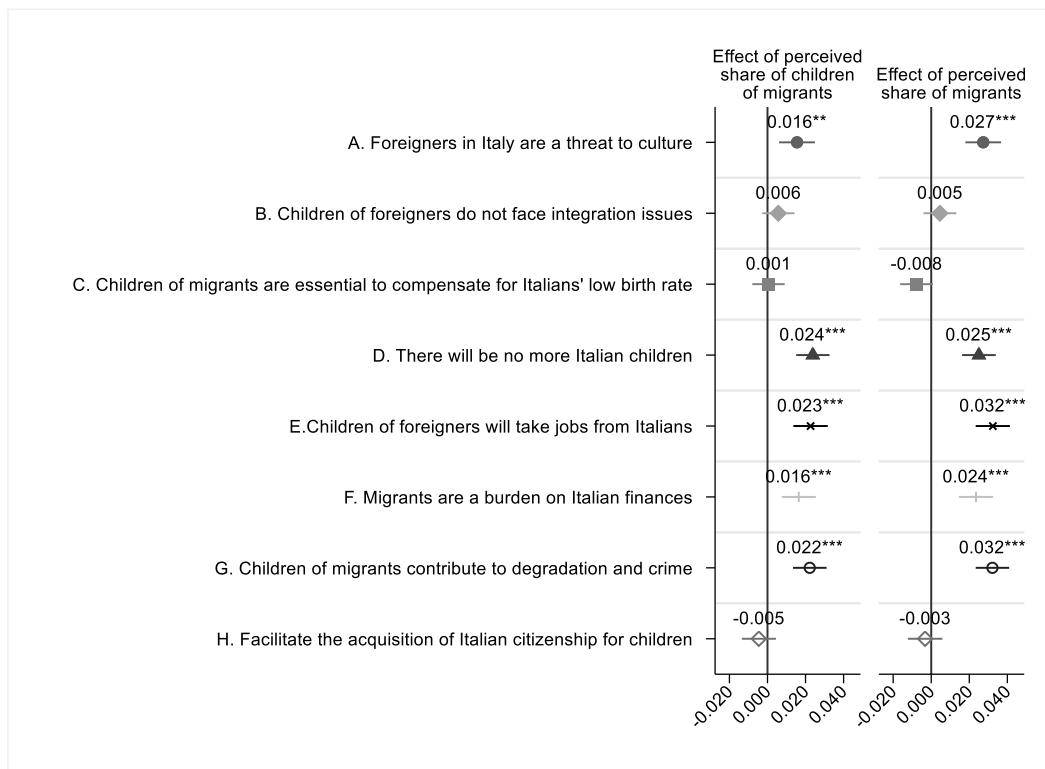


TABLE A. 2 EFFECT OF PERCEIVED SHARE OF CHILDREN BORN IN MIXED AND MIGRANT FAMILIES ON ATTITUDES TOWARDS MIGRANTS:

- (1)“Migrants are cultural threat”
- (2)“Migrant children have no integration issues”
- (3)“Migrant children compensate decline in population”
- (4)“There will be no more Italian children”
- (5)“Migrant children will take jobs from Italians”
- (6)“Migrants are welfare burden”
- (7)“Migrant children contribute to crime”
- (8)“Facilitate citizenship for migrant children”

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
M4. Perceived share of children born last year to one or both foreign parents	0.02*** (0.00)	0.01 (0.00)	0.00 (0.00)	0.02*** (0.00)	0.02*** (0.00)	0.02*** (0.00)	0.02*** (0.00)	-0.00 (0.00)
Sex, man is a reference category								
1, Woman	-0.22 (0.22)	-0.34* (0.20)	-0.11 (0.20)	-0.57*** (0.20)	-0.40* (0.21)	-0.01 (0.21)	-0.43** (0.20)	0.30 (0.21)
Age, 18-24 is a reference category								
2, 25-34	-0.35 (0.44)	0.41 (0.39)	0.01 (0.40)	0.25 (0.41)	-0.28 (0.42)	0.26 (0.42)	-0.04 (0.41)	-0.22 (0.42)
3, 35-44	-0.08 (0.44)	0.28 (0.39)	0.03 (0.40)	0.26 (0.41)	-0.51 (0.42)	0.51 (0.42)	-0.37 (0.41)	-0.49 (0.42)
4, 45-54	0.32 (0.42)	0.72* (0.38)	0.30 (0.38)	0.63 (0.39)	-0.42 (0.40)	0.66 (0.40)	-0.65 (0.39)	0.14 (0.40)
5, 55-64	0.07 (0.43)	0.89** (0.39)	0.23 (0.39)	0.59 (0.40)	-0.52 (0.41)	0.64 (0.41)	-0.45 (0.40)	-0.06 (0.41)
6, 65-70	0.18 (0.49)	1.17*** (0.44)	0.77* (0.44)	0.20 (0.45)	-0.60 (0.47)	0.55 (0.47)	-0.58 (0.46)	0.30 (0.46)
Education primary is a reference category								
2, Secondary	-0.51** (0.25)	0.10 (0.23)	0.51** (0.23)	0.38 (0.23)	0.11 (0.24)	0.06 (0.24)	-0.14 (0.24)	0.52** (0.24)
3, High	-0.97*** (0.31)	-0.23 (0.28)	0.80*** (0.28)	-0.02 (0.29)	0.14 (0.30)	-0.46 (0.30)	-0.41 (0.29)	0.65** (0.29)
Employment status, employed is a reference category								
2, Unemployed	-1.23*** (0.38)	-0.13 (0.34)	-0.30 (0.34)	-0.06 (0.35)	-0.65* (0.36)	-0.71* (0.36)	-1.56*** (0.36)	0.41 (0.36)
3, Inactive	-0.61** (0.27)	0.18 (0.25)	0.06 (0.25)	0.11 (0.25)	-0.01 (0.26)	-0.39 (0.26)	-0.37 (0.26)	0.36 (0.26)
9, Other	-1.05* (0.60)	0.02 (0.54)	-0.03 (0.54)	-0.86 (0.56)	-0.09 (0.58)	-0.00 (0.57)	-0.43 (0.56)	0.14 (0.57)
Income quintiles, 1st is a reference category								
2	0.22 (0.33)	0.03 (0.30)	0.29 (0.30)	0.48 (0.31)	-0.05 (0.32)	-0.19 (0.32)	-0.43 (0.31)	-0.21 (0.31)
3	0.26 (0.33)	-0.34 (0.30)	0.29 (0.30)	0.41 (0.31)	-0.28 (0.32)	-0.48 (0.32)	-0.58* (0.31)	-0.04 (0.32)
4	-0.07 (0.36)	0.03 (0.33)	0.57* (0.33)	0.24 (0.34)	-0.21 (0.35)	-0.28 (0.35)	-0.39 (0.34)	0.34 (0.35)
5	-0.01 (0.36)	-0.13 (0.32)	0.89*** (0.33)	0.46 (0.33)	-0.40 (0.35)	-0.30 (0.34)	-0.58* (0.34)	0.16 (0.34)
Children in the household, 0 is a reference category								
1	-0.17 (0.23)	0.06 (0.21)	-0.14 (0.21)	-0.33 (0.22)	0.24 (0.22)	-0.12 (0.22)	0.09 (0.22)	-0.19 (0.22)
Migration								

*background, natives is
a reference category*

1, 1st generation	-0.98*	0.90*	2.20***	-0.62	-0.51	-1.34**	-1.08*	1.23**
	(0.59)	(0.53)	(0.53)	(0.55)	(0.57)	(0.56)	(0.56)	(0.56)
2, 2nd generation	-0.57	0.44	-0.48	-0.89**	-0.06	-0.79*	-0.24	-0.18
	(0.48)	(0.43)	(0.43)	(0.44)	(0.46)	(0.46)	(0.45)	(0.46)

*Political orientation,
left is a reference
category*

2, Centre-Left	0.69**	-0.03	-0.36	0.22	0.33	0.76**	0.22	-0.47
	(0.31)	(0.28)	(0.28)	(0.29)	(0.30)	(0.30)	(0.29)	(0.30)
3, Centre-Right	1.62***	-0.59**	-0.58*	0.89***	1.31***	1.72***	0.95***	-1.55***
	(0.33)	(0.30)	(0.30)	(0.30)	(0.32)	(0.31)	(0.31)	(0.31)
4, Right	2.10***	-0.55*	-	0.66**	1.85***	2.20***	1.40***	-1.61***
	(0.32)	(0.29)	1.32***	(0.30)	(0.31)	(0.30)	(0.30)	(0.30)
5, Missing	1.29***	-0.46	-	0.53	1.33***	1.69***	0.69**	-1.41***
	(0.36)	(0.32)	1.15***	(0.33)	(0.34)	(0.34)	(0.33)	(0.34)

*Regions, North West is
a reference category*

2, North East	0.03	0.03	-0.28	0.19	0.16	0.03	0.24	-0.24
	(0.31)	(0.28)	(0.28)	(0.29)	(0.30)	(0.30)	(0.29)	(0.30)
3, Center	0.06	-0.38	-0.72**	0.17	0.06	0.04	0.18	-0.11
	(0.31)	(0.28)	(0.28)	(0.29)	(0.30)	(0.29)	(0.29)	(0.29)
4, South and Islands	0.10	0.16	-0.24	-0.23	0.15	0.06	0.21	0.25
	(0.27)	(0.24)	(0.25)	(0.25)	(0.26)	(0.26)	(0.26)	(0.26)
Constant	3.99***	5.48***	5.55***	3.25***	2.98***	3.18***	3.98***	6.81***
	(0.62)	(0.56)	(0.56)	(0.58)	(0.60)	(0.59)	(0.58)	(0.59)
Observations	665	665	665	665	665	665	665	665
R-squared	0.155	0.055	0.129	0.111	0.133	0.159	0.137	0.126

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

TABLE A. 3 EFFECT OF PERCEIVED SHARE OF FOREIGNERS ON ATTITUDES TOWARDS MIGRANTS:

- (1)“Migrants are cultural threat”
- (2)“Migrant children have no integration issues”
- (3)“Migrant children compensate decline in population”
- (4)“There will be no more Italian children”
- (5)“Migrant children will take jobs from Italians”
- (6)“Migrants are welfare burden”
- (7)“Migrant children contribute to crime”
- (8)“Facilitate citizenship for migrant children”

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
M2. Perceived % of foreigners	0.03***	0.00	-0.01*	0.03***	0.03***	0.02***	0.03***	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)

<i>Sex, man is a reference category</i>								
1, Woman	-0.33 (0.21)	-0.35* (0.20)	-0.07 (0.20)	-0.67*** (0.20)	-0.53** (0.21)	-0.11 (0.21)	-0.56*** (0.20)	0.31 (0.21)
<i>Age, 18-24 is a reference category</i>								
2, 25-34	-0.43 (0.43)	0.40 (0.39)	0.04 (0.39)	0.18 (0.41)	-0.37 (0.41)	0.20 (0.41)	-0.12 (0.40)	-0.21 (0.42)
3, 35-44	0.10 (0.43)	0.30 (0.40)	-0.03 (0.40)	0.41 (0.41)	-0.30 (0.41)	0.66 (0.41)	-0.16 (0.40)	-0.51 (0.42)
4, 45-54	0.59 (0.42)	0.77** (0.38)	0.23 (0.38)	0.86** (0.39)	-0.11 (0.40)	0.88** (0.40)	-0.34 (0.39)	0.11 (0.40)
5, 55-64	0.42 (0.43)	0.93** (0.39)	0.10 (0.39)	0.84** (0.41)	-0.13 (0.41)	0.92** (0.41)	-0.06 (0.40)	-0.08 (0.42)
6, 65-70	0.68 (0.49)	1.22*** (0.45)	0.58 (0.45)	0.56 (0.46)	-0.05 (0.47)	0.95** (0.47)	-0.04 (0.46)	0.27 (0.48)
<i>Education primary is a reference category</i>								
2, Secondary	-0.41 (0.25)	0.11 (0.23)	0.48** (0.23)	0.47** (0.23)	0.22 (0.24)	0.15 (0.24)	-0.03 (0.23)	0.51** (0.24)
3, High	-0.88*** (0.30)	-0.22 (0.28)	0.77*** (0.28)	0.05 (0.29)	0.23 (0.29)	-0.40 (0.29)	-0.32 (0.29)	0.65** (0.29)
<i>Employment status, employed is a reference category</i>								
2, Unemployed	-1.26*** (0.37)	-0.14 (0.34)	-0.31 (0.34)	-0.13 (0.35)	-0.70** (0.36)	-0.74** (0.36)	-1.61*** (0.35)	0.43 (0.36)
3, Inactive	-0.58** (0.27)	0.19 (0.25)	0.05 (0.25)	0.14 (0.25)	0.03 (0.26)	-0.36 (0.26)	-0.33 (0.25)	0.35 (0.26)
9, Other	-0.97 (0.59)	0.02 (0.54)	-0.06 (0.54)	-0.81 (0.56)	0.00 (0.56)	0.06 (0.57)	-0.34 (0.55)	0.14 (0.57)
<i>Income quintiles, 1st is a reference category</i>								
2	0.27 (0.32)	0.02 (0.30)	0.26 (0.30)	0.48 (0.31)	-0.02 (0.31)	-0.16 (0.31)	-0.39 (0.30)	-0.21 (0.31)
3	0.33 (0.33)	-0.34 (0.30)	0.24 (0.30)	0.41 (0.31)	-0.23 (0.32)	-0.44 (0.32)	-0.53* (0.31)	-0.03 (0.32)
4	0.10 (0.36)	0.03 (0.33)	0.48 (0.33)	0.31 (0.34)	-0.05 (0.35)	-0.17 (0.35)	-0.23 (0.34)	0.35 (0.35)
5	0.12 (0.35)	-0.14 (0.32)	0.80** (0.32)	0.47 (0.33)	-0.30 (0.34)	-0.23 (0.34)	-0.47 (0.33)	0.17 (0.34)
<i>Children in the household, 0 is a reference category</i>								
1	-0.29 (0.23)	0.04 (0.21)	-0.10 (0.21)	-0.43** (0.22)	0.10 (0.22)	-0.22 (0.22)	-0.05 (0.21)	-0.18 (0.22)
<i>Migration background, natives is a reference category</i>								
1, 1st generation	-0.84	0.91*	2.14***	-0.53	-0.36	-1.23**	-0.93*	1.23**

	(0.58)	(0.53)	(0.53)	(0.55)	(0.56)	(0.56)	(0.55)	(0.56)
2, 2nd generation	-0.62	0.44	-0.47	-0.92**	-0.11	-0.83*	-0.29	-0.18
	(0.47)	(0.43)	(0.43)	(0.44)	(0.45)	(0.45)	(0.44)	(0.46)
<i>Political orientation, left is a reference category</i>								
2, Centre-Left	0.64**	-0.03	-0.33	0.19	0.28	0.73**	0.16	-0.47
	(0.31)	(0.28)	(0.28)	(0.29)	(0.30)	(0.30)	(0.29)	(0.30)
3, Centre-Right	1.51***	-0.59**	-0.52*	0.85***	1.21***	1.64***	0.85***	-1.55***
	(0.32)	(0.30)	(0.30)	(0.30)	(0.31)	(0.31)	(0.30)	(0.31)
4, Right	1.90***	-0.56*	-1.24***	0.52*	1.63***	2.04***	1.19***	-1.60***
	(0.32)	(0.29)	(0.29)	(0.30)	(0.30)	(0.30)	(0.30)	(0.31)
5, Missing	1.08***	-0.49	-1.08***	0.36	1.10***	1.52***	0.46	-1.40***
	(0.35)	(0.32)	(0.32)	(0.33)	(0.34)	(0.34)	(0.33)	(0.34)
<i>Regions, North West is a reference category</i>								
2, North East	-0.07	0.02	-0.24	0.12	0.05	-0.05	0.13	-0.23
	(0.31)	(0.28)	(0.28)	(0.29)	(0.29)	(0.29)	(0.29)	(0.30)
3, Center	-0.08	-0.41	-0.69**	0.03	-0.11	-0.08	0.02	-0.09
	(0.30)	(0.28)	(0.28)	(0.29)	(0.29)	(0.29)	(0.28)	(0.29)
4, South and Islands	-0.06	0.12	-0.21	-0.41	-0.06	-0.09	0.00	0.28
	(0.27)	(0.25)	(0.25)	(0.25)	(0.26)	(0.26)	(0.25)	(0.26)
Constant	3.56***	5.58***	5.94***	3.38***	2.71***	2.98***	3.69***	6.71***
	(0.59)	(0.55)	(0.55)	(0.56)	(0.57)	(0.57)	(0.56)	(0.58)
Observations	665	665	665	665	665	665	665	665
R-squared	0.183	0.054	0.133	0.114	0.165	0.176	0.171	0.125

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

TABLE A. 4 DIFFERENCE IN ATTITUDES TOWARDS MIGRANTS ACROSS PERCEPTION GROUPS, CONTROL GROUP ONLY

- (1)“Migrants are cultural threat”
- (2)“Migrant children have no integration issues”
- (3)“Migrant children compensate decline in population”
- (4)“There will be no more Italian children”
- (5)“Migrant children will take jobs from Italians”
- (6)“Migrants are welfare burden”
- (7)“Migrant children contribute to crime”
- (8)“Facilitate citizenship for migrant children”

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2, accurate perceivers(+2%)	0.12	0.00	0.69	0.71	0.15	0.07	0.05	-0.14
	(0.53)	(0.47)	(0.47)	(0.49)	(0.51)	(0.50)	(0.50)	(0.50)
3, overestimators	0.50	0.18	-0.08	0.98***	0.85**	0.48	0.85**	-0.27
	(0.38)	(0.34)	(0.34)	(0.36)	(0.37)	(0.36)	(0.36)	(0.36)
<i>Sex, man is a reference category</i>								

1, Woman	-0.23 (0.22)	-0.34* (0.20)	-0.13 (0.20)	-0.60*** (0.21)	-0.41* (0.21)	-0.01 (0.21)	-0.43** (0.21)	0.30 (0.21)
<i>Age, 18-24 is a reference category</i>								
2, 25-34	-0.36 (0.44)	0.41 (0.40)	0.05 (0.39)	0.27 (0.41)	-0.29 (0.43)	0.26 (0.42)	-0.05 (0.42)	-0.22 (0.42)
3, 35-44	-0.07 (0.44)	0.28 (0.39)	-0.00 (0.39)	0.27 (0.41)	-0.49 (0.43)	0.52 (0.42)	-0.34 (0.42)	-0.50 (0.42)
4, 45-54	0.36 (0.42)	0.74* (0.38)	0.27 (0.38)	0.68* (0.40)	-0.36 (0.41)	0.69* (0.41)	-0.58 (0.40)	0.12 (0.40)
5, 55-64	0.01 (0.43)	0.88** (0.39)	0.18 (0.39)	0.52 (0.41)	-0.58 (0.42)	0.58 (0.42)	-0.49 (0.41)	-0.05 (0.41)
6, 65-70	0.12 (0.49)	1.15*** (0.44)	0.68 (0.44)	0.10 (0.46)	-0.66 (0.48)	0.49 (0.47)	-0.63 (0.47)	0.30 (0.47)
<i>Education primary is a reference category</i>								
2, Secondary	-0.50** (0.25)	0.10 (0.23)	0.48** (0.23)	0.38 (0.24)	0.12 (0.25)	0.07 (0.24)	-0.12 (0.24)	0.52** (0.24)
3, High	-0.96*** (0.31)	-0.23 (0.28)	0.78*** (0.28)	-0.01 (0.29)	0.14 (0.30)	-0.46 (0.30)	-0.40 (0.29)	0.65** (0.29)
<i>Employment status, employed is a reference category</i>								
2, Unemployed	-1.27*** (0.38)	-0.14 (0.34)	-0.31 (0.34)	-0.12 (0.36)	-0.71* (0.37)	-0.75** (0.36)	-1.61*** (0.36)	0.42 (0.36)
3, Inactive	-0.61** (0.28)	0.18 (0.25)	0.10 (0.25)	0.14 (0.26)	-0.01 (0.27)	-0.39 (0.27)	-0.37 (0.26)	0.35 (0.26)
9, Other	-1.12* (0.60)	-0.01 (0.54)	-0.04 (0.54)	-0.99* (0.57)	-0.19 (0.58)	-0.07 (0.58)	-0.53 (0.57)	0.17 (0.57)
<i>Income quintiles, 1st is a reference category</i>								
2	0.16 (0.33)	0.01 (0.30)	0.31 (0.30)	0.40 (0.31)	-0.15 (0.32)	-0.26 (0.32)	-0.52* (0.31)	-0.20 (0.31)
3	0.19 (0.34)	-0.36 (0.30)	0.26 (0.30)	0.29 (0.31)	-0.38 (0.32)	-0.56* (0.32)	-0.67** (0.32)	-0.02 (0.32)
4	-0.17 (0.37)	-0.01 (0.33)	0.54* (0.33)	0.07 (0.34)	-0.36 (0.35)	-0.40 (0.35)	-0.54 (0.35)	0.37 (0.35)
5	-0.14 (0.36)	-0.17 (0.32)	0.86*** (0.32)	0.28 (0.34)	-0.57 (0.35)	-0.44 (0.34)	-0.74** (0.34)	0.18 (0.34)
<i>Children in the household, 0 is a reference category</i>								
1	-0.15 (0.23)	0.07 (0.21)	-0.14 (0.21)	-0.30 (0.22)	0.27 (0.23)	-0.10 (0.22)	0.12 (0.22)	-0.19 (0.22)
<i>Migration background, natives is a reference</i>								

<i>category</i>								
1, 1st generation	-1.02*	0.89*	2.15***	-0.70	-0.55	-1.38**	-1.12**	1.24**
	(0.60)	(0.53)	(0.53)	(0.56)	(0.58)	(0.57)	(0.56)	(0.56)
2, 2nd generation	-0.54	0.45	-0.46	-0.82*	-0.01	-0.76*	-0.20	-0.20
	(0.48)	(0.43)	(0.43)	(0.45)	(0.47)	(0.46)	(0.46)	(0.46)
<i>Political orientation, left is a reference category</i>								
2, Centre-Left	0.74**	-0.01	-0.36	0.30	0.40	0.82***	0.29	-0.49
	(0.31)	(0.28)	(0.28)	(0.30)	(0.30)	(0.30)	(0.30)	(0.30)
3, Centre-Right	1.69***	-0.57*	-0.56*	1.00***	1.41***	1.79***	1.05***	-1.57***
	(0.33)	(0.30)	(0.29)	(0.31)	(0.32)	(0.31)	(0.31)	(0.31)
4, Right	2.16***	-0.52*	-1.32***	0.75**	1.94***	2.27***	1.49***	-1.63***
	(0.32)	(0.29)	(0.29)	(0.30)	(0.31)	(0.31)	(0.30)	(0.30)
5, Missing	1.33***	-0.45	-1.15***	0.60*	1.40***	1.73***	0.75**	-1.43***
	(0.36)	(0.32)	(0.32)	(0.34)	(0.35)	(0.34)	(0.34)	(0.34)
<i>Regions, North West is a reference category</i>								
2, North East	0.06	0.04	-0.29	0.23	0.21	0.06	0.29	-0.24
	(0.31)	(0.28)	(0.28)	(0.29)	(0.30)	(0.30)	(0.30)	(0.30)
3, Center	0.05	-0.39	-0.72***	0.16	0.05	0.03	0.17	-0.11
	(0.31)	(0.28)	(0.28)	(0.29)	(0.30)	(0.30)	(0.29)	(0.29)
4, South and Islands	0.08	0.15	-0.26	-0.27	0.12	0.04	0.18	0.25
	(0.27)	(0.25)	(0.24)	(0.26)	(0.26)	(0.26)	(0.26)	(0.26)
Constant	4.35***	5.61***	5.66***	3.58***	3.37***	3.60***	4.35***	6.83***
	(0.68)	(0.61)	(0.61)	(0.64)	(0.66)	(0.65)	(0.64)	(0.64)
Observations	665	665	665	665	665	665	665	665
R-squared	0.144	0.053	0.135	0.082	0.111	0.145	0.117	0.126

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

EFFECT OF TREATMENTS ON ATTITUDES TOWARDS MIGRANTS

For DV 7 groups (pulled control group)

No controls

TABLE A. 5 EFFECT OF TREATMENTS ON ATTITUDES TOWARD MIGRANTS, NO CONTROLS

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	1	2	3	4	5	6	7	8
2, treatment Share too low	-0.750** (0.368)	0.414 (0.322)	0.610* (0.332)	-0.659* (0.348)	-0.627* (0.352)	-0.951*** (0.359)	-0.709** (0.348)	0.764** (0.349)
3, treatment Share is accurate	-0.0143 (0.354)	0.129 (0.310)	0.334 (0.320)	-0.251 (0.335)	-0.256 (0.339)	0.134 (0.346)	0.423 (0.336)	-0.0346 (0.336)
4, treatment Share too high	0.242 (0.159)	-0.119 (0.139)	-0.0115 (0.143)	-0.172 (0.150)	0.0882 (0.152)	0.131 (0.155)	0.153 (0.150)	-0.131 (0.151)
5, treatment Trend too low	0.00170 (0.197)	-0.286* (0.172)	0.134 (0.178)	-0.0629 (0.186)	0.227 (0.188)	-0.0585 (0.192)	0.223 (0.186)	0.0734 (0.187)
6, treatment Trend is accurate	-0.549 (0.416)	-0.364 (0.364)	0.0134 (0.376)	-0.877** (0.393)	-0.149 (0.398)	-0.399 (0.406)	-0.435 (0.394)	0.737* (0.395)
7, treatment Trend too high	0.149 (0.185)	0.000268 (0.162)	0.0695 (0.167)	0.142 (0.174)	0.104 (0.176)	0.0197 (0.180)	-0.0380 (0.175)	-0.0192 (0.175)
Constant	4.983*** (0.106)	5.886*** (0.0925)	5.574*** (0.0955)	5.159*** (0.0999)	4.410*** (0.101)	5.051*** (0.103)	4.392*** (0.100)	6.219*** (0.100)
Observations	1,964	1,964	1,964	1,964	1,964	1,964	1,964	1,964
R-squared	0.005	0.004	0.002	0.006	0.004	0.005	0.006	0.005

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Sex, man is a reference category

Age, 18-24 is a reference category

Education primary is a reference category

Employment status, employed is a reference category

Income quintiles, 1st is a reference category

Children in the household, 0 is a reference category

Migration background, natives is a reference category

Political orientation, left is a reference category

Regions, North West is a reference category

TABLE A. 6 AVERAGE TREATMENT EFFECTS, FULL SPECIFICATION (BASELINE CONTROLS)

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	M. cultural threat	Ch. Integrate	Ch. compensa te decline in	No more it ch.	Ch. Will take jobs	M. are welfare burden	Ch. contribute to crime	Accept ch. as citizens

		populatio n						
1, treatment Share too low	-0.09 (0.34)	0.58* (0.32)	0.59* (0.32)	0.11 (0.34)	0.08 (0.33)	-0.33 (0.34)	0.06 (0.33)	0.72** (0.34)
2, treatment Share is accurate	0.66* (0.34)	0.10 (0.32)	0.05 (0.32)	0.33 (0.33)	0.35 (0.33)	0.75** (0.33)	1.16*** (0.33)	-0.33 (0.34)
3, treatment Share too high	0.15 (0.15)	-0.14 (0.14)	0.02 (0.14)	-0.29** (0.15)	0.01 (0.14)	0.06 (0.14)	0.08 (0.14)	-0.12 (0.15)
4, treatment Trend too low	0.24 (0.19)	-0.27 (0.18)	-0.06 (0.18)	0.14 (0.18)	0.18 (0.18)	0.13 (0.18)	0.20 (0.18)	-0.04 (0.18)
5, treatment Trend is accurate	-0.33 (0.38)	-0.43 (0.36)	0.10 (0.36)	-0.53 (0.38)	0.07 (0.37)	-0.28 (0.38)	-0.23 (0.37)	0.75** (0.38)
6, treatment Trend too high	-0.07 (0.18)	-0.06 (0.17)	0.15 (0.17)	-0.08 (0.18)	0.09 (0.17)	-0.09 (0.18)	-0.08 (0.17)	0.01 (0.18)
M4. Perceived share of children born last year to one or both foreign parent now	0.02*** (0.00)	0.00 (0.00)	-0.00 (0.00)	0.02*** (0.00)	0.01*** (0.00)	0.02*** (0.00)	0.01*** (0.00)	-0.00 (0.00)
Perceived share of foreign children born 25 years ago	-0.00 (0.00)	0.00 (0.00)	0.01** (0.00)	0.00 (0.00)	0.01*** (0.00)	0.00 (0.00)	0.01*** (0.00)	-0.00 (0.00)
Sex, man is a reference category								
1, Woman	-0.14 (0.12)	-0.24** (0.11)	-0.11 (0.11)	-0.02 (0.12)	-0.28** (0.12)	-0.05 (0.12)	-0.40*** (0.12)	0.19 (0.12)
Age, 18-24 is a reference category								
2, 25-34	-0.12 (0.24)	0.52** (0.23)	-0.13 (0.23)	0.10 (0.24)	0.01 (0.24)	0.02 (0.24)	-0.27 (0.23)	-0.03 (0.24)
3, 35-44	0.20 (0.24)	0.71*** (0.23)	0.20 (0.23)	0.40* (0.24)	-0.04 (0.24)	0.22 (0.24)	-0.17 (0.23)	-0.02 (0.24)
4, 45-54	0.32 (0.24)	0.82*** (0.22)	0.52** (0.22)	0.67*** (0.23)	0.13 (0.23)	0.40* (0.23)	-0.41* (0.23)	0.22 (0.23)
5, 55-64	0.38 (0.24)	1.22*** (0.23)	0.59*** (0.23)	1.01*** (0.24)	0.45* (0.23)	0.58** (0.23)	-0.11 (0.23)	0.04 (0.24)
6, 65-70	0.11 (0.27)	1.25*** (0.25)	1.07*** (0.25)	0.62** (0.27)	-0.04 (0.26)	0.32 (0.27)	-0.58** (0.26)	0.35 (0.27)
Education primary is a reference category								
2, Secondary	-0.21 (0.14)	0.13 (0.13)	0.33** (0.13)	0.26* (0.14)	0.15 (0.14)	-0.06 (0.14)	0.03 (0.14)	0.33** (0.14)
3, High	-0.71*** (0.17)	-0.04 (0.16)	0.81*** (0.16)	0.03 (0.17)	0.02 (0.17)	-0.39** (0.17)	-0.20 (0.17)	0.61*** (0.17)
Employment								

<i>status, employed is a reference category</i>								
2, Unemployed	-0.46**	0.08	-0.34*	0.03	-0.29	-0.28	-0.42**	0.35*
	(0.21)	(0.19)	(0.19)	(0.20)	(0.20)	(0.20)	(0.20)	(0.20)
3, Inactive	-0.34**	0.07	-0.14	-0.16	-0.10	-0.32**	-0.12	0.17
	(0.16)	(0.15)	(0.15)	(0.15)	(0.15)	(0.15)	(0.15)	(0.15)
9, Other	-0.80**	0.15	-0.23	-0.66*	0.01	-0.17	-0.44	0.17
	(0.35)	(0.33)	(0.33)	(0.34)	(0.34)	(0.34)	(0.34)	(0.34)
<i>Income quintiles, 1st is a reference category</i>								
2	-0.05	-0.08	-0.06	0.06	-0.13	0.13	-0.16	-0.06
	(0.18)	(0.17)	(0.17)	(0.18)	(0.18)	(0.18)	(0.18)	(0.18)
3	-0.09	-0.19	-0.01	0.07	-0.27	-0.05	-0.19	0.01
	(0.18)	(0.17)	(0.17)	(0.18)	(0.18)	(0.18)	(0.18)	(0.18)
4	-0.21	-0.03	0.05	-0.05	-0.16	0.01	-0.14	0.12
	(0.20)	(0.18)	(0.18)	(0.19)	(0.19)	(0.19)	(0.19)	(0.19)
5	-0.23	0.04	0.37**	-0.01	-0.37*	0.01	-0.20	0.13
	(0.20)	(0.19)	(0.19)	(0.19)	(0.19)	(0.19)	(0.19)	(0.20)
<i>Children in the household, 0 is a reference category</i>								
1	0.02	0.12	0.02	-0.03	0.20	-0.07	-0.00	0.01
	(0.13)	(0.12)	(0.12)	(0.13)	(0.13)	(0.13)	(0.12)	(0.13)
<i>Migration background, natives is a reference category</i>								
1, 1st generation	-0.88***	0.06	0.60**	-0.50*	-0.71***	-1.06***	-0.93***	0.98***
	(0.28)	(0.26)	(0.26)	(0.27)	(0.27)	(0.27)	(0.27)	(0.27)
2, 2nd generation	-0.68**	0.10	-0.11	-1.21***	-0.48*	-1.06***	-0.73***	0.11
	(0.27)	(0.26)	(0.26)	(0.27)	(0.27)	(0.27)	(0.26)	(0.27)
<i>Political orientation, left is a reference category</i>								
2, Centre-Left	1.04***	0.41**	-0.41**	0.41**	0.84***	0.95***	0.74***	-0.80***
	(0.17)	(0.16)	(0.16)	(0.17)	(0.17)	(0.17)	(0.17)	(0.17)
3, Centre-Right	1.82***	0.30*	-0.54***	0.78***	1.35***	1.72***	1.36***	-1.60***
	(0.19)	(0.18)	(0.18)	(0.18)	(0.18)	(0.18)	(0.18)	(0.18)
4, Right	2.58***	0.16	-1.24***	0.96***	1.93***	2.36***	1.96***	-2.01***
	(0.18)	(0.17)	(0.17)	(0.17)	(0.17)	(0.17)	(0.17)	(0.17)
5, Missing	1.37***	0.44**	-1.05***	0.43**	1.04***	1.34***	0.99***	-1.22***
	(0.20)	(0.19)	(0.19)	(0.19)	(0.19)	(0.19)	(0.19)	(0.19)
<i>Regions, North West is a reference category</i>								
2, North East	0.06	0.04	-0.24	0.01	0.02	0.01	0.06	-0.11
	(0.17)	(0.16)	(0.16)	(0.17)	(0.17)	(0.17)	(0.17)	(0.17)
3, Center	-0.18	-0.06	-0.57***	-0.35**	-0.28*	-0.24	-0.09	-0.10
	(0.17)	(0.16)	(0.16)	(0.17)	(0.16)	(0.17)	(0.16)	(0.17)
4, South and Islands	-0.02	0.08	-0.17	-0.18	0.04	-0.06	-0.23	0.25*
	(0.15)	(0.14)	(0.14)	(0.15)	(0.15)	(0.15)	(0.15)	(0.15)
Constant	3.24***	4.55***	5.63***	3.03***	2.45***	3.06***	3.20***	6.73***
	(0.35)	(0.33)	(0.33)	(0.35)	(0.34)	(0.35)	(0.34)	(0.35)

Observations	1,996	1,996	1,996	1,996	1,996	1,996	1,996	1,996
R-squared	0.172	0.040	0.094	0.102	0.136	0.157	0.140	0.108

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1