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

DISCUSSION PAPER SERIES

IZA DP No. 16245

Political Backlash to Refugee Settlement: Cultural and Economic Drivers

Francesco Campo
Sara Giunti
Mariapia Mendola
Giulia Tura

JUNE 2023

I Z A Institute
of Labor Economics

Initiated by Deutsche Post Foundation

DISCUSSION PAPER SERIES

IZA DP No. 16245

Political Backlash to Refugee Settlement: Cultural and Economic Drivers

Francesco Campo
University of Padova

Mariapia Mendola
University of Milan-Bicocca and IZA

Sara Giunti
University of Milan

Giulia Tura
University of Milan-Bicocca

JUNE 2023

ISSN: 2365-9793

IZA – Institute of Labor Economics

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

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

www.iza.org

ABSTRACT

Political Backlash to Refugee Settlement: Cultural and Economic Drivers*

The 2015 refugee crisis in Europe fueled anti-immigration sentiment in receiving areas, with potential unintended consequences for refugee integration. We investigate the heterogeneity of political backlash across Italian municipalities in the aftermath of the crisis and assess the role played by local conditions at the time of refugees' settlement, distinguishing between baseline economic and cultural factors. By leveraging the quasi-random dispersal policy and using causal forests, we find that the impact of refugee exposure on anti-immigration backlash is significantly higher in more affluent areas, with more bonding social capital. The opposite holds in contexts where there is meaningful intergroup contact with former immigrants (e.g mixed marriages). We exploit this pattern of heterogeneity to evaluate a matching model to optimally assign refugees to locations and deliver policy implications for novel refugee resettlement schemes that minimize anti-immigration backlash.

JEL Classification: J15, H53, I38
Keywords: refugee social integration, dispersal policy, political preferences

Corresponding author:
Mariapia Mendola
Department of Economics
Università di Milano Bicocca
Piazza dell'Ateneo Nuovo 1
20126 Milano
Italy
E-mail: mariapia.mendola@unimib.it

* The marriage and population Census data used in this paper have been accessed through the Laboratory for the Analysis of Elementary Data (ADELE) at ISTAT, in compliance with the laws protecting statistical confidentiality and personal data. We are solely responsible for the results and the opinions expressed in this paper, which do not constitute official statistics. We are grateful to Jerome Adda, Joop Adema, Alberto Bisin, Frederic Docquier, Alice Mesnard, Margherita Negri, Paolo Pinotti, Hillel Rapoport, Biagio Speciale, Andreas Steinmayr, Jan Stuhler and Skerdi Zanaj, as well as seminar participants at Paris School of Economics, Siena, Luxemburg, MILLS-Milan, EBRD-King's College Workshop on the Economics and Politics of Migration (Istanbul), IBEO-CRENOS Workshop (Sassari), DIW Workshop on Integration of Refugees (Berlin) and CefES-KOF Conference on European Studies (Zurich) for thoughtful comments and suggestions. We thank Gemma Dipoppa and Paolo Pinotti for sharing data on crime and the Mafia presence with us, and AVIS for releasing registry data on local branches. The usual disclaimer applies.

1 Introduction

The rising inflows of immigrants and refugees, particularly from the Global South, into advanced countries has revealed new social and political concerns, such as populist anti-immigration sentiments traced back to both economic and cultural threats (Hainmueller and Hopkins, 2014; Halla et al., 2017; Guriev and Papaioannou, 2022).

The "European refugee crisis", with its unexpected inflows of more than 1.5 million refugees in 2015 alone, has fueled public hostility and the electoral success of far-right parties advocating stricter immigration policies (e.g., Hangartner et al., 2019; Dustmann et al., 2017; Dinas et al., 2019; Campo et al., 2021).[1] Yet, while refugee migration appears to trigger backlash on average, growing evidence suggests that this effect hides a high degree of heterogeneity across receiving local communities (Damm and Rosholm, 2010; Dustmann et al., 2019; Steinmayr, 2021). For instance, political reactions to refugee exposure appear to be significantly harsher in rural than in urban areas. This spatial variation, though, is not sufficient to understand the underlying mechanisms through which receiving refugees alleviates or amplifies natives' concerns. As a consequence, we know little about how to design inclusive resettlement policies since the receiving areas may significantly affect subsequent refugee integration through the supply or denial of opportunities (Bisin and Tura, 2019; Fouka, 2022). Indeed, from a policy perspective, matching refugees with host communities is crucial in fostering social cohesion.

In this paper, we assess how local conditions at the time of refugees' settlement influence anti-immigration preferences in receiving areas. We identify the causal effects of a wide range of initial local characteristics, including economic factors, social capital, and intergroup interactions. We document contrasting political effects driven by economic and socio-cultural channels. In addition, we build on this pattern of heterogeneity and design a matching model to assign refugees to locations to minimize anti-immigration backlash. Hence, we evaluate counterfactual resettlement schemes and show that optimal resettlement policies induce, on average, a significant reassignment of refugees from wealthy and socially connected locations to less affluent but more culturally integrated local areas. Our results contribute to the policy debate on the management and integration of refugees in host communities.

[1] Between 2014 and 2017, a record 3.5 million refugees applied for asylum in the EU-28 countries (Eurostat, 2020), most fleeing war and terror in Syria and social unrest in North Africa and the Near East (Afghanistan, Iraq, and Yemen). The 2015 arrivals marked the largest annual flow of asylum seekers to Europe since 1985 (Pew Research Center). This crisis has put some EU Member States under severe pressure regarding their national capacities to host and manage asylum seekers in a fully-fledged reception system (UNHCR, 2016). Integrating refugee immigrants is currently a critical political goal in many European countries.

We focus on Italy, one of the countries mostly involved in the European refugee crisis. Between 2014 and 2017, an average of 150,000 people reached the Italian coasts each year via Mediterranean routes (UNHCR, 2018), accounting for about 18 percent of all first-time applicants in the EU-28 (Eurostat, 2020). The refugee crisis represented a sudden shock both in magnitude and ethnic composition. Indeed, new refugee inflows were higher than the average 25,000 yearly applications in the pre-crisis period (see Figure 1), and they came from very different countries and cultural backgrounds compared to former immigration waves in Italy. Hence, in 2014, the Italian Home Office quickly implemented a dispersal policy to geographically spread new refugee reception centers (*Centri di Accoglienza Straordinaria* - CAS) across the country. According to this policy, asylum seekers were relocated across municipalities, without any involvement of local administrations (Chamber of Deputies, 2017). As we discuss later in detail, the implementation of the dispersal policy provides essential advantages for identification purposes in our analysis. Moreover, Italy is a particularly interesting context to identify various underlying mechanisms, since it displays extensive granular-level variation in economic and non-economic factors while presenting homogeneous policies and institutions throughout the country.

We leverage the quasi-random assignment of refugees across municipalities induced by the dispersal policy within a municipality fixed–effects model and estimate local political backlash to refugee exposure (treatment effect) by comparing the electoral support for anti-immigration parties, i.e., the *League* and *Brothers of Italy (BoI)*, in the 2013 and 2018 national elections. Our political outcome is a good proxy for negative attitudes toward immigration. Although these right-wing parties frequently raised the issue of immigration and minority groups, the refugee crisis has made immigration and ethnic diversity even more salient issues in their political agenda. As a validation exercise, we show that voters supporting the *League* and *BoI* display stronger negative attitudes and more stringent behavior toward ethnic diversity compared to voters of other parties along the political spectrum.

We combine unique administrative data on refugee centers opened between 2014 and 2018 with electoral data and with a rich set of pre-crisis municipality-level characteristics compiled using different administrative sources. The assignment of refugees to CAS centers during the crisis depends neither on voters' political preferences nor on other municipality-level shocks that simultaneously affect refugee allocation and voting behavior. We also show that refugee allocation is orthogonal to trajectories in local political preferences for the anti-immigration front before the policy launch. Finally, Section 3 provides evidence that the allocation is exogenous to a wide range of baseline local conditions.

We estimate heterogeneous effects using both linear interaction models and the causal forest algorithm (Athey and Imbens, 2016; Athey et al., 2019), which allows us to capture

the high-dimensional combination of local predictors (Conditional Average Treatment Effect or CATE). Political backlash is highly heterogeneous across receiving municipalities, ranging from 0.02 percentage points (p.p.) in the 5th percentile of the distribution to more than 0.13 p.p. in the bottom 95th percentile. We characterize the heterogeneity of the treatment effects across economic and non-economic local mechanisms. The findings display higher backlash in better-off areas, as measured by income, activity, and employment rate. This result aligns with a 'welfare dependency' argument, such that (richer) natives may be reluctant to support refugees through the general welfare state (Boeri, 2010; Dustmann et al., 2019).

Drawing from the seminal work by Putnam (1993), well-documented literature has pointed out that social capital, conceived in terms of civic engagement and pro-social behavior, fosters mutual support and cooperation within a community (Portes, 2000; Guiso et al., 2008). Nevertheless, by using different proxies for social capital, i.e., referenda turnout rate, blood donation, and volunteering rates, we find that all these measures exacerbate voters' backlash. This evidence contrasts with the common wisdom that communities with dense social ties may find easier to deal with changes arising from immigration and diversity. Instead, our findings align with the *bonding* notion of social capital, identified as the set of exclusive connections formed within a group or a community (Coleman, 1990; Woolcock, 1998; Putnam et al., 2000; Portes, 2000).[2] Indeed, the refugee crisis with its unexpected inflows of culturally diverse asylum seekers increases the salience of cultural-ethnic boundaries. In such a context, *bonding* social capital may reinforce exclusive identities and possibly strengthen out-group antagonism (Satyanath et al., 2017).[3]

We then focus on a complementary dimension of social interactions, i.e., those across groups. More specifically, we identify the role of *meaningful* social interactions across native and former immigrants, defined as *bridging* social capital. We collect various measures for the frequency of positive intergroup contact and integration at the municipality level, i.e., intermarriage rate, naturalization rate, residential integration, and foreign-born elections to

[2]Bonding social capital is, by choice or necessity, inward-looking and tends to reinforce exclusive identities and homogeneous groups (such as clubs) and to create strong in-group loyalty, but possibly also strong out-group antagonism (Onyx and Bullen, 2000). Bridging networks, instead, are outward looking and encompass people across diverse social cleavages, such as civil rights movements, ecumenical religious organizations, and youth service groups. Briefly, bonding social capital is good for "getting by", but bridging social capital is crucial for "getting ahead" (Putnam et al., 2000).

[3]Several contributions have pointed out that social capital contributes to economic development and good institutions (Guiso et al., 2008, 2011; Algan and Cahuc, 2013). Yet, evidence is scarce and mixed about the relationship between social capital, political ideology, and voting. On the one hand, some contributions point out a negative association between voting for populist parties and the strength of civil society both in Europe and the USA (Boeri et al., 2021; Giuliano and Wacziarg, 2020). On the other hand, in the historical context of the Nazi party's rise into power, Satyanath et al. (2017) show that social capital, measured by the density of associations in German towns, stimulated Nazi Party membership and electoral success.

local office. According to the "contact hypothesis", *meaningful* interactions across members of different groups are expected to reduce prejudice and hostility (Allport, 1954). Indeed, we do find that backlash is significantly lower in municipalities with higher *bridging* social capital at baseline. For instance, if the intermarriage rate increases by one standard deviation at the mean, then the effect of a one p.p. increase in the share of assigned refugees reduces the vote share for anti-immigration parties by 0.24 p.p.. These findings, overall, point to the potential for *bridging* social capital to reduce backlash and negative attitudes toward immigrants, suggesting that sustained experience of *meaningful* cross-group interactions mitigates public discontent. On the contrary, we find higher discontent in areas with a higher share of former immigrants. This evidence upholds that pure out–group exposure in the past, without positive intergroup contact with natives, may trigger backlash.

The conclusions above raise concerns about the unintended consequences of refugee dispersal policies in place in many Western countries. The mismatch between refugees and local communities might hamper the long-term integration of minorities. Hence, we propose a matching model to assign refugees to locations, which respond differently to refugee exposure. We exploit heterogeneous estimates of local responses from CATE and evaluate alternative resettlement policies that aim to minimize anti-immigration backlash. We show that these optimal refugee resettlement reforms are welfare-improving and ensure a sizable reduction in backlash compared to the random dispersal policy, ranging from 34 to 120 percent under different capacity constraints. More precisely, the predicted welfare gains grow along with refugee concentration across locations. The reduction in backlash generated under different optimal assignments is driven by both the reallocation of treated municipalities and the different shares of refugees assigned per municipality (both extensive and intensive margin). We quantify and describe the mismatch in refugee assignment and show that optimal policies lead to, on average, a significant reassignment of refugees from rich and socially bonding areas to less affluent but more culturally integrated municipalities. Finally, we perform a counterfactual analysis to quantify the contribution of socio-cultural characteristics, beyond economic factors, to the design of more inclusive resettlement programs. By neglecting the importance of the socio-cultural structure, we show that assignment policies are less effective in mitigating anti-immigration backlash. The welfare inefficiency is amplified under more concentrated redistribution schemes.

This paper adds to the flourishing literature on the political effects of immigration in host countries, showing that exposure to ethnic minorities triggers the electoral success of far-right and anti-immigrant parties (e.g. Barone et al., 2016; Halla et al., 2017; Hangartner et al., 2019; Edo et al., 2019; Alesina and Tabellini, Alesina and Tabellini) and lowers support for redistributive policies (Dahlberg et al., 2012; Alesina et al., 2023). In a companion paper,

Campo et al. (2021) highlight that the increased support for the right-wing anti-immigration parties in Italy is not shaped by actual refugees' economic or fiscal impacts, but it is triggered by political propaganda. Yet, more nuanced evidence is emerging comparing rural and urban areas or locations with different educational composition of residents (e.g., Dustmann et al., 2019; Mayda et al., 2022). Moreover, while transient refugee exposure increases far-right voting, persistent or meaningful contact appears to reduce anti-immigration sentiment (e.g. Steinmayr, 2021; Dinas et al., 2019; Albrecht et al., 2020; Bursztyn et al., 2021; Asimovic et al., 2022).[4]

We complement this literature on refugee immigration in two ways. First, we investigate the role of economic and cultural conditions at baseline in shaping the anti-immigration backlash. Our fine-grained data allow us to compare these underlying mechanisms in a unified framework and natural setting during a salient moment of crisis. Thus, our estimates are able to disentangle the separate contribution of each local mechanism and capture the potential interactions between various predictors. This is especially relevant for different forms of social capital as they are not mutually exclusive, yet may work in opposite directions (Schuller, 2007). Second, we leverage our estimates to evaluate counterfactual resettlement policies, matching refugees to locations. Building on these counterfactual experiments, we can formulate normative conclusions for the design of inclusive resettlement policies.

Relatedly, a large literature has evaluated the implications of local characteristics on refugees' economic integration. Refugees' labor market performance varies significantly along with random exposure to different local conditions in terms of ethnic networks and population density (Edin et al., 2003; Damm, 2009; Martén et al., 2019; Battisti et al., 2022; Eckert et al., 2019; Fasani et al., 2022), economic and education status (Damm and Rosholm, 2010; Godøy, 2017; Ahrens et al., 2023) and hostility toward out-group members (Jaschke et al., 2022). More specifically, several studies examine how policies affect immigrants' convergence to native outcomes in the labor market, i.e., the *demand* side of integration. They question the effectiveness of random policies by simulating alternative reallocation schemes that improve refugees labor market opportunities (Godøy, 2017; Bansak et al., 2018; Andersson and Ehlers, 2020). Our contribution focuses on the *supply* side of integration, as public hostility toward minorities in receiving areas may contribute to sub-optimal integration outcomes (Damm and Rosholm, 2010; Arendt et al., 2022; Fasani et al., 2022). By interpreting the integration process as an equilibrium outcome (Bisin and Tura, 2019; Fouka, 2022), our counterfactual evaluation aims to study, for the first time, the implications of refugee dispersal policies on

[4]Research in social psychology and political science has examined if intergroup contact can reduce prejudice and negative attitudes towards out-group (Paluck et al., 2019; Tropp, 2012; Mousa, 2020). Yet, many of these studies take place in a laboratory (or lab in the field) or rely on surveys.

natives' welcoming of ethnic minorities.[5]

2 Background and Data

In this section, we first describe the refugee-reception system in Italy, before and after the refugee crisis, and the dispersal policy implemented to cope with the unexpected inflows of asylum seekers. We then illustrate the country's political background and evolution in the aftermath of the crisis. Finally, we present granular data on economic and socio-cultural heterogeneity across Italian municipalities. We summarize in Appendix Table A1 the data sources and variable construction employed in our analysis.

2.1 The Refugee Crisis in Italy

2.1.1 Refugee-Reception System: Before and After the Crisis

Figure 1 illustrates the evolution of asylum applications in Italy. After the refugee inflow of 1992, following the dissolution of Yugoslavia, the number of asylum applications remained limited and stable over time, averaging 25,000 applications per year until 2013. Based on this demand, Italy's refugee-reception system has been designed along two different stages until 2013. The preliminary phase of identification and assistance is conducted at main disembarkation sites (hotspots) and governmental reception centers. After identification, a second stage process is carried out by the System for the Protection of Asylum Seekers and Refugees (SPRAR), which began operations in 2002. Funded by the national government, SPRAR reception centers provide language and training courses, psychological care and labor market integration programs. SPRAR reception centers are set up voluntarily by municipality administrators and managed by local authorities on a non-profit basis. Consequently, political orientation of each municipality and its administration capacity affect the limited and uneven distribution of SPRAR centers across the country. In December 2014, only 5 percent of municipalities were hosting a SPRAR center.

Starting from 2014, the Middle East uprising and escalating conflict in Syria led to a rise in asylum seeker inflows to Europe. Figure 1 shows this increasing trend in Italy, with the number of asylum applications exceeding 130.000 in 2017, which represents 18 percent of all first-time applicants in the EU-28 (Eurostat, 2020). During the crisis, refugees reached

[5]The integration process goes through socialization and contact with peers in the neighborhood or receiving area where refugees live upon arrival. Hence, the latter plays a key role in fostering or hindering refugee integration, like attitudes and behavior displayed toward newcomers in receiving areas (Ager and Strang, 2008; Danzer and Yaman, 2013; Johnston and Pattie, 2011).

the Italian borders mainly through the Central Mediterranean Route, escaping from Sub-Saharan African countries (with the most represented origins being Nigeria, Gambia, and Senegal) and from the Middle East and East Asia (mainly from Pakistan and Bangladesh); see Appendix Table A2.[6] In early 2018, refugee inflows started declining following the Italy-Libya Memorandum of Understanding, a financial agreement to clamp down on asylum seekers in exchange for foreign aid financial resources.

Compared to pre-crisis levels, the surge in asylum seekers represented a massive and unexpected demand shock, which the SPRAR system could not absorb. Therefore, in 2014, the government set up a complementary (second stage) reception system following a spatial dispersal policy (see below). These Temporary Reception centers (*Centri di Accoglienza Straordinaria* - CAS), initially created to compensate for the lack of capacity of the SPRAR scheme, quickly replaced SPRAR as the go-to system hosting on average 75–80 percent of asylum seekers in Italy.

Data on refugees redistribution in CAS released from the Home Office do not cover the entire period between 2014 and 2018. Hence, we collected first-hand data, filling formal requests for data access (*Accesso civico generalizzato* - FOIA) to each governmental office (Prefecture) at the provincial level. We create a unique and harmonized dataset tracking the list of CAS opened at the municipality level, their capacities, timelines, and the number of hosted refugees every year from 2014 to 2019.[7] The final sample counts 92 out of 106 Prefectures (provinces), reporting refugee data for 6,965 out of 7,918 Italian municipalities. We provide evidence of the absence of selective attrition in our sample by running balance tests on pre-treatment characteristics. Appendix Table A3 confirms that out-of-sample municipalities in non-responding provinces are not systematically different from in-sample municipalities along economic, demographic, political, or institutional characteristics.

2.1.2 Dispersal Policy

The refugees resettlement across CAS reception centers followed a dispersal policy plan to reduce their concentration in a few locations and share the burden of reception and hospitality across the whole national territory (*Piano Nazionale di Riparto*).[8]

The resettlement scheme is conducted in two steps: first across provinces and second

[6]Immigration in Italy took off in the 1990s and less than a third of all immigrants come from another country within the EU. Non EU origins include Morocco, Tunisia, Ecuador, and Peru among others, see Adda et al. (2020).

[7]The authors conducted the data collection between July 2019 and February 2020 (Campo et al., 2021).

[8]Similar dispersal policies have also been enforced in other European countries (e.g., Sweden, Denmark, Switzerland, and Germany).

across municipalities within province.[9] First, the Home Office centrally redistributes refugees to each province according to the resident population, with an allotment plan of 2.5 refugees per 1,000 inhabitants. Figure 2 plots the number of assigned refugees per province over the pre-policy province population in 2013, uncovering a robust positive correlation. The regression slope is equal to 2.3 (s.e. 0.0001), in line with the allotment plan, with an R–squared equal to 0.85.

In the second step, the allocation of CAS centers within the province is coordinated by Prefectures. Provincial government offices open public bids that are eventually assigned to cooperatives, NGOs, or private operators based on tender cost schemes. Refugees are assigned to different municipalities according to the rushed nature of public procurement bidding. Importantly for our research design, economic operators propose and decide the allocation of CAS centers without consultation with local municipalities. Hence, municipal authorities did not influence the redistribution process in terms of the number and characteristics of assigned refugees and the timing of allocation.[10] In Section 3, we conduct a series of validation tests and provide robust evidence showing that the reallocation scheme implied by the dispersal policy is indeed orthogonal to a broad set of baseline local features.

In our sample, CAS centers hosted 37,000 refugees in 2014 and up to 144,000 in 2017. Figure 3 plots the distribution of the share of refugees across municipalities in these years. The number of municipalities hosting a CAS tripled over time, with the maximum number of CAS centers observed between 2017 and 2018 (at the end of our observation period). Some CAS centers are housed in former group accommodation buildings, but around 85 percent are divided across networks of private apartments (Chamber of Deputies, 2017). Panel A. of Table 1 reports summary statistics. On average, CAS centers host about 20 refugees, with a decreasing capacity over time as long as the dispersal policy has been implemented.[11] Basic services (food and accommodation) are typically provided in CAS centers, with a lack of effort for further integration programs.

[9] In Italy, provinces correspond to NUTS-3 level administrative units, while municipalities correspond to NUTS-5 administrative unit.

[10] Within the terms of the law, procurement calls remain open for 35 days, even less if a case of urgency is made. At the height of the crisis, the vast majority of procurement calls were set up with the competitive open procedure, i.e., any interested operator may submit an offer in response to a summons for bid. Only 2 percent of requests remain unfilled (Campo et al., 2021).

[11] Overall, the share of CAS centers hosting more than 100 refugees corresponds to 3 percent, on average, (and never exceeded 3.5 percent), reflecting the granular dispersion of refugees across municipalities implied by the policy.

2.2 Political Background

Every five years, Italian voters elect the members of the two chambers of the national parliament, i.e., the *Chamber of Deputies* and the *Senate*.[12] We focus on two consecutive parliamentary elections in 2013 and 2018, which, importantly for our design, took place before and after the refugee crisis, respectively. Thus, our outcome of interest measures the change in political preferences for anti-immigration parties at the local level before and after the refugee crisis.

The two main anti-immigration parties are the *League* and the *Brothers of Italy* (*BoI*). The former began its political activity in northern Italy during the early 1990s as a federalist movement, but later adopted a nationalist political agenda (Albertazzi et al., 2018). The latter was created in 2012 following a scission from a center–right national party (PDL) with precise populist radical-right motions.[13]

We gather electoral data from the Italian Home Office reporting the number of votes obtained by each political party and the number of voters per municipality in each national election. Table 1 shows the electoral outcomes for the anti-immigration front in 2013 and 2018. In 2013, immediately before the refugee crisis, the *League* and *BoI* jointly accounted for about 8 percent of votes. The results of the 2018 election marked a moment of stark discontinuity with the previous political arena. The anti-immigration front gained substantial support, reaching 25.5 percent of votes, and took the lead within the center-right area across the country; see Appendix Figure A1. The *5 Stars Movement* (5SM) populist party continued to grow, becoming the most-voted party in both chambers of the national parliament, while the center-left coalition experienced a considerable loss of support.

We identify anti-immigration parties by focusing on the salience of the anti-immigration arguments in political agendas following the Manifesto Project; see Appendix Table A4 (Volkens et al., 2020). This data repository extrapolates election-specific information about parties' positions on various issues, including immigration and multiculturalism. The political agenda of both the *League* and *BoI* include negative references to diversity, aversion to multiculturalism, and support for restrictive immigration policies. These arguments evolved and became more pronounced with the escalation of the refugee crisis, and in 2018, the appeal for cultural homogeneity became a pillar of the *League*'s program. In line with these programmatic items, both parties strongly opposed the reception of immigrants crossing the

[12] All adult Italian citizens over 18 years old are entitled to vote for the election of the members of the Chamber of Deputies, while only those over 25 years of age vote for the Senate.

[13] The anti-immigration front also includes several extreme-right and neo-fascist movements, such as *Casa Pound*, despite their limited electoral impact (around 1 percent of votes overall).

Mediterranean sea, voted against the reform of the Dublin system in the European Parliament, and opposed any attempt to reform the current laws limiting immigration quotas to Italy. Their political propaganda during the 2018 election strongly emphasized the risk of a demographic and cultural change (referring to ethnic substitution) due to immigration, fed a climate of xenophobia and social hostility, and triggered anti-European and anti-globalization sentiments.[14]

Given the salience of the anti-immigration positions and actions of both the *League* and *BoI*, we interpret voters' preferences for these parties as a manifestation of negative attitudes and behavior toward ethnic minorities. We validate our electoral outcome and show that voters supporting anti-immigration parties display stronger negative attitudes and more stringent behavior toward ethnic diversity. We exploit individual-level data from the European Social Survey (ESS) collected in Italy starting from the second half of 2018, right after the national election, providing self-reported voting and political preferences as well as attitudes and behavior against immigration.[15] Descriptively, 80 percent of respondents who voted for anti-immigration parties viewed immigration as bad for the country's economy, and 82 percent believe the presence of immigrants undermines the country's cultural life. Figure 4 shows that individuals who declare to vote for (or be close to) the *League* and *BoI* are more likely to (i) support restrictive immigration policies from different backgrounds and (ii) perceive immigration as bad for the economy and socio-cultural environment. On the contrary, political support for Forza Italia and 5SM, potentially expressing welfare and employment considerations, does not correlate with attitudes and behavior against immigration. The estimates partials out survey year and region fixed effects, and individual characteristics.

2.3 Local Heterogeneity: Economic and Cultural Dimensions

To explore the role of local contextual factors, we complement our data with a rich set of municipal characteristics observed before the refugee policy launch. We consider three different dimensions of the local context. First, we examine standard economic prosperity and human capital measures at the municipality level. Then, we focus on socio-cultural factors, including mainly fine-grained social capital variables. In addition, we distinguish between bonding and bridging social capital by considering, for the latter, variables that proxy for the actual integration of former immigrants and intergroup contact at the municipality level.

[14]See the Hate Barometer collected by Amnesty International Italia during the early 2018 electoral campaign (https://www.amnesty.it/barometro-odio/).

[15]ESS data are representative of voting preferences, with an average vote share for anti-immigration parties of 24 percent compared to 25.5 percent at the national election. Summary statistics are reported in Appendix Table A5.

For each of these dimensions, we consider a broad set of pre–crisis indicators from multiple data sources, as described below.

Panel C of Table 1 summarizes the variables we include in our empirical analysis. On the economic dimension, we resort to aggregate data from the Minister of Finance on taxable gross income earned by residents to compute municipality per-capita income. We also consider several labor market indicators, i.e., employment and activity rates, retrieved from the latest available Census before the refugee crisis (2011). Our sample municipalities have a mean (median) per capita income of 11,652 (12,123) and an average employment rate of 45 percent. We measure human capital from 2011 Census data; the share of the population with tertiary–education is 7.44 percent.

On social capital indicators, we refer to the measures commonly adopted in the literature, i.e., electoral participation in referenda, blood donation, and association density of non-profit organizations (Putnam et al., 2000; Guiso et al., 2004; Cartocci, 2007; Durante et al., 2023).[16] We conceive social capital as the broad set of values and connections that foster cooperation and mutual support within a group. Indeed, frequent interactions among individuals in a group tend to produce a norm of generalized trust and reciprocity (Coleman, 1988, 1990; Putnam et al., 2000; Guiso et al., 2004).

We retrieved data at municipality level on electoral participation in referenda from the Historical Archive of the Ministry of Interior.[17] We observe an average turnout of 49 percent, with high heterogeneity across municipalities. In addition, we use registry data from AVIS, the main blood volunteers association in Italy, to construct an indicator for the presence of an AVIS branch in the municipality; 38 percent of municipalities in our sample have an active AVIS branch at baseline.[18] We also include the percentage of residents volunteering in non-profit institutions (mean 9.2 percent) as a further measure of social capital, exploiting data from the 2011 Census of non-profit institutions.

As for measures of intergroup contact, we construct a set of indicators by using several administrative micro-level data sources from the Italian Statistical Institute (ISTAT, ADELE Laboratory). Our aim is to measure the importance and strength of connections between

[16] Additional survey measures from WVS or ESS are available at the individual level. However, the geographical level of granularity is at the province and not the municipality level, corresponding to the unit of observation of our identification strategy.

[17] We compute the average turnout considering those referenda for which data are available at the municipality level, i.e., 1974, 2009, 2011, 2016 and 2020.

[18] AVIS administration provide us with the list of active branches from 2010 to 2015 (see https://www.avis.it/it). This dummy variable is quite 'broad' as an indicator and it may capture many different local features including municipality size or remoteness. This is to say this variable may have significant measurement error. Yet, a continuous variable for blood donation at municipality level does not exist or is not available.

natives and former immigrants, capturing different degrees of interethnic contact as well as the extent to which immigrants socially integrated in local communities. We exploit registry data on the universe of marriages formed in Italy from 1998 to 2012 to measure the intermarriage rate, i.e., the number of marriages between immigrants and natives over total marriages celebrated from 1998 to 2012 (ISTAT, ADELE Laboratory).

We further use Census division level data from the 2011 census to construct a residential segregation index (Duncan index of immigrants' residential segregation). Using the same source of data we define a naturalization index that measures the share of naturalized immigrants over the total number of immigrants living in Italy since at least 10 years, i.e., those potentially eligible to apply for citizenship.[19] In addition, we include former immigration waves (i.e., share of first and second generation regular immigrants) to describe municipality–level ethnic networks. It is worth noting that, while intermarriage is a well–documented proxy for intergroup relations and acceptance of other groups, former shares of immigrants may also capture 'meaningless' exposure without contact.

Finally, we take advantage of the Local Administrators Registry 2007-2013 to identify those municipalities where at least one foreign-born administrator was elected to the municipality board; 36 percent of our sample municipalities elected at least one foreign-born administrator over the period considered, although only 14 percent elected someone born in non-EU15 countries.

3 Estimation Strategy and Identification

3.1 Estimation

We estimate how local characteristics affect the political response to refugees' exposure with the following fixed effects model:

$$\begin{aligned} Y_{mt} = \alpha + & \beta Share\ of\ Refugees_{mt} + \\ & + \gamma Share\ of\ Refugees_{mt} \times Z_{m0} + \mu_m + \delta_t + \varepsilon_{mt}, \end{aligned} \tag{1}$$

where the outcome variable Y_{mt} represents our backlash measure, i.e., the vote share (over the total number of voters) for anti-immigration parties in municipality m at time t. We observe vote shares at the national elections in 2013 (before refugee-crisis) and in 2018 (after refugee-crisis). Our measure of refugee exposure, $Share\ of\ Refugees_{mt}$, is defined as

[19] We exclude from this computation foreign-born residents who obtained the Italian citizenship through the faster procedure that is accorded to those married to Italian citizens.

the share of refugees assigned to municipality m at time t over the resident population in 2013.[20] Specifically, we consider only refugees hosted by the CAS reception system, which was rapidly created in 2014 as described in Section 2. Therefore our explanatory variable, $Share\ of\ Refugees_{mt}$, takes value zero in the 2013 pre-crisis year in all municipalities m, while it is equal to the sum of the capacity of all CAS centers in a municipality at the end of 2017 (two months before the elections) in the 2018 post-crisis year.[21] We interact our measure of refugees exposure with the vector Z_{m0} of pre-determined characteristics at the local level m at baseline time 0, so before the crisis. To ease interpretation, the variables in Z_{m0} are standardized with mean zero and standard deviation of one.

Estimation (1) includes both municipality and time fixed effects. The former, μ_m, capture time-invariant local observables and unobservables. Importantly, they absorb any static determinant of voting behavior, including the local historical presence of anti-immigration or extreme right parties, cross-sectional variation in the duration of refugee reception, the geographical municipality area, local infrastructure, as well as cultural and social norms. The latter, δ_t, account for common shocks in a given year. ϵ_{mt} is an idiosyncratic error component. Standard errors are clustered at the municipality level.

Finally, the parameter of interest γ, identifies the differential backlash effect by local characteristics at baseline, Z_{m0}. Hence, the anti-immigration political response is different for different values of Z_{m0}, which we measure along both economic and socio-cultural municipal dimensions. The main effect β identifies the unique effect of refugee exposure on the vote share for anti-immigration parties when Z_{m0}=0. Since we consider the assigned rather than the actual number of refugees living in municipality m, our estimated (heterogenous) treatment effects are conservative (intention-to-treat effects).

3.2 Identification strategy

Our identification strategy leverages the quasi-random allocation of refugees induced by the dispersal policy and combines exogenous differences in refugee shares across municipalities within province with local–level differences along multiple socio-cultural factors at baseline, i.e., before receiving refugees. Hence, the identification of γ relies on the exogenous assign-

[20] We have no precise data on refugee administrative registrations. While some municipalities registered CAS refugees among the resident population (generally the rule since it guarantees access to essential health and social services), others did not. Depending on the number of assigned refugees, this registration issue may generate inconsistencies in the population size across municipalities. For this reason, we compute the share of refugees over the total municipal population in 2013, just before the introduction of the CAS system.

[21] As a robustness, we also use the maximum share of asylum seekers hosted at any point in time between 2014 and 2017 as our endline observation. Results are qualitatively the same (available upon request).

ment of refugees across municipalities within province, interacted with initial pre-determined characteristics. In what follows we provide various pieces of evidence in support of our identification.

3.2.1 Balance tests

As a randomization check, we test for baseline statistical balance in the allocation of refugees across municipalities, i.e., we assess that all baseline municipality-level characteristics (described in Section 3.3) are not systematically correlated with the assigned share of refugees (treatment variable). Table 2 reports balance tests, where each row represents the outcome from the univariate cross-sectional regression of each local pre-treatment variable on the share of refugees. We adjust p-values for multiple hypothesis testing and asymptotically control for Family-wise Error Rate (FWER) by group of variables.

Overall we show the absence of a systematic correlation between refugee exposure and electoral and local institutional outcomes, as well as economic and socio-cultural local characteristics in the pre-treatment period. More in detail, Panel A of Table 2 shows that national electoral outcomes in 2013, both for the Chamber of Deputies and the Senate, are not predictive of refugee assignment. Another potential concern is that refugees might be differently assigned across municipalities depending on local institutional differences. We provide evidence that this is not the case. Panel B of Table 2 shows that refugee exposure is, first of all, unrelated to the presence of a SPRAR reception center in the municipality, nor to its capacity, confirming that the two systems are managed by different and independent authorities and respond to different incentive schemes. We also collect data from municipal elections from 2008 and 2012 and show that municipalities that elected a mayor belonging to anti-immigration parties are not systematically different in terms of refugee assignment. Moreover, refugee assignment is orthogonal to the municipality welfare generosity and the quality of local institutions, proxied by an indicator for municipality administrations being under receivership in 2007-13. Eventually, we show that refugee assignment is independent from criminal activity at the local level, and more specifically from Mafia infiltration.[22]

In Panels C to E of Table 2, we report balance tests for the vector of our predetermined local economic and socio-cultural drivers Z_{m0}. Refugee exposure is not significantly correlated with our economic and human capital indicators. The only exceptions are represented

[22]We identify Mafia presence following Dipoppa (2021). The indicator combines three sources of data: the list of goods, properties, and firms seized from Mafias from 1982 to 2013; an indicator for city councils dissolved due to Mafia infiltration from 1991 to 2013; and Mafia-related victims (from VittimeMafia.it). In addition, we measure the intensity of Mafia infiltration as the number of Mafia related criminal episodes occurred from 2004 to 2013 at the local level, following Pinotti (2015) and Alesina et al. (2018).

by the activity rate and the share of the population over 65 years old. These two measures are strongly correlated (with a correlation of about 60 percent) since they both reflect the age structure of the resident population.[23] Statistical imbalance is due to the fact that the Italian population is unevenly distributed across locations by age, i.e., younger residents tend to concentrate in larger urban locations whereas elderly people are randomly dispersed across all areas. Hence, refugees' random assignment induced by the dispersal policy mechanically mirrors the residential dispersion of elderly people. Importantly for our context of analysis, even if the opportunity cost of hosting refugees might differ across locations, we show that refugee assignment is orthogonal to rent prices (per sqm) (Panel C Table 2). We also find no correlation with either social capital or intergroup contact indicators, with the only exception of the presence of an AVIS branch, hindered by measurement error issues (Panels D and E Table 2).[24]

3.2.2 Time Trends

As a second piece of evidence related to our identification strategy, we show that the allocation of asylum seekers in 2017 is orthogonal to trajectories in local political preferences for the anti-immigration front before the policy launch. Specifically, we consider political elections in 2001, 2006, 2009, and 2013 and we estimate a fully flexible difference-in-difference model by augmenting equation 1 with time-varying interaction coefficients β_t. It is worth noting that the anti-immigration front evolved remarkably over this period. For example, *BoI*, which did not exist until 2012, emerged and gained consensus quickly, while others disappeared from the political arena. First, we consider the vote shares obtained by those parties that presented anti-immigration stances in each election. Then, we test for parallel pre-trends for the *League*, the only party existing throughout the period. Table 3 shows that the share of assigned refugees in 2017 is not significantly associated with pre-trends in votes for either the anti-immigration front (column 1) or the *League* (column 2).

[23]The activity rate is computed as the share of individuals over 15 years old who are either working or actively looking for a job. Thus, municipalities with a higher fraction of elderly population report lower activity rates.

[24]As mentioned in Section 2.3, we measure municipal blood donation with an indicator for local AVIS branch supply. Therefore this dummy variable is quite 'broad' as an indicator and it may capture many different local features including municipality size or remoteness. For this reason, related to measurement error, we may observe some unbalance in the share of refugees across AVIS-flagged municipalities. A continuous variable for blood donation at municipality level is not available.

3.2.3 Placebo regressions

To further support the validity of our identification strategy, we run placebo regressions. Specifically, we construct a counterfactual scenario by randomly reassigning the share of refugees across municipalities within the same province. We replicate this counterfactual random assignment exercise for thousand times and, with each replication, we estimate the backlash effect of refugee exposure with equation (1). We report the distribution of placebo effects of refugee exposure in Figure 5 (panel A). As expected, the average exposure effect is centered around zero, with mean 0.01 and a rejection rate of 12 percent. In Figure 5 (panel B), we propose a similar counterfactual exercise where we randomly redistribute the absolute number of refugees and calculate the exposure based on the local population. In this case, again, the average exposure effect is centered around zero with mean 0.02.

4 Results

We report estimates of equation (1) in Figure 6 and in Table A6-A8 in Appendix, where column (1) reports the impact of refugee assignment on vote share for anti-immigration parties, while columns (2) and (3) show results for the *League* and *BoI* in turn. Treatment effects are expressed in terms of relative differences from the baseline outcome in the pre-crisis period.[25]

In the first panel in Figure 6, we report interaction effects of our measure of refugee exposure with a set of economic baseline characteristics at municipality level, Z_{m0}, i.e., income per capita, activity rate, employment rate and an index combining these measures. We find that while an increase in the share of refugees increases vote shares for anti-immigration parties, this effect is significantly larger in economically better-off municipalities. Specifically, when the (log) income per capita increases by one standard deviation at the mean, the effect of one p.p. increase in the share of assigned refugees shifts from 0.16 to 0.97 p.p. (see Appendix Table A6). This effect is statistically significant and non-negligible in magnitude as it approximately amounts to 10 percent of the average vote share for anti-immigration parties in the 2013 pre-crisis election. We document a similar pattern while testing the heterogeneity of the treatment effect across other local economic factors. This supports the welfare dependency argument, whereby (richer) natives may be particularly adverse to support refugees through the general welfare state (Dustmann et al., 2019; Boeri, 2010). This evidence is also in line with negative observed effects of refugee exposure on redistribution, especially among

[25] Appendix Figure A2 shows estimates for national elections for Senate, reporting similar results despite involving a selected and slightly older electoral pool (adults above 25 years old).

high-income individuals (Dahlberg et al., 2012; Alesina et al., 2023). Overall, variation in political responses to refugee exposure is driven by a significant change in the share of votes for *League*, while the change in vote share for *BoI* is orthogonal to local economic characteristics.[26] We investigate additional socio-demographic determinants regarding population size, age structure, and local educational standing in Appendix Table A7. Results show that a higher population size as well as a higher share of tertiary educated municipality-residents significantly lower the impact of refugee exposure on vote share for anti-immigration parties.

Next, we explore the heterogeneity in anti-immigration political responses to social capital (second Panel in Figure 6). We find that also social capital significantly exacerbate political backlash to refugee migration (see Appendix Table A8). One standard deviation shift at the mean of the turnout rate at referenda increases the effect of one p.p. increase in the share of refugees from 0.06 to 0.38 p.p., about 4 percent of the average vote share for anti-immigration parties at baseline. Results are consistent considering additional measures of social capital commonly adopted in the literature, such as the number of volunteers belonging to non-profit organizations and the presence of a blood donation center in the municipality (AVIS branch). In this latter case, political responses are similar in magnitude but more noisy for measurement issues we discussed above. Finally, we combine these different measures of social capital into a principal component index and results using this synthetic indicator are in line with our main conclusion. The evidence suggests that standard measures of social capital proxy for within-group connections, which may be inward-looking and create strong in-group loyalty (Putnam et al., 2000; Portes, 2000). Thus, in contexts characterized by marked cultural-ethnic boundaries, *bonding social capital* reinforces exclusive identities and possibly out-group antagonism (see also Satyanath et al., 2017). The unexpected surge in refugee inflows during the crisis, coupled with administrative hardships and fierce propaganda against immigration, makes cultural-ethnic boundaries more salient and exacerbates the ingroup/outgroup distinction.[27]

Finally, we explore the heterogeneity in anti-immigration political responses to interethnic

[26]The *League* and *BoI* have very similar programs and target the same electorate. Yet, in 2018, *BoI* got only 4 percent of the votes and run as a junior far–right partner in a conservative coalition with Matteo Salvini's *League*. Hence, the bulk of backlash heterogeneity comes from the *League*, the major right–wing party at that time. Notably, the situation flipped in 2022 when, during new elections, *BoI* drew most if its newly found support from *League* voters and barged into power in coalition with a more depowered *League* party. This suggests that heterogeneity is likely to come from shifting votes rather than hard core identity votes.

[27]Other works have explored the "dark side" of social capital. Satyanath et al. (2017) study the downfall of democracy in interwar Germany and show that areas with denser networks saw a more rapid rise of the Nazi Party. They show that the result that social capital undermined Germany's first democracy and aided the rise of the Nazi movement holds in areas with unstable governments and weak political context; see also Acemoglu et al. (2014).

connections, in line with the 'contact hypothesis', which posits that social interaction between different groups can be pivotal in reducing intergroup bias (Allport, 1954; Mousa, 2020). We exploit various proxies to capture the frequency and strength of interactions between natives and former immigrants, i.e., rates of intermarriage, naturalization, residential integration, and foreign-born candidates elected to local office (see third Panel in Figure 6).

First of all, the backlash effect of refugee migration appears to be significantly higher in municipalities with higher share of former immigrants, representing a long-term exposure to cultural diversity (see also panel B in Appendix Table A9).[28] By contrast, the backlash is significantly lower in municipalities with higher evidence of integration of former immigrants. For instance, if the intermarriage rate increases by one standard deviation at the mean, then the effect of a one p.p. increase in the share of refugees reduces the vote share for anti-immigration parties by 0.24 p.p.. A similar pattern is observed in municipalities with foreign-born elected administrators. Results align with our conclusions when we combine the above measures into a principal component index. Our findings suggest that *bridging social capital* and meaningful intergroup contact between natives and immigrants can mitigate anti-immigration backlash. On the other hand, ethnic exposure *per se*, as measured by the share of immigrants at the local level, does not necessarily entail meaningful cooperation. In line with the contact hypothesis, intergroup interactions under particular conditions of actual integration (e.g., similar status, common goals, and support from social and institutional authorities) can reduce prejudice and negative attitudes toward immigrant minorities.

4.1 Robustness

We run a set of additional estimates to assess the robustness of our findings. We assess our results are not driven by selective attrition in our sample; see Appendix Table A3 and the discussion in Section 2.1.1. Moreover, the results are not driven by selection into voting participation since refugee exposure does not predict the willingness to vote (voter turnout) for either the Chamber of Deputies or the Senate; see Appendix Table A10.

We prove our results being robust to alternative specifications. Appendix Figure A3 shows results remain unchanged when including a time-varying control for the share of population over 65, the only local factor that displays statistical unbalance at baseline. Importantly for our design, findings are robust to excluding municipalities with SPRAR centers; see Appendix Figure A4. In addition, we trim our outcome variable to account for the fact

[28] One standard deviation increase at the mean of the share of immigrants increases the effect of one p.p. increase in the share of refugees from 0.42 to 1 p.p., about 7 percent of the average vote share for anti-immigration parties at baseline.

that the change in vote share for anti-immigration parties is by definition bounded, and may therefore have a different effect on municipalities with strong preferences for anti-immigration parties at baseline, i.e., in the top percentiles of the anti-immigration distribution. Appendix Figure A5 shows that results are robust to excluding the sample above the 90th percentile of the outcome distribution at baseline.

Finally, we investigate the presence of non-linear effects on the vote share of anti-immigration parties with refugee exposure. Appendix Figure A6 presents non-parametric Nadaraya-Watson estimates of a first-difference model, with confidence interval. The estimated effect is flat throughout the refugee share distribution, especially at the bottom of the distribution where the density is the highest. Overall, there is no evidence to support a significant non-linear backlash effect.

4.2 Conditional Average Treatment Effects (CATE)

To conduct consistent heterogeneity analysis for the political response to refugee exposure along all local dimensions, i.e., economic and socio-cultural, we estimate conditional average treatment effects (CATE) across municipalities using causal forest estimators (Athey and Imbens, 2016; Athey and Wager, 2019; Athey et al., 2019). Causal forest is a supervised machine learning technique based on several simulations (trees), which start from randomly–selected training sub-samples and a set of covariates. The algorithm builds each tree by recursively constructing data partitions (leaves) while using as splitting points values of the covariates that maximize treatment effect heterogeneity at each node. Essentially, the algorithm is trained to look for areas in the covariates space where the effect differs the most. Treatment effects are then estimated within each leaf and finally averaged across all trees to yield the estimates of the conditional average treatment effects. Unlike the specification in equation (1), we estimate a first-differences model to partial out municipality fixed effects, hence to computationally speed up the procedure.[29]

Let β_j denote the estimates of the conditional average treatment effects on the change in vote shares for anti-immigration parties for all municipalities j in our sample. Figure 7 plots the distribution of β_j by percentile. Refugee exposure increases anti-immigration backlash

[29]To avoid over-fitting, we adopt the "honest" approach which entails dividing each training sample in two parts: half of the observations are used to grow the tree, i.e., performing the sample splits, while the other half are used to estimate the treatment effect within each leaf. We train the causal forest algorithm to build 100,000 trees and we set to 20 the number of observations in a leaf. The `causal_forest` command of the `R` package `grf` (generalized random forest) has a default value for the minimum leaf size equal to 5 observations. However, because our treatment variable is continuous, we decide to use a substantially higher value of this parameter to improve the precision of our estimates.

in almost all municipalities (98 percent). However, response heterogeneity is sizable ranging from 0.02 p.p. to more than 0.13 p.p. in the 95th percentile of the distribution.

To investigate treatment heterogeneity across baseline characteristics, we separately compare the average value of each characteristic for municipalities below and above the median distribution of predicted treatment effects. Results are reported in Table 4, together with standardized differences in the mean and p-values adjusted for multiple hypothesis testing (List et al., 2019). Overall, the standardized differences are significantly different from zero for all of the baselined characteristics, with the exception of tertiary education rate, suggesting that variation in political responses is explained by observables. Consistently with our previous conclusions, municipalities with an above-median predicted backlash also have higher mean (log) per capita income, employment and activity rate, as well as higher share of population above 65 years old. Moreover, larger municipalities exhibit lower responses, in line with the evidence on rural-urban gap on attitudes toward immigrants (Dustmann et al., 2019). We plot the average predicted effects across deciles of the baseline observables in Figure A7.

The results for social capital provide mixed evidence. On one hand, above-median predicted CATE is associated with higher social capital, i.e., higher referenda turnout rate and higher probability of hosting a blood donor centre. On the other hand, NGO associations density is higher among municipalities with below-median predicted backlash. Interestingly, from Figure A7, the predicted CATE follow a hump-shaped pattern for NGO association density, with the peak at the fourth decile of the distribution. Since association density refers to volunteers from any type of organization, this measure might include an out-group element deriving from previous positive interactions with immigrant minorities. Therefore, while referenda turnout and the presence of blood donor centers strictly capture the within-group or *bonding* component of social capital, association density may also encompass a *bridging* component that entails intergroup synergies and may plausibly attenuate backlash.

Consistently with linear estimates, results in Table 2 show that the share of immigrants at the municipality level exacerbates political backlash to refugee exposure. Conversely, municipalities with below-median CATE display higher residential segregation (23.6 vs. 20), suggesting that mere intergroup spatial contact does not mitigate the anti-immigration backlash. The results for the remaining intergroup contact indicators - interethnic marriages, naturalization rate, and the presence of foreign-born local administrators - indicate that the baseline level of migrant integration attenuates negative political responses.

Finally, Figure 8 shows that the anti-immigration backlash increases significantly with social capital conditional on any income level (panel A). Instead, the backlash varies non-linearly with different measures of socio-cultural integration. In particular, we estimate

higher backlash at the middle of the income distribution in places with poor cultural integration, i.e., with significant exposure to immigration (panel B) or with a limited intermarriage rate (panel C). This evidence suggests that resettlement policies based on economic factors only – as it is the case in most real-world cases – may not take advantage of the interactions with other local characteristics beneficial for refugee inclusion. We delve into the consequences of refugees' mismatch in Section 5 via counterfactual simulations.

5 Resettlement Schemes and Policy Implications

Heterogeneous results discussed so far put into question random dispersal policies that may hamper minorities' integration due to potential mismatch between refugees and receiving areas. In this Section, we propose a matching model to assign refugees to locations, accounting for local differences in backlash. Then, we exploit CATE estimates of local response to evaluate optimal resettlement policies that aim to minimize anti-immigration backlash. Finally, we perform a counterfactual policy evaluation.

5.1 The Assignment Model

Setup. We propose a matching model to assign $i \in I$ refugees to $j \in J$ locations (municipalities), within each province $p \in P$. Refugees are all equal, whereas locations are heterogeneous in their response to refugee exposure β_j, as a result of pre-determined local differences in economic prosperity, as well as social and cultural structure. We estimate β_j in Section 4.2, as the change in the share of votes for anti-immigration parties due to a one percent increase in the share of assigned refugees within each municipality. Supported by validation results on ESS data in Section 2, we interpret this change in voters' preferences for anti-immigration parties as an expression of anti-immigration backlash, that is, a hardening in negative attitudes and behavior towards ethnic minorities induced by refugee exposure.

Matching problem. Given I refugees and J locations, $I \times J$ matches are potentially observed. A *matching* defines who (i) is matched to which location (j). Specifically, a matching is a measure μ_{ij} over the $I \times J$ space, such that $\mu_{ij} = 1$ if refugee i is assigned to location j, and zero otherwise. By considering a many-to-one matching framework, each refugee is assigned to only one location, but many refugees might be assigned to the same location. In this particular context, we assume all refugees entering the host country are assigned to a given location, hence nobody remains unmatched. The matching measure thus

satisfies the following feasibility constraints:

$$\begin{aligned} \sum_{J} \mu_{ij} &= 1 \quad \forall i \in I, \\ \sum_{I} \mu_{ij} &\leq \bar{M}_j \quad \forall j \in J, \end{aligned} \tag{2}$$

where $\bar{M}_j$ (potentially) describes a refugee quota per location j, with $\bar{M}_j \leq I$.

We take a social planner perspective. We assume that the welfare objective is to minimize the probability of failure of resettlement policies, i.e., the *total* anti-immigration backlash for each province. Thus, the objective function is to minimize the sum of the products between the marginal anti-immigration effect of one p.p. increase in the share of assigned refugees, β_j, and the share of refugees assigned to a given location j over the resident population, $\sum_I \mu_{ij}/Pop_j$. We consider the anti-immigration backlash as the best proxy available to opposition to the resettlement program and, ultimately, to refugees' integration. It is worth mentioning that the welfare objective of our analysis does not alter political preferences *per se*, but seeks to minimize the effect on preferences for anti-immigration parties *only due to* refugee assignment.

The *optimal* matching μ_{ij} turns out to be the solution of the following (social) welfare minimization problem over all potential matches:

$$\min_{(\mu_{ij} \geq 0)} \quad \sum_{j \in J} \sum_{i \in I} \frac{\mu_{ij}}{Pop_j} \beta_j \tag{3}$$

subject to feasibility constraints in (2), and possibly diverse capacity constraints. We consider progressively less stringent (exogenous) capacity constraints, imposing for each municipality a limit to the number of assigned refugees equal to i) the observed average share at province level (constant share); ii) the median capacity observed within province; iii) the mean capacity observed within province; iii) the max capacity observed within province; iv) no capacity constraints.

From the problem in (3), some considerations emerge. First, the optimal matching from (3) trade-offs the contribution of two components: i) the local characteristics affecting anti-immigration returns and ii) the size of the resident population in j. For instance, if the anti-immigration responses were homogeneous across municipalities, $\beta_j = \bar{\beta} \quad \forall j$, the model would simply assign refugees to the most populated municipalities within each province. Viceversa, if the anti-immigration responses were independent of the local population, the model would assign refugees to the municipalities within lower marginal anti-immigration return β_j. Second, the response to the marginal refugee exposure is constant within municipality and equal to β_j/Pop_j. Hence, in absence of capacity constraints, the optimal matching

simply assigns all refugees to the municipality with the lowest marginal effect of β_j/Pop_j, within each province of reference.

5.2 Optimal Resettlement Policies

In this Section, we evaluate the random dispersal policy implemented in Italy by confronting it with different counterfactual assignments. In the comparison, we keep the aggregate number of refugees assigned to each province constant, as defined by the policy allotment plan of 2.5 refugees per 1000 inhabitants. We hence evaluate counterfactual assignments of refugees across municipalities within province.

Based on β_j estimates from causal forest analysis, we solve for the optimal matching μ_{ij} in (3) across municipalities in all provinces p, subject to different capacity constraints. Results in Figure 9 report the share of refugees assigned to each location (municipality) under the observed random dispersal policy (panel A) and the optimal assignments (panel B to F). As a result of different capacity constraints, the optimal refugee assignment moves from a scattered and widespread refugee exposure across municipalities to a narrow and targeted allocation, reaching a single municipality assignment per province under the unconstrained optimal assignment. Table 5 reports summary statistics for optimal assignment policies. In order, the optimal assignment under the constant share rule leads to a refugee dispersion of 80 percent, i.e., 80 percent of municipalities receive at least one refugee. The refugee dispersion lowers, on average, to 37 percent under the median capacity policy (in line with the dispersion rate observed under the random dispersal policy of 38 percent) and shrinks to 1 percent under the optimal unconstrained policy.

We report the variation in anti-immigration backlash implied by the optimal assignment policies in Figure 10. Three results emerge. First, regardless of the constraints, all optimal refugee assignments are welfare-improving and guarantee a sizable reduction in anti-immigration backlash compared to the random dispersal policy, ranging from a backlash drop of 34 percent under the constant share policy to a drop of more than 90 percent under the optimal mean capacity reassignment. Second, the anti-immigration backlash even reverts when imposing none or minimal capacity constraints, resulting from a change in pro-immigration attitudes for a non-zero proportion of municipalities throughout Italy. Finally, we provide evidence of a policy trade-off between a reduction in anti-immigration backlash and refugee geographical dispersion, highlighted in the second vertical axis of Figure 10. Indeed, the lower the refugee dispersion, the more effective the policy stems from anti-immigration backlash.

The welfare improvement generated under different optimal policies results from both a change in the intensive and extensive margin of refugee assignment. For instance, we observe

a significant difference in the intensity of refugee exposure for municipalities treated at baseline and, at the same time, a change in refugee assignment across municipalities. Specifically, we quantify the mismatch rate in the assignment as the share of municipalities treated under the random policy that would not have been treated under the optimal allocation and, vice versa, the share of municipalities not treated under the random policy that would have been treated under the optimal allocation. Table 5 reports the results. While under some policy constraints, the degree of refugee dispersion mechanically translates into a high mismatch rate, there are two non-trivial cases worth discussing. The optimal refugee allocation under the median capacity policy, while keeping constant the dispersion rate compared to baseline, implies a mismatch rate of 31 percent, with 15 percent of municipalities becoming treated under the optimal assignment; see panel C of Table 5. Similarly, the optimal refugee allocation with mean capacity constraints implies a mismatch rate of 32 percent, with 29 percent of municipalities that would not have been treated under the optimal allocation.

We investigate the extent to which the change in refugee assignment is correlated to local economic and socio-cultural characteristics. Table 6 reports the results of balance tests for the vector of our predetermined local economic and socio-cultural drivers Z_{m0} on the change in refugee exposure under the optimal constrained policies, conditional on positive treatment. We focus on the two intermediate assignment policies under median and mean capacity constraints. We show that optimal policies induce, on average, a significant re-assignment of refugees from rich and socially connected areas to less affluent but more culturally integrated municipalities.

One might argue that our assumption of a linear backlash effect β_j is restrictive. However, we tested for non-linear responses and provide evidence supporting our model assumption in Section 4.1. The variation in refugee share we can observe in the data might provide limited support for non-linear effects when the assignment implies a high refugee concentration in a few locations. While non-linearity might bias our backlash estimates upward in the extreme case of highly concentrated policies (e.g. in panel F of Figure 9), we show a significant welfare improvement even in the opposite case of highly dispersed policies (e.g. in panel B and C of Figure 9), when non-linearity issues become negligible.

5.3 Counterfactual Resettlement Policies

How important are socio-cultural *vs* economic characteristics for refugee assignment? We provide an answer to this question by investigating a counterfactual policy, which assigns refugees to locations *only* according to economic and population heterogeneity across municipalities. By neglecting the importance of the socio-cultural structure, we show that the

policy is less effective in mitigating anti-immigration backlash.

In many Western countries, refugees have until recently been relocated according to the resident population or, eventually, based on economic characteristics (Hatton, 2013, 2016). The leading example is the proposed reform of the Dublin regulation setting the criteria of refugee assignment across European countries during the refugee crisis based on population, GDP per capita, and unemployment. Similar policies have been enacted to assign refugees within countries based on a quota system according to the resident population, as in Germany, the Netherlands, the UK, Norway, Denmark, and Sweden (Andersson et al., 2018; Dumont et al., 2016). These assignment schemes are designed under the principle of solidarity and fair sharing of responsibility. However, there is no evidence of their longer-run impact on immigration acceptance.

We assess the effect of these assignment schemes, simulating a counterfactual reform where all refugees are assigned based on resident population and economic factors only. Specifically, we estimate conditional average treatment effects across municipalities, as in Section 4.2, accounting for heterogeneity in observed economic drivers (income per capita, employment, and activity rate) and the resident population at baseline. Thus, we obtain a new distribution of β_j^{ec}, i.e., the average predicted treatment effects for all municipalities in the sample. Figure 11 reports the correlation between our main β_j estimates computed conditioning on economic, social capital, and intergroup contact drivers and β_j^{ec} estimates limiting heterogeneity to economic drivers and population only. The correlation is about 0.19, and clearly, there is a high degree of volatility between the two estimates, potentially leading to significant differences in refugee assignment.

Based on β_j^{ec}, we solve for the optimal matching μ_{ij}^{ec} in (3) for all provinces p, subject to the same capacity constraints imposed above. We compare the change in anti-immigration backlash implied by initial assignment policies and counterfactual ones in Figure 12 in turn. We keep as a reference the observed random dispersal policy. On the one hand, counterfactual optimal assignment policies under the β_j^{ec} heterogeneity are improving welfare (right panel), reducing anti-immigration backlash with respect to the random dispersal policy in place. On the other hand, however, this counterfactual policy neglecting the role of the socio-cultural structure is less effective in minimizing anti-immigration preferences. For instance, the differential change in anti-immigration backlash amounts to 13 and 25 percent, under the median and mean capacity constraints. Interestingly, the differential change between the two matching schemes is even amplified under minimal capacity constraints. This result suggests that the mismatch in refugee assignment due to the difference between β_j and $\beta_j^{ec}i$ is more prominent under policy rules leading to a narrow dispersion rate. Thus, while more concentrated policies are more efficient in improving welfare in case of complete information

on the true distribution of treatment effects, at the same time, they are also riskier in case of incomplete information about the relevant dimensions that matter for heterogeneity.

6 Conclusions

Since the peak of the 2015 record of migration inflows to the EU, challenges to reception systems and efficient rules for refugee distribution have surged. Local characteristics of receiving areas, especially welcoming host communities, may significantly impact refugee integration through the supply or denial of opportunities. Clearly, refugee exposure may engender adverse native responses, but whether these adverse effects could be prevented by restructuring the receiving conditions is an open question. Importantly, policymakers cannot optimally evaluate resettlement policies without understanding which local conditions matter for the positive effects of refugee exposure and integration.

This paper investigates the heterogeneity in political response to refugee exposure across Italian municipalities and evaluates counterfactual assignment policies that minimize local backlash. We focus on the recent refugee crisis in Italy (2014-17), during which unexpected inflows of about 150,000 asylum seekers per year from Northern Africa and the Near East fueled native hostility and increased the salience of ethnic boundaries. Within this setting, we harmonize a wide range of administrative data at a granular level and estimate the role of local economic and cultural mechanisms, distinguishing between economic prosperity, social capital, and intergroup interactions. By leveraging the quasi-random assignment of refugees across municipalities, we find that the impact of refugee exposure on anti-immigration backlash is significantly higher in more affluent areas and contexts with more bonding social capital. On the contrary, the anti-immigration political response is mitigated in areas marked by meaningful intergroup contact with former immigrants. Sizable heterogeneity in political responses across municipalities is also estimated via causal forest algorithm, putting into question the effectiveness of random allocation policies in limiting the political costs of refugee reception.

We exploit this pattern of heterogeneity by baseline local-level characteristics to evaluate novel resettlement schemes. We propose a matching model to assign refugees to locations, accounting for local differences in backlash. We show that optimal resettlement schemes are welfare improving. Namely, they significantly reduce anti-immigration backlash compared to the random dispersal policy, subject to different capacity constraints.

Our results suggest that government policies dealing with the management and allocation of refugees need to consider both economic and non-economic local characteristics to foster integration and stem hostility and backlash. Thus, socio-cultural factors may usefully com-

plement traditional dispersal policies based on population size, economic conditions, or social housing availability. This is crucial for policy design for two reasons. First, it seems feasible and desirable to leverage the extant stock of positive cross-cutting contact and bridging social capital to stem backlash and spur the supply of integration opportunities by natives towards refugees. Second, accurately identifying locations where mere refugee exposure triggers backlash can guide targeting programs promoting contact and meaningful interactions (Enos, 2017). Indeed, since these programs require grassroots initiatives that are generally costly and difficult to scale up in large natural contexts, improving the targeting strategy is of fundamental importance (Mousa, 2020).

References

Acemoglu, D., T. Reed, and J. A. Robinson (2014). Chiefs: Economic development and elite control of civil society in sierra leone. *Journal of Political Economy 122*(2), 319–368.

Adda, J., P. Pinotti, and G. Tura (2020). There's More to Marriage than Love: The Effect of Legal Status and Cultural Distance on Intermarriages and Separations. *CEPR Discussion Paper No. DP14432*.

Ager, A. and A. Strang (2008). Understanding Integration: A Conceptual Framework. *Journal of Refugee Studies 21*(2), 166–191.

Ahrens, A., A. Beerli, D. Hangartner, S. Kurer, and M. Siegenthaler (2023). The Labor Market Effects of Restricting Refugees' Employment Opportunities.

Albertazzi, D., A. Giovannini, and A. Seddone (2018). 'No Regionalism Please, We Are Leghisti!'The Transformation of the Italian Lega Nord under the Leadership of Matteo Salvini. *Regional & Federal Studies 28*(5), 645–671.

Albrecht, S., R. Ghidoni, E. Cettolin, and S. Suetens (2020). Exposure to Ethnic Minorities Changes Attitudes to Them. *University of Milan Bicocca Department of Economics, Management and Statistics Working Paper* (449).

Alesina, A., A. Miano, and S. Stantcheva (2023). Immigration and Redistribution. *The Review of Economic Studies 90*(1), 1–39.

Alesina, A., S. Piccolo, and P. Pinotti (2018, 07). Organized Crime, Violence, and Politics. *Review of Economic Studies 86*(2), 457–499.

Alesina, A. and M. Tabellini. The Political Effects of Immigration: Culture or Economics? *Journal of Economic Literature (Forthcoming)*.

Algan, Y. and P. Cahuc (2013). Trust, Institutions and Economic Development. *Handbook of Economic Growth 1*.

Allport, G. W. (1954). The Nature of Prejudice.

Andersson, T. and L. Ehlers (2020). Assigning refugees to landlords in sweden: Efficient, stable, and maximum matchings. *The Scandinavian Journal of Economics 122*(3), 937–965.

Andersson, T., L. Ehlers, and A. Martinello (2018). Dynamic Refugee Matching.

Arendt, J. N., C. Dustmann, and H. Ku (2022). Refugee Migration and the Labor Market: Lessons from 40 Years of Post-arrival Policies in Denmark. *Oxford Review of Economic Policy 38*(3), 531–556.

Asimovic, N., R. Ditlmann, and C. Samii (2022). Estimating the Effect of Intergroup Contact over Years: Evidence from a Youth Program in Israel.

Athey, S. and G. Imbens (2016). Recursive Partitioning for Heterogeneous Causal Effects. *Proceedings of the National Academy of Sciences 113*(27), 7353–7360.

Athey, S., J. Tibshirani, and S. Wager (2019). Generalized Random Forests. *The Annals of Statistics 47*(2), 1148–1178.

Athey, S. and S. Wager (2019). Estimating Treatment Effects with Causal Forests: An Application. *Observational Studies 5*(2), 37–51.

Bansak, K., J. Ferwerda, J. Hainmueller, A. Dillon, D. Hangartner, D. Lawrence, and J. Weinstein (2018). Improving Refugee Integration Through Data-driven Algorithmic Assignment. *Science 359*(6373), 325–329.

Barone, G., A. D'Ignazio, G. de Blasio, and P. Naticchioni (2016). Mr. Rossi, Mr. Hu and politics. The Role of Immigration in Shaping Natives' Voting Behavior. *Journal of Public Economics 136*, 1–13.

Battisti, M., A. Romiti, and G. Peri (2022). Dynamic Effects of Co-Ethnic Networks on Immigrants' Economic Success. *Economic Journal 132*(641), 58–88.

Bisin, A. and G. Tura (2019). Marriage, Fertility, and Cultural Integration in Italy. Working Paper 26303, National Bureau of Economic Research.

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

Boeri, T., P. Mishra, C. Papageorgiou, and A. Spilimbergo (2021). Populism and Civil Society. *Economica 88*(352), 863–895.

Bursztyn, L., T. Chaney, T. A. Hassan, and A. Rao (2021). The Immigrant Next Door: Exposure, Prejudice, and Altruism. Technical report, National Bureau of Economic Research.

Campo, F., S. Giunti, and M. Mendola (2021). The Refugee Crisis and Right-wing Populism: Evidence from the Italian Dispersal Policy. Technical report, Institute of Labor Economics (IZA).

Cartocci, R. (2007). *Mappe del Tesoro: Atlante del Capitale Sociale in Italia*, Volume 168. Il Mulino.

Coleman, J. S. (1988). Social Capital in The Creation of Human Capital. *American Journal of Sociology 94*, S95–S120.

Coleman, J. S. (1990). *Foundations of Social Theory*. Harvard University Press.

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

Damm, A. P. (2009). Ethnic Enclaves and Immigrant Labor Market Outcomes: Quasi-Experimental Evidence. *Journal of Labor Economics 27*(2), 281–314.

Damm, A. P. and M. Rosholm (2010). Employment Effects of Spatial Dispersal of Refugees. *Review of Economics of the Household 8*(1), 105–146.

Danzer, A. M. and F. Yaman (2013). Do Ethnic Enclaves Impede Immigrants' Integration? Evidence from a Quasi-experimental Social-interaction Approach. *Review of International Economics 21*(2), 311–325.

Dinas, E., K. Matakos, D. Xefteris, and D. Hangartner (2019). Waking up the Golden Dawn: Does Exposure to the Refugee Crisis Increase Support for Extreme-right Parties? *Political Analysis 27*(2), 244–254.

Dipoppa, G. (2021). How Criminal Organizations Expand to Strong States: Migrant Exploitation and Political Brokerage in Northern Italy.

Dumont, J.-C., T. Liebig, J. Peschner, F. Tanay, and T. Xenogiani (2016). How Are Refugees Faring on the Labour Market in Europe? A First Evaluation Based on The 2014 EU Labour Force Survey ad Hoc Module. *European Commission DG Employment Working Paper* (1).

Durante, R., N. Mastrorocco, L. Minale, and J. Snyder Jr (2023). Unpacking Social Capital. *CEPR Discussion Paper No. 18024*.

Dustmann, C., F. Fasani, T. Frattini, L. Minale, and U. Schönberg (2017). On the Economics and Politics of Refugee Migration. *Economic Policy 32*(91), 497–550.

Dustmann, C., K. Vasiljeva, and A. Piil Damm (2019). Refugee Migration and Electoral Outcomes. *The Review of Economic Studies 86*(5), 2035–2091.

Eckert, F., C. Walsh, M. Hejlesen, et al. (2019). The Return to Big City Experience: Evidence from Danish Refugees. *Oppor Incl Growth Inst Work Pap Fed Reserv Bank Minneap 24*.

Edin, P.-A., P. Fredriksson, and O. Aslund (2003). Ethnic Enclaves and the Economic Success of Immigrants. Evidence from a Natural Experiment. *Quarterly Journal of Economics 118*(1), 329–357.

Edo, A., Y. Giesing, J. Öztunc, and P. Poutvaara (2019). Immigration and Electoral Support for the Far-left and the Far-right. *European Economic Review 115*, 99–143.

Enos, R. D. (2017). *The Space Between Us: Social Geography and Politics*. Cambridge University Press.

Eurostat (2020). Asylum and Managed Migration Database, EU 27, 2008-2019.

Fasani, F., T. Frattini, and L. Minale (2022). (The Struggle for) Refugee integration into the labour market: evidence from Europe. *Journal of Economic Geography 22*(2), 351–393.

Fouka, V. (2022). *Assimilation*. Oxford Handbook of Historical Political Economy.

Giuliano, P. and R. Wacziarg (2020). Who voted for Trump? Populism and Social Capital. Technical report, National Bureau of Economic Research.

Godøy, A. (2017). Local Labor Markets and Earnings of Refugee Immigrants. *Empirical Economics 52*(1), 31–58.

Guiso, L., P. Sapienza, and L. Zingales (2004). The Role of Social Capital in Financial Development. *American Economic Review 94*(3), 526–556.

Guiso, L., P. Sapienza, and L. Zingales (2008). Social Capital as Good Culture. *Journal of the European Economic Association 6*(2-3), 295–320.

Guiso, L., P. Sapienza, and L. Zingales (2011). Civic Capital as the Missing Link. Volume 1 of *Handbook of Social Economics*, pp. 417–480. North-Holland.

Guriev, S. and E. Papaioannou (2022). The Political Economy of Populism. *Journal of Economic Literature 60*(3), 753–832.

Hainmueller, J. and D. J. Hopkins (2014). Public Attitudes Toward Immigration. *Annual Review of Political Science 17*, 225–249.

Halla, M., A. F. Wagner, and J. Zweimüller (2017). Immigration and voting for the far right. *Journal of the European Economic Association 15*(6), 1341–1385.

Hangartner, D., E. Dinas, M. Marbach, K. Matakos, and D. Xefteris (2019). Does Exposure to the Refugee Crisis Make Natives More Hostile? *American Political Science Review 113*(2), 442–455.

Hatton, T. J. (2013). Refugee and Asylum Migration. *International Handbook on the Economics of Migration*, 453–467.

Hatton, T. J. (2016). Refugees, Asylum Seekers, and Policy in OECD Countries. *American Economic Review 106*(5).

Jaschke, P., S. Sardoschau, and M. Tabellini (2022). Scared Straight? Threat and Assimilation of Refugees in Germany. Technical report, National Bureau of Economic Research.

Johnston, R. and C. Pattie (2011). Tactical Voting at the 2010 British General Election: Rational Behaviour in Local Contexts? *Environment and Planning A 43*(6), 1323–1340.

List, J. A., A. M. Shaikh, and Y. Xu (2019). Multiple Hypothesis Testing in Experimental Economics. *Experimental Economics 22*(4), 773–793.

Martén, L., J. Hainmueller, and D. Hangartner (2019). Ethnic Networks Can Foster the Economic Integration of Refugees. *Proceedings of the National Academy of Sciences 116*(33), 16280–16285.

Mayda, A. M., G. Peri, and W. Steingress (2022). The Political Impact of Immigration: Evidence from the United State. *American Economic Journal: Applied Economics 14*(1), 358–389.

Mousa, S. (2020). Building Social Cohesion between Christians and Muslims Through Soccer in Post-ISIS Iraq. *Science 369*(6505), 866–870.

Onyx, J. and P. Bullen (2000). Measuring Social Capital in Five Communities. *The Journal of Applied Behavioral Science 36*(1), 23–42.

Paluck, E. L., S. A. Green, and D. P. Green (2019). The Contact Hypothesis Re-evaluated. *Behavioural Public Policy 3*(2), 129–158.

Pinotti, P. (2015). The Economic Costs of Organised Crime: Evidence from Southern Italy. *Economic Journal 125*(586), F203–F232.

Portes, A. (2000). The Two Meanings of Social Capital. In *Sociological forum*, Volume 15, pp. 1–12. Springer.

Putnam, R. D. (1993). *Making Democracy Work*. Princeton University Press.

Putnam, R. D. et al. (2000). *Bowling Alone: The Collapse and Revival of American Community*. Simon and Schuster.

Satyanath, S., N. Voigtländer, and H.-J. Voth (2017). Bowling For Fascism: Social Capital and The Rise of the Nazi Party. *Journal of Political Economy 125*(2), 478–526.

Schuller, T. (2007). Reflections on the Use of Social Capital. *Review of Social Economy 65*(1), 11–28.

Steinmayr, A. (2021). Contact Versus Exposure: Refugee Presence and Voting for the Far Right. *Review of Economics and Statistics 103*(2), 310–327.

Tropp, L. (2012). *The Oxford Handbook of Intergroup Conflict*. Oxford University Press.

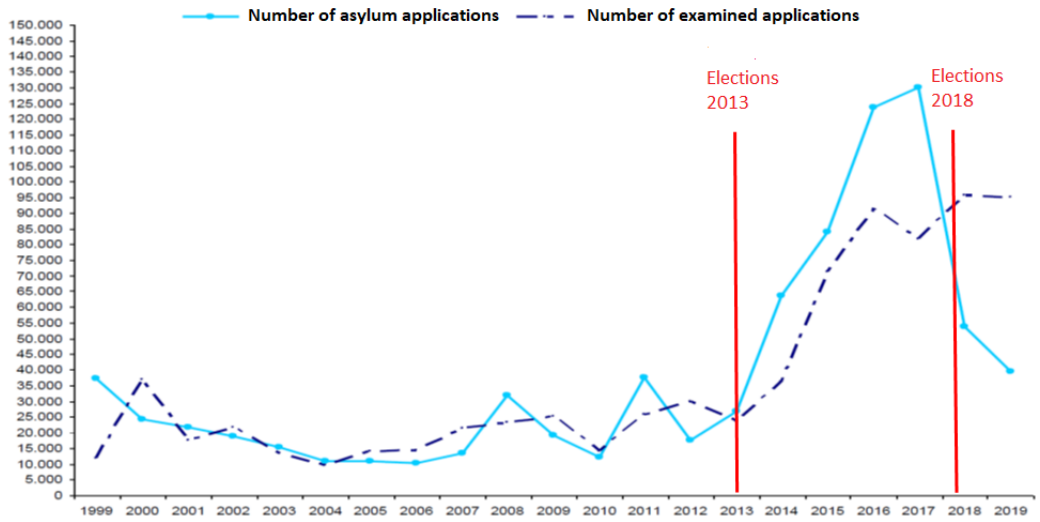
UNHCR (2018). Mediterranean situation - UNHCR data portal.

Volkens, A., T. Burst, W. Krause, P. Lehmann, T. Matthieay, N. Merz, S. Regel, B. WeÃŸels, and L. Zehnter (2020). The Manifesto Data Collection. Manifesto Project (MRG/CMP/MARPOR). Version 2020b.

Woolcock, M. (1998). Social Capital and Economic Development: Toward a Theoretical Synthesis and Policy Framework. *Theory and Society 27*(2), 151–208.

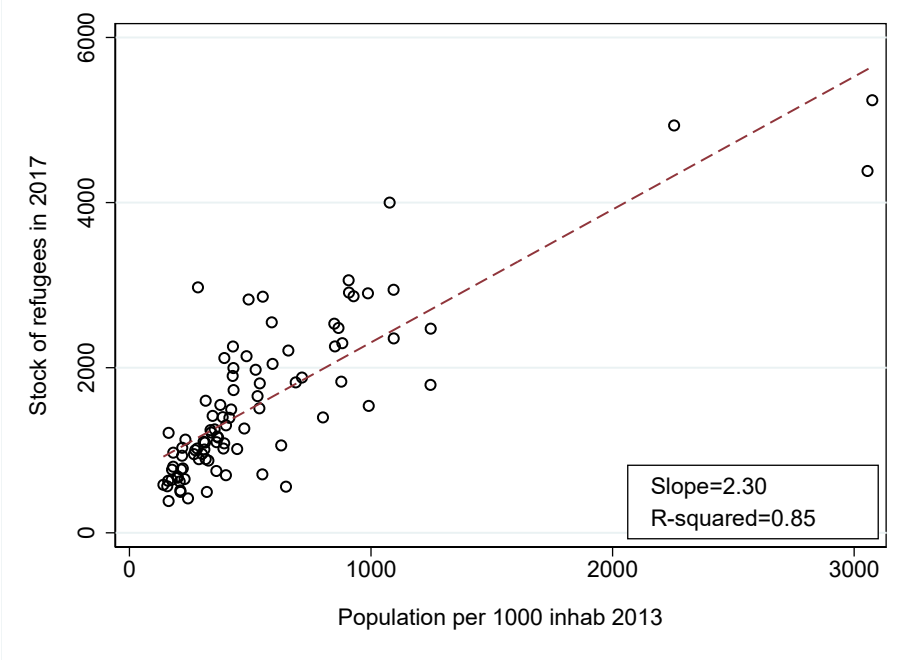
Figures and Tables

Figure 1: Asylum Seekers Arriving in Italy over Time (1999-2019)



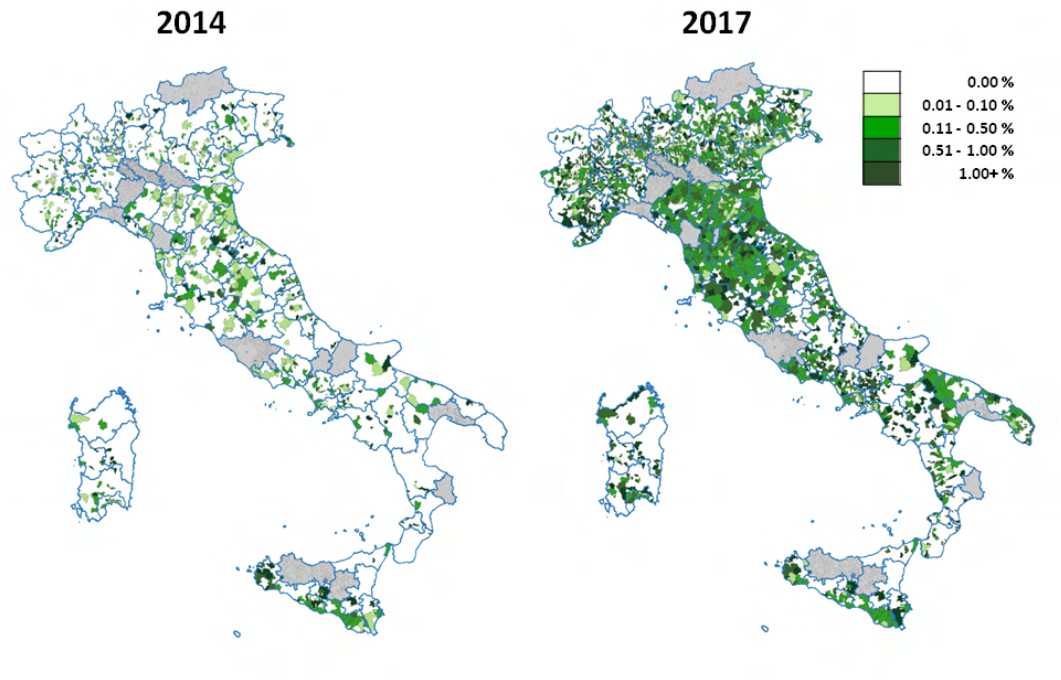
Notes: This Figure plots the evolution in the number of asylum applications and the number of examined applications to Italy from 1999 to 2019. Source: Campo et al. (2021).

Figure 2: Number of Refugees Hosted in 2017 on 2013 Province Population



Notes: This Figure plots the number of assigned refugees per province in 2017 over the pre-policy province population in 2013, and their estimated correlation.

Figure 3: Share of Refugees in 2014 and 2017



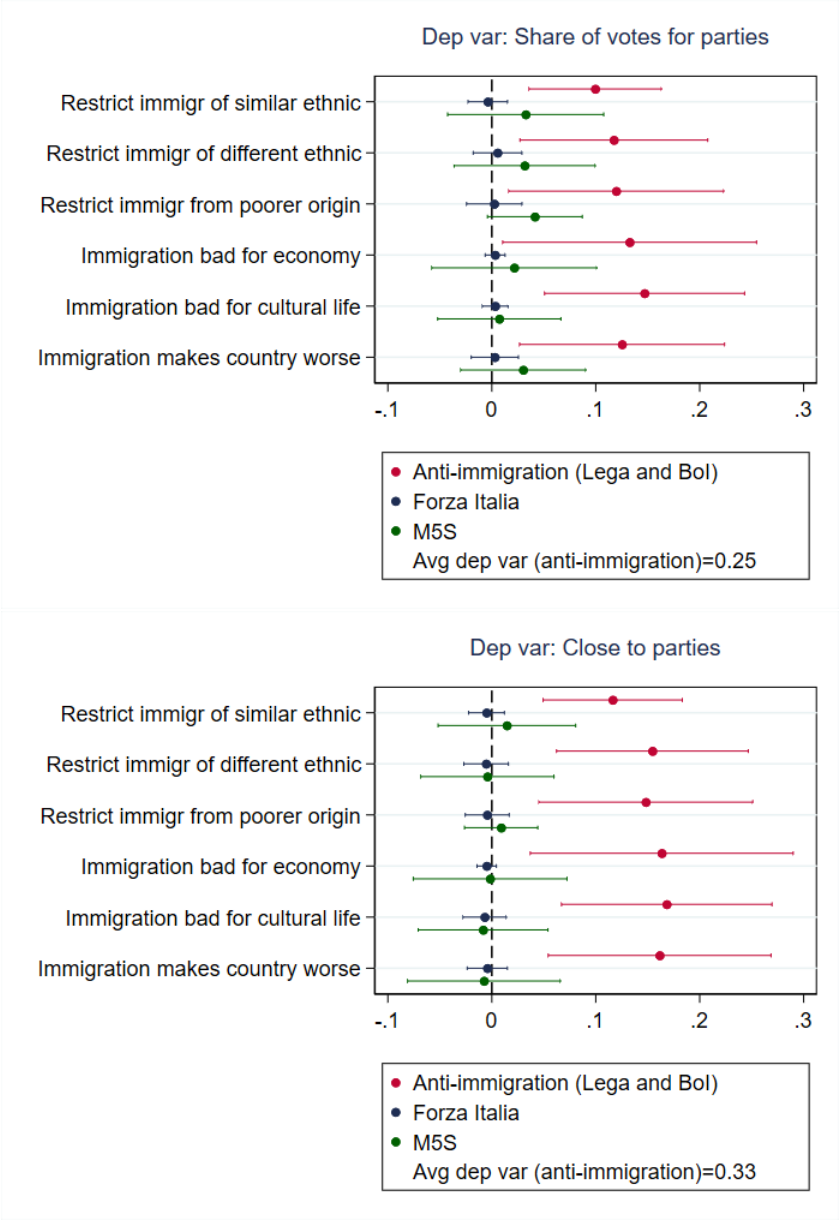
Notes: This Figure shows the distribution of the share of refugees (over the pre-policy province population in 2013) assigned to Italian municipalities in 2014 at the beginning of the refugee crisis and in 2017 at its peak. Source: Campo et al. (2021).

Table 1: Summary Statistics

	Count	Mean	Sd	Min	Max
Panel A. Refugees					
Share of refugees in 2017	6891	0.40	1.60	0	61.31
Number of refugees in 2017	6891	20.81	96.75	0	4000
Avg number of refugees 2014–2017	6891	13.63	73.26	0	4000
Municipality with CAS 2014–2017	6891	0.43	0.50	0	1
Avg number refugees per CAS	2562	23.14	84.78	0.400	4000
Municipality with CAS, more 1 year	6891	0.31	0.46	0	1
Municipality with CAS, more 100 refugees	6891	0.03	0.17	0	1
Municipality with SPRAR	6891	0.10	0.30	0	1
Share of refugees in SPRAR 2017	6891	0.07	0.54	0	17.49
Avg share refugees in SPRAR 2014–2017	6891	0.05	0.39	0	12.92
Panel B. Electoral Outcomes					
Vote share for anti-immigration parties in 2013	6891	8.44	7.36	0	56.52
Vote share for *League* in 2013	6891	5.98	7.22	0	47.83
Vote share for *BoI* in 2013	6891	2.08	2.58	0	42.28
Change in vote share for anti-immigration parties	6891	17.55	7.88	-25.00	53.67
Change in vote share for *League*	6891	14.67	7.07	-8.155	45.53
Change in vote share for *BoI*	6891	1.92	2.88	-30.08	40.57
Panel C. Municipality Characteristics					
Economic drivers					
Income per capita (log)	6891	9.33	0.26	8.034	10.26
Activity rate	6891	49.86	6.31	19.33	77.11
Employment rate	6891	44.91	7.61	18	74.02
Tertiary education rate	6891	7.44	2.78	0	29.06
Population over 65 (%)	6891	24.51	5.38	7.425	61.68
Social Capital					
Electoral participation referenda	6891	48.98	6.30	21.33	72.49
Association density (%)	6885	9.21	8.22	0	95.59
AVIS branch in 2010	6891	0.38	0.48	0	1
Intergroup contact					
Share of immigrants	6891	524.38	3205.85	0	194991
Residential segregation index	6891	21.82	10.66	0	98.25
Naturalization rate	6891	13.71	10.37	0	100
Intermarriage rate	6869	10.97	8.11	0	76.92
Elected Foreign-born admin.	6891	0.35	0.48	0	1
Elected Non-EU15 born admin.	6891	0.14	0.34	0	1

Note: This table shows summary statistics for electoral outcomes in Panel A, for refugee assignment and dispersal policy in Panel B, and municipality local characteristics in Panel C. Table A1 reports the definition of all variables of interest and data sources.

Figure 4: Validation ESS - Political Preferences and Attitudes Against Immigration



Notes: This Figure shows OLS estimates of the correlation between self-reported political preferences and attitudes and behaviour against immigration. The dependent variables in panel A include an indicator for whether the individual declare to vote for *League* and *BoI*, or alternatively Forza Italia and M5S in the last election in 2018, and in panel B an indicator for whether the individual declare to be close to *League* and *BoI*, or alternatively Forza Italia and M5S. The main explanatory variables are indicators equal to one if the individual declares to i) support restrictive immigration policies of similar ethnic groups, ii) of immigrants from different backgrounds, iii) of immigrants from poorer origin, and iv) perceive immigration as bad for the economy and v) socio-cultural environment, and vi) believe immigration makes the country worse. Estimates partials out survey year and region fixed effects, and individual characteristics including gender, age, age square, education, marital status, and having a child. Summary statistics for the main variables are reported in Table A5. *Source*: ESS data, Italy (2018).

Table 2: Balance Tests

Baseline characteristics:	(1) Share of refugees in 2017	(2) Std. err.	(3) p-value	(4) p-value FWER
A. Political outcomes				
Chamber				
Anti-immigration (%)	-0.005	0.058	0.935	1.000
League (%)	-0.012	0.057	0.833	0.998
BoI (%)	0.005	0.015	0.749	0.997
PDL (%)	-0.002	0.051	0.968	1.000
M5S (%)	-0.104	0.055	0.061	0.372
Center-left (%)	0.110	0.071	0.125	0.528
Election turnout (%)	-0.079	0.066	0.237	0.733
Senate				
Anti-immigration (%)	0.011	0.067	0.869	0.998
League (Nord) (%)	0.005	0.062	0.937	1.000
BoI (%)	0.004	0.018	0.830	0.998
PDL (%)	-0.014	0.050	0.775	0.997
M5S (%)	-0.089	0.053	0.098	0.492
Center-left (%)	0.147	0.085	0.087	0.472
Election turnout (%)	-0.089	0.067	0.187	0.640
B. Institutional context				
Municipality hosted a SPRAR	-0,001	0,001	0,288	0,823
Share of refugees in SPRAR (%)	0.000	0.002	0.907	0.946
Municipality under receivership 2007-13	-0.002	0.002	0.250	0.823
Municipality expenditure (log)	-0.017	0.010	0.084	0.659
Votes for *League* candidate (%) in latest municipality elections	-0.006	0.004	0.115	0.694
League mayor in charge	-0.013	0.008	0.114	0.694
Mafia presence 1982-2013	0.002	0.004	0.686	0.946
Mafia crime rate 2004-2013	0.000	0.000	0.618	0.946
Crime rate 2004-2013	0.002	0.002	0.239	0.823
C. Economic and demographic characteristics				
Income per capita (log)	-0.001	0.002	0.718	0.712
Activity rate	-0.191	0.062	0.003	0.037
Employment rate	-0.160	0.071	0.027	0.133
Rent prices sqm. (log)	-0.023	0.016	0.168	0.435
Tertiary education rate	-0.024	0.021	0.263	0.469
Population over 65 (%)	0.201	0.063	0.002	0.037
D. Social capital				
Referenda turnout	0.020	0.058	0.733	0.739
Volunteers (% pop.)	0.164	0.092	0.078	0.203
AVIS branch	-0.014	0.003	0.000	0.003
E. Intergroup contact				
Share of immigrants (% pop.)	-0.037	0.044	0.401	0.880
Residential segregation index	0.082	0.089	0.356	0.880
Naturalization rate	0.063	0.106	0.554	0.896
Intermarriage rate	0.000	0.001	0.783	0.945
Foreign-born administrators	-0.005	0.003	0.128	0.555
Non-EU15 born administrators	0.000	0.003	0.903	0.945

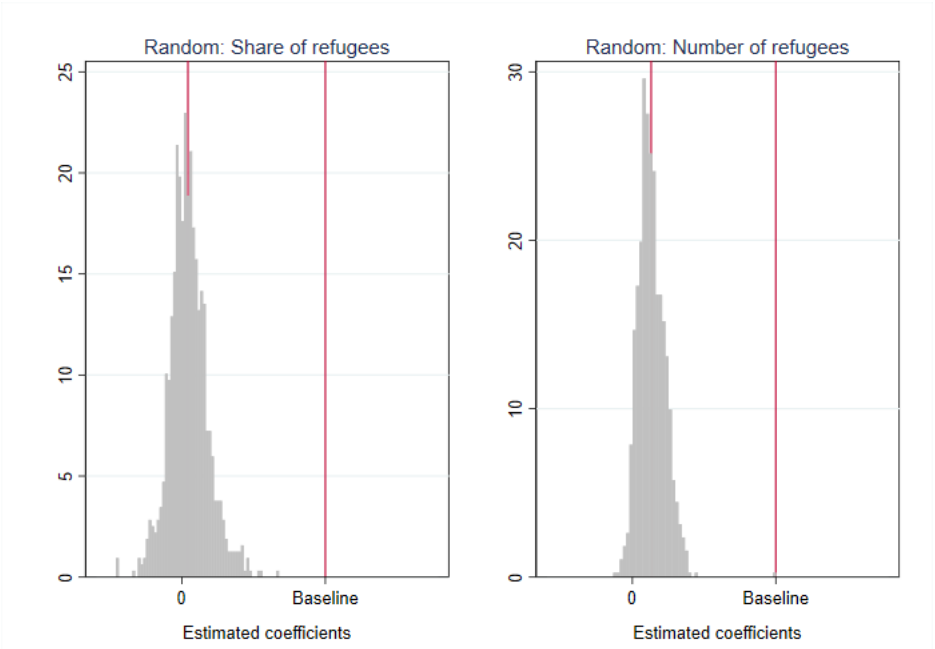
Note: This table shows balance tests of pre-treatment local municipality-level characteristics on refugee exposure. Each row reports OLS estimates and standard errors from the univariate cross-sectional regression of the share of refugees on local pre-treatment variable in column 1 and 2. Column 3 reports the p-value of these regression. Column 4 reports p-values adjusted for multiple hypothesis testing by group of outcomes using the free step-down resampling method with 10,000 bootstrap repetitions (Westfall and Young, 1993) to control the family-wise error rate (FWER).

Table 3: Pre-trends in Election Results - Chamber of Deputies (2001-2013)

	(1) Anti-immigration	(2) *League*
Year 2013 × Share of Refugees	-0.0231	-0.0039
	(0.0450)	(0.0346)
Year 2008 × Share of Refugees	-0.0191	0.0069
	(0.0769)	(0.0586)
Year 2006 × Share of Refugees	0.0010	0.0469
	(0.0537)	(0.0340)
Observations	27556	27556
Municipality FE	Yes	Yes
Time FE	Yes	Yes

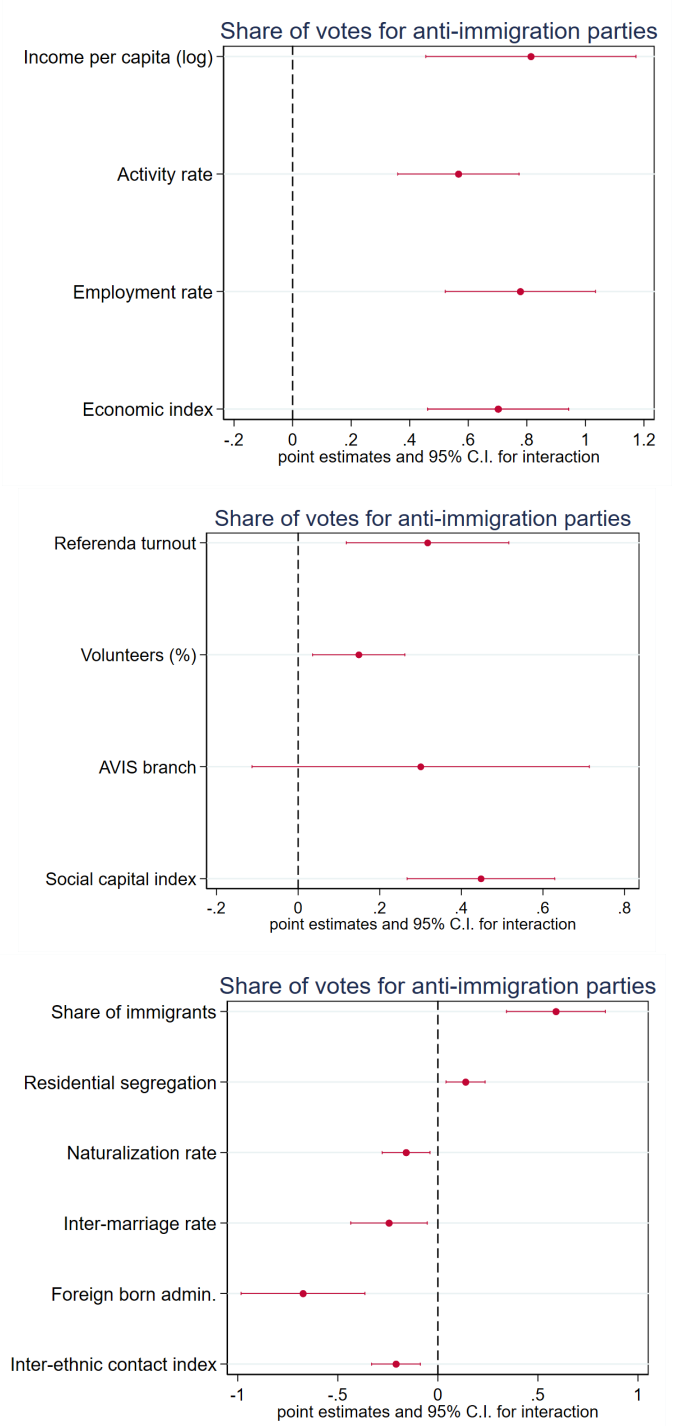
Note: This table shows the effects of refugee exposure on vote shares for anti-immigration parties and *League* over time. The sample includes 6889 municipalities for which electoral data from 2001 to 2013 are available. The main explanatory variable $Share\ of\ Refugees$ is the fraction of refugees over total baseline population at the municipality level interacted by year dummies. The anti-immigration front consists of different parties in each election: Northen League, Alleanza Nazionale, Forza Nuova, Fiamma Tricolare in 2001; Northen League, Alleanza Nazionale, Alleanza Sociale Mussolini, Fiamma Tricolare in 2006; Northen League, Forza Nuova, Alleanza Sociale Mussolini, Fiamma Tricolare - Destra Sociale in 2008; Northen League, Brothers of Italy, Forza Nuova, Casa Pound in 2013. In 2001 and 2008 the number of votes for the *League* party was set to zero for municipalities located in those constituency where the *League* party did not run, i.e., Abruzzo, Basilicata, Calabria, Campania, Lazio, Marche, Puglia, Sardegna, Sicilia, Umbria. All specifications include municipality and year fixed effects. Standard errors clustered at the municipality level are reported in parentheses. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

Figure 5: Placebo: Counterfactual Political Backlash



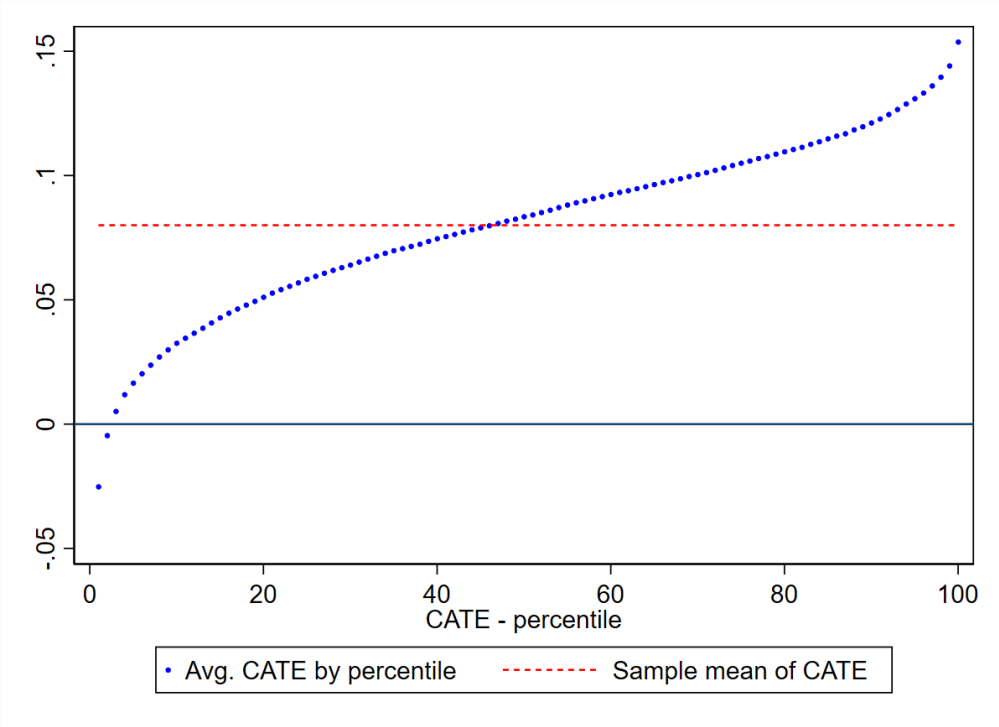
Notes: This Figure shows the distribution of placebo effects of refugee exposure on vote shares for anti-immigration parties from counterfactual scenarios. We construct a counterfactual scenario by randomly reassigning the share of refugees (panel A) or the number of refugees (panel B) across municipalities within the same province. We replicate this counterfactual random assignment for thousand times. For each replication, placebo effects are estimated using the fixed effects model in (1). The main explanatory variable *Share of Refugees* is the fraction of refugees over total baseline population at the municipality level. All specifications include municipality and year fixed effects.

Figure 6: Political Backlash by Local Characteristics



Notes: This figure shows the estimated effect on vote share for anti-immigration parties of refugee exposure interacted with local economic characteristics, social capital and intergroup contact measures at baseline. Effects are estimated using the fixed effects model in (1). Regressions include municipality and time fixed effects. The graph plot the estimated coefficients and associated confidence intervals, based on standard errors clustered at the province level. Point estimates are reported in Appendix Tables A6, A8, and A9.

Figure 7: Predicted CATE by Percentile Rank



Notes: This Figure shows how the predicted Conditional Average Treatment Effect (CATE) varies over its rank distribution, by percentile. For each municipality, CATE is estimated via a causal forest algorithm. The red line reports the sample mean.

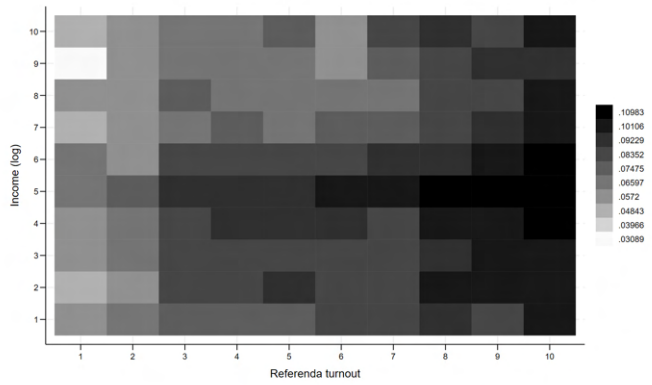
Table 4: Predicted CATE of Refugee Exposure

	(1)	(2)	(3)	(4)
	Predicted treatment effects		Std. diff.	MHT p-value
Baseline characteristics	Below median	Above median	(1)-(2)	(1)-(2)
Income (log)	9.302	9.361	-0.227	0.001
Employment rate	44.389	45.434	-0.138	0.001
Activity rate	49.574	50.147	-0.091	0.001
Population	7867.521	6571.607	0.048	0.114
Share over 65	22.637	23.482	-0.153	0.001
Tertiary education rate dummy	0.492	0.507	-0.030	0.249
Referenda turnout	46.977	50.979	-0.670	0.001
NGO associations density	10.806	7.612	0.396	0.001
Blood donor centre	0.353	0.397	-0.092	0.001
Share of immigrants	5.543	6.882	-0.311	0.001
Residential segregation index	23.554	20.094	0.329	0.001
Naturalization rate	14.163	13.262	0.087	0.001
Intermarriage rate	0.116	0.104	0.147	0.001
Foreign-born local administrators	0.379	0.338	0.087	0.001

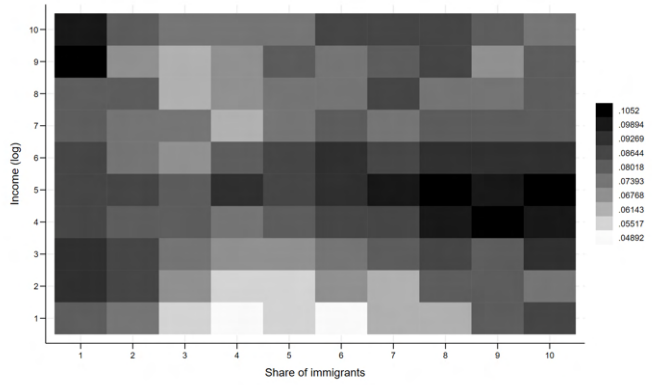
Note: This table shows average baseline local characteristics for municipalities with, respectively, below and above median Conditional Average Treatment Effect (CATE) of refugee exposure, in columns (1) and (2). For each municipality, CATE is estimated via a causal forest algorithm. Column (3) report the standardized difference, while column (4) reports p-values testing for differences across groups, while accounting for multiples hypothesis testing, as in List et al. (2019).

Figure 8: CATE of Refugee Exposure, by Pairs of Characteristics

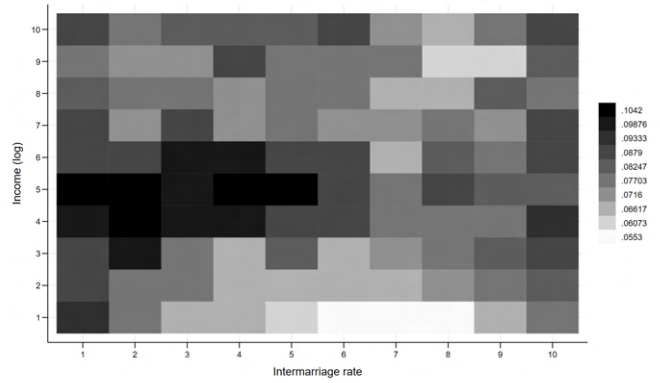
A. Referenda Turnout rate



B. Share of Immigrants

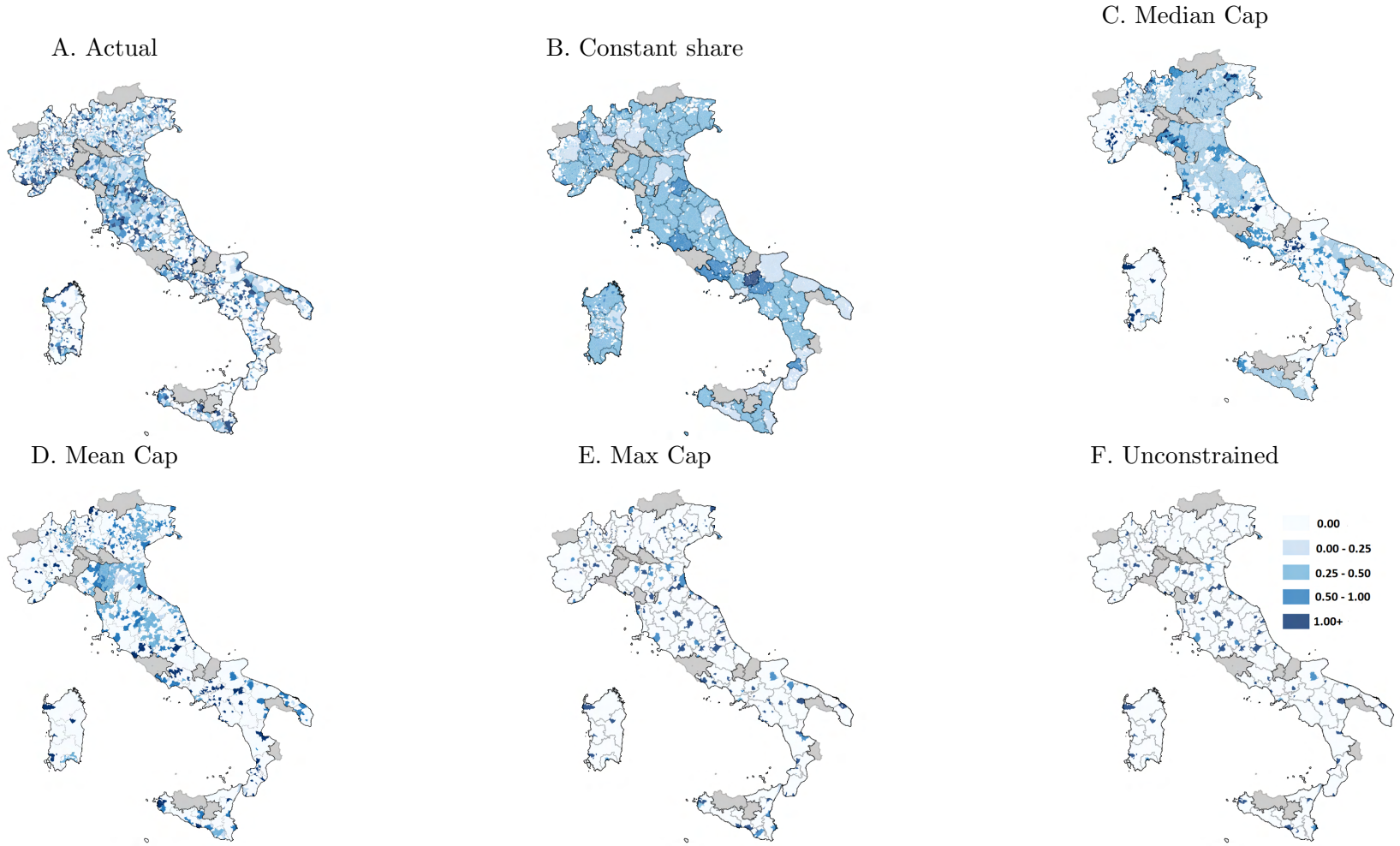


C. Intermarriage rate



Notes: This Figure shows the average predicted Conditional Average Treatment Effects (CATE) over income and turnout rate (panel A), income and share of former immigrants (panel B), and income and intermarriage (panel C). For each municipality, CATE is estimated via a causal forest algorithm.

Figure 9: Actual vs Counterfactual Simulated Distributions of Refugees



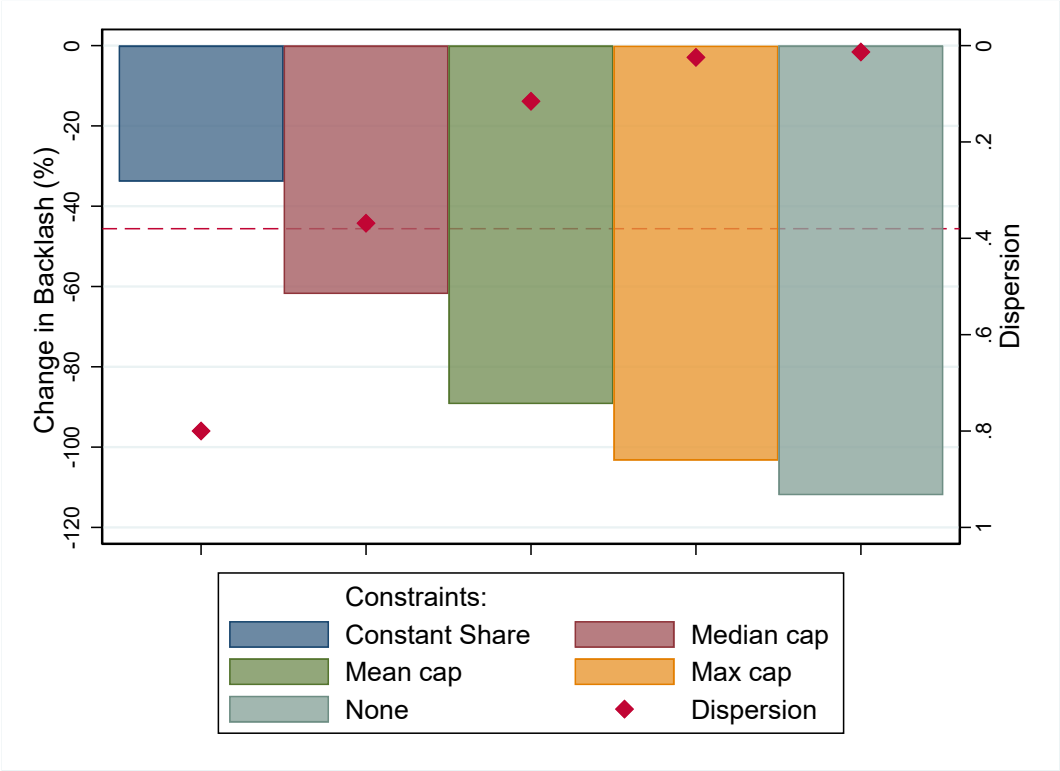
Notes: This Figure shows the distribution of the share of refugees assigned to Italian municipalities by the actual dispersal policy (panel A), and the optimal distribution of the share of refugees implied by the matching problem in (3), subject to diverse capacity constraints (panel B-F).

Table 5: Summary Statistics - Counterfactual Assignments

	Count	Mean	Sd	Min	Max
Panel A. Actual refugee distribution					
Share of refugees	6891	0.40	1.60	0.00	61.31
Share of refugees no zero	2624	1.05	2.46	0.01	61.31
Number of refugees no zero	2624	54.70	150.79	1.00	4000
Municipality with CAS	6891	0.38	0.49	0.00	1.00
Panel B. Simulated refugee distribution - Constant share					
Share of simulated refugees	6891	0.27	0.19	0.00	1.14
Share of simulated refugees no zero	5512	0.34	0.15	0.02	1.14
Number of simulated refugees no zero	5512	26.04	69.54	1.00	2151
Municipality with simulated CAS	6891	0.80	0.40	0.00	1.00
Mismatch rate	6891	0.48	0.50	0.00	1.00
Treated (at baseline) to control	6891	0.03	0.17	0.00	1.00
Control (at baseline) to treated	6891	0.45	0.50	0.00	1.00
Panel C. Simulated refugee distribution - Median capacity					
Share of simulated refugees	6891	0.18	0.51	0.00	22.06
Share of simulated refugees no zero	2540	0.49	0.75	0.03	22.06
Number of simulated refugees no zero	2540	56.51	149.28	1.00	3573
Municipality with simulated CAS	6891	0.37	0.48	0.00	1.00
Mismatch rate	6891	0.31	0.46	0.00	1.00
Treated (at baseline) to control	6891	0.16	0.37	0.00	1.00
Control (at baseline) to treated	6891	0.15	0.35	0.00	1.00
Panel D. Simulated refugee distribution - Mean capacity					
Share of simulated refugees	6891	0.09	0.52	0.00	22.06
Share of simulated refugees no zero	796	0.78	1.33	0.02	22.06
Number of simulated refugees no zero	796	180.33	378.53	5.00	4923
Municipality with simulated CAS	6891	0.12	0.32	0.00	1.00
Mismatch rate	6891	0.32	0.47	0.00	1.00
Treated (at baseline) to control	6891	0.29	0.46	0.00	1.00
Control (at baseline) to treated	6891	0.03	0.16	0.00	1.00
Panel E. Simulated refugee distribution - Max capacity					
Share of simulated refugees	6891	0.14	1.59	0.00	61.35
Share of simulated refugees no zero	168	5.59	8.55	0.06	61.35
Number of simulated refugees no zero	168	854.43	859.10	11.00	4969
Municipality with simulated CAS	6891	0.02	0.15	0.00	1.00
Mismatch rate	6891	0.37	0.48	0.00	1.00
Treated (at baseline) to control	6891	0.36	0.48	0.00	1.00
Control (at baseline) to treated	6891	0.01	0.08	0.00	1.00
Panel F. Simulated refugee distribution - Unconstrained					
Share of simulated refugees	6891	0.38	8.23	0.00	456.85
Share of simulated refugees no zero	91	28.44	66.15	0.23	456.85
Number of simulated refugees no zero	91	1577.42	983.27	385.00	5240
Municipality with simulated CAS	6891	0.01	0.11	0.00	1.00
Mismatch rate	6891	0.37	0.48	0.00	1.00
Treated (at baseline) to control	6891	0.37	0.48	0.00	1.00
Control (at baseline) to treated	6891	0.00	0.05	0.00	1.00

Note: This table shows summary statistics for refugee assignment across Italian municipalities implied by the actual dispersal policy (panel A), and the optimal distribution of the share of refugees implied by the matching problem in (3), subject to diverse capacity constraints (panel B-F).

Figure 10: Change in Backlash and Refugee Dispersion under Optimal Assignments



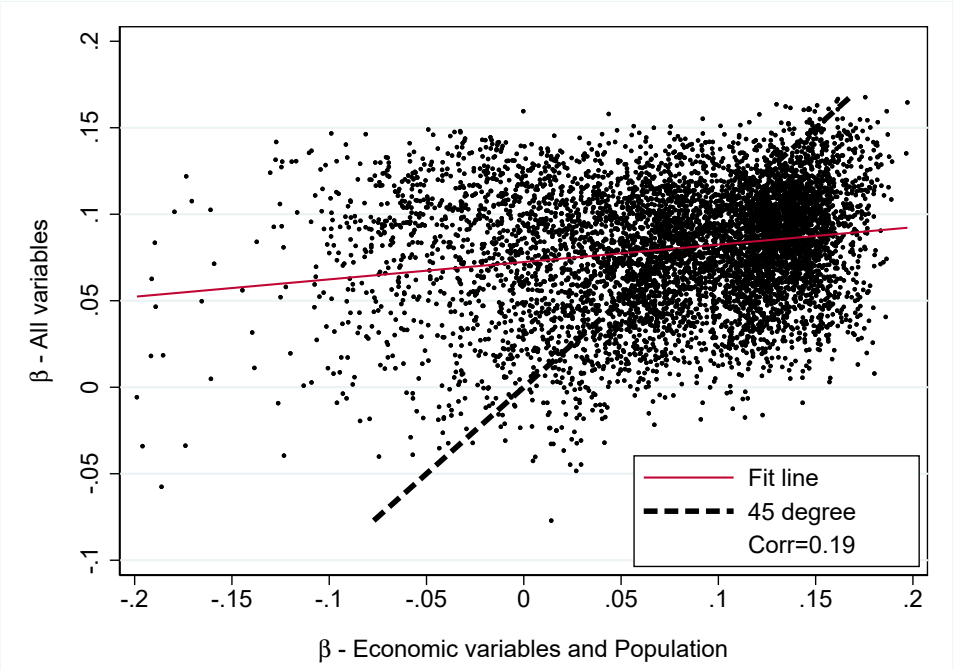
Notes: This Figure shows the change in anti-immigration backlash and the change in refugee dispersion across Italian municipalities computed under the optimal assignment policies (for diverse capacity constraints) with respect to the actual random dispersal policy in place. The red dashed line reports the average dispersion rate under the random dispersal policy.

Table 6: Correlation Between Change in Refugee Share and Baseline Characteristics

	(1)	(2)	(3)	(4)
Exp. variable:	Δ Share of Refugees			
Capacity constraint:	Median cap		Mean cap	
Economic index PCA	-1.36**	0.028	-1.39**	0.023
	(0.61)		(0.60)	
Income per capita (log)	-0.05**	0.028	-0.06**	0.014
	(0.02)		(0.02)	
Activity rate	-0.95**	0.048	-0.90**	0.036
	(0.47)		(0.42)	
Employment rate	-1.27**	0.018	-1.37**	0.017
	(0.53)		(0.56)	
Bonding social capital index PCA1	-0.79*	0.078	-1.16**	0.041
	(0.44)		(0.56)	
Average turnout	-1.17*	0.055	-1.30**	0.042
	(0.60)		(0.63)	
Association density (%)	0.20	0.649	-0.40*	0.099
	(0.43)		(0.24)	
AVIS branch in 2010	-0.08**	0.046	-0.06***	0.006
	(0.04)		(0.02)	
Bridging social capital index PCA	0.29	0.271	0.28*	0.094
	(0.26)		(0.17)	
Intermarriage rate	1.14**	0.042	1.05**	0.030
	(0.55)		(0.48)	
Naturalization rate	0.23	0.488	0.20	0.502
	(0.33)		(0.29)	
Share of foreign born	-0.65*	0.077	-0.64**	0.033
	(0.36)		(0.29)	
Observations	2003		678	

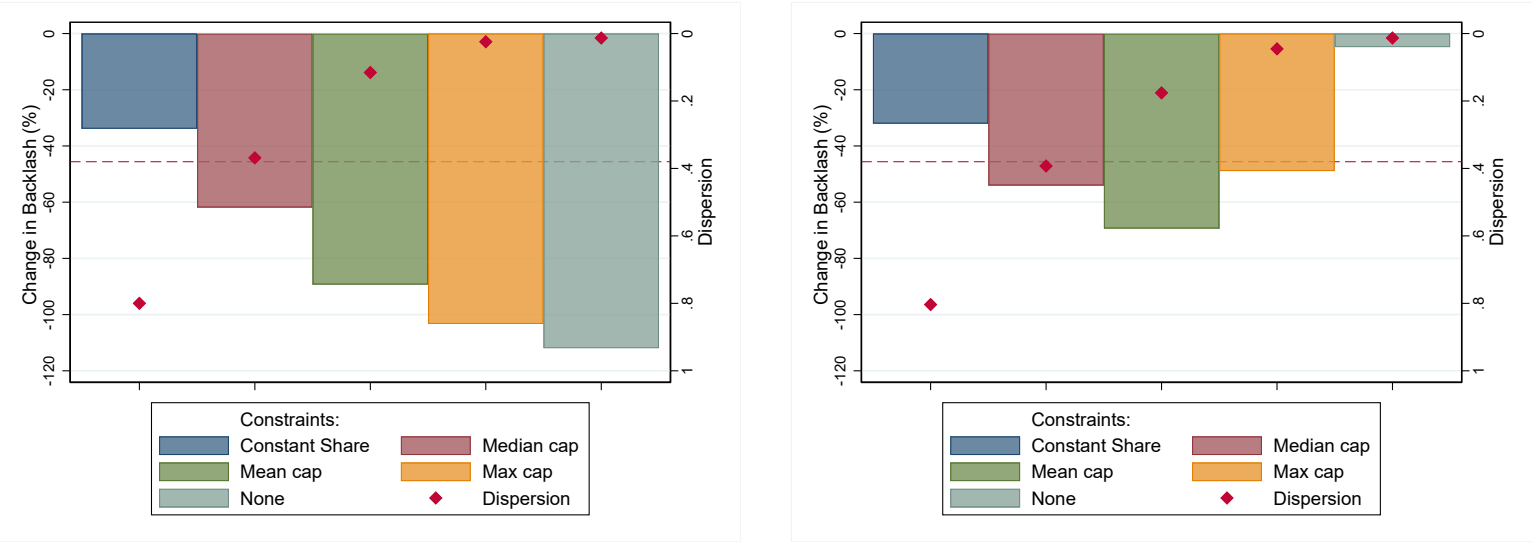
Note: This table shows OLS estimates of the effect of the change in refugee share on local economic and socio-cultural characteristics. Columns (1)-(2) and (3)-(4) present the results considering the optimal refugee assignment subject to median and mean capacity constraints, respectively. Columns (1) and (3) report coefficient estimates and standard errors, while columns (2) and (4) report p-values. Standard errors clustered at the province level are reported in parentheses. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

Figure 11: Correlation Between β_j Estimates under Different Assignment Criteria



Notes: This Figure reports the correlation between β_j estimates computed conditioning on economic, social capital and intergroup contact drivers and β_j^{ec} estimates computed conditioning on economic drivers and population only.

Figure 12: Counterfactual Assignment - Comparison Between Different Assignment Criteria



Notes: This Figure shows the change in anti-immigration backlash and the change in refugee dispersion computed under the optimal assignment policies (for diverse capacity constraints) considering β_j and β_j^{ec} estimates accounting on economic drivers and population only. The red dashed line reports the average dispersion rate under the actual random dispersal policy. Summary statistics are reported in Table A11.

Appendix. For Online Publication

Political Backlash to Refugee Settlement:
Cultural and Economic Drivers

A Additional Figures and Tables

Table A1: Variables of Interest and Data Sources

Variable	Definition	Source
Panel A. Refugees		
Share of refugees	Share of refugees assigned to a given municipality by Dec 2017 over total municipality population in 2013	Data collection from Prefectures, 2014–2019
Panel B. Electoral outcomes		
Chamber: Vote share for anti-immigration parties	Share of votes for anti-immigration parties (*League* and *BoI*) at national elections	Electoral data 2001-18, Ministry of Interior
Chamber: Vote share for *League*	Share of votes for *League* at national elections	Electoral data 2001-18, Ministry of Interior
Chamber: Vote share for *BoI*	Share of votes for *BoI* at national elections	Electoral data 2001-18, Ministry of Interior. Source: elezionistorico.gov
Panel C. Municipality Characteristics		
Institutional context		
Municipality hosted a SPRAR	Indicator for municipality hosting a SPRAR at January 2014	SPRAR Registry, Ministry of Interior
Share of refugees in SPRAR	Share of refugees hosted in SPRAR at January 2014 over total population 2013	SPRAR Registry, Ministry of Interior
Municipality under receivership	Indicator for municipality administrations being under receivership 2007-2013	Local Administrators Registry, Ministry of Interior
Municipality expenditure (log)	Expenditure for local public services (per-user) in euros 2013	Survey on social actions and services of municipalities, ISTAT
Vote share for *League* candidate	Share of votes for *League* candidate in latest municipality elections 2007-2012	Electoral data, Ministry of Interior
League mayor in charge	Indicator for mayor belonging to *League* in charge	Electoral data, Ministry of Interior
Mafia presence	Indicator for Mafia-related crimes between 1982 and 2013	Mafia presence indicator, see Dipoppa (2021)
Mafia crime rate	Number of Mafia-related crimes between 2004 and 2013 over total population in 2013	Crime registry, Ministry of Interior, see Pinotti (2015) and Alesina et al. (2018)
Crime rate	Number of reported crimes between 2004 and 2013 over total population in 2013	Crime registry, Ministry of Interior, see Pinotti (2015) and Alesina et al. (2018)
Economic and demographic characteristics		
Income per capita (log)	Average income over resident population in 2013	IRPEF data, MEF. Source: finanze.gov
Employment rate	Share of employed between individuals who are in the labor force in 2011	Population Census 2011, ISTAT
Activity rate	Share of those who are in the labor force among individuals above 15 yrs. old in 2011	Population Census 2011, ISTAT
Tertiary education rate	Share of the population above 15 yrs. old who have completed tertiary education	Population Census 2011, ISTAT
Rent prices sqm. (log)	Average price per sqm for renting a flat in 2013	Observatory on the Real Estate, Revenue Agency
Population	Population per 1 January 2011	Municipality Registry, ISTAT
Population over 65	Population over 65 on total population, 2013	Municipality Registry, ISTAT
Social capital		
Municipality with AVIS branch	Indicator for presence of AVIS (Italian Blood Volunteers Association) branch in the municipality 2010	AVIS registry data
Average turnout rate in referenda	Turnout rate of all potential voters at referenda 1974-2020	Electoral data, Ministry of Interior
Share of volunteers	Share of volunteers belonging to NGOs in the municipal population	Non profit Institution Census 2011, ISTAT
Intergroup contact		
Share of immigrants	Share of foreign born residents 2013	Municipality Registry, ISTAT
Intermarriage rate	Share of marriages between immigrants and natives over total marriages 1998-2012	Marriage registries 1998-2012, ADELE - ISTAT
Naturalization rate	Share of naturalized immigrants over total number of eligible immigrants 2011	Population Census 2011, ADELE - ISTAT
Segregation rate	Duncan index of residential segregation of immigrants within the municipality 2011	Population Census 2011, ADELE - ISTAT
Foreign administrators	Indicator for presence of foreign administrators elected in municipal elections 2007-2013	Local Administrators Registry, Ministry of Interior
Non-EU foreign administrators	Indicator for presence of non-EU administrators elected in municipal elections 2007-2013	Local Administrators Registry, Ministry of Interior

Table A2: Refugee Inflows in Italy by Most Represented Origin (2014–2018)

Most represented origins	Number of refugees	Sample share (%)
Nigeria	85235	19.13
Pakistan	47762	10.72
Gambia	35834	8.04
Bangladesh	33567	7.53
Mali	31144	6.99
Senegal	29391	6.59
Cote d'Ivoire	22046	4.95
Guinea	17948	4.03
Ghana	16669	3.74
Eritrea	15757	3.54
Ukraine	14473	3.25
Afghanistan	11447	2.57
Somalia	6529	1.46
Morocco	6012	1.35
Iraq	5447	1.22
Cameroon	4924	1.10
El Salvador	4367	0.98
Syria	4097	0.92

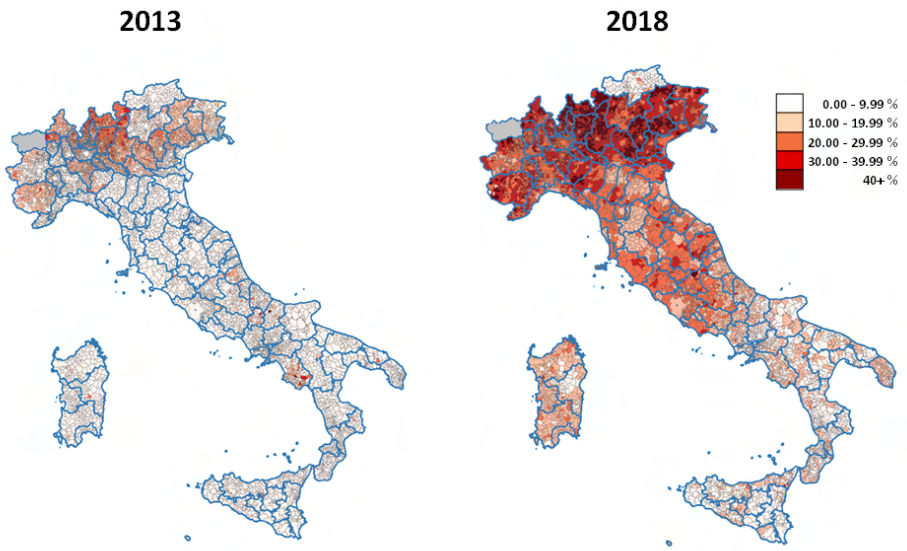
Note: This table shows the most represented countries of origin of asylum seekers migrating into Italy for humanitarian reasons during the refugee crisis 2014–2018. Source: UNHCR.

Table A3: Sample Selection: Municipality Characteristics

Baseline characteristics	(1) Final Sample	(2) Out of Sample	(3) Diff.	(4) Std. Diff.
Political outcomes				
Anti-immigration (%)	8.441	7.046	-1.395	-0.143
	(7.356)	(6.403)	(1.831)	
League (%)	5.984	3.803	-2.181	-0.242
	(7.216)	(5.384)	(1.836)	
BoI (%)	2.076	2.845	0.769	0.154
	(2.584)	(4.258)	(0.778)	
PDL (%)	21.078	19.427	-1.650	-0.155
	(6.526)	(8.396)	(2.225)	
M5S (%)	22.952	20.741	-2.211	-0.204
	(6.507)	(8.694)	(2.451)	
Center-left (%)	25.574	24.393	-1.182	-0.098
	(8.074)	(8.967)	(2.223)	
Turnout rate (%)	74.656	76.438	1.783	0.166
	(7.712)	(7.428)	(1.805)	
Institutional context				
Municipality hosted a SPRAR	0.046	0.054	0.007	0.024
	(0.210)	(0.225)	(0.016)	
Share of refugees in SPRAR (%)	0.036	0.048	0.012	0.023
	(0.390)	(0.343)	(0.022)	
Under receivership 2007-13	0.101	0.095	-0.006	-0.015
	(0.302)	(0.294)	(0.027)	
Municipality expenditure (log)	4.082	4.260	0.178	0.131
	(0.982)	(0.933)	(0.259)	
Votes for *League* candidate in latest municipality elections (%)	0.165	0.127	-0.039	-0.117
	(0.244)	(0.220)	(0.030)	
Mayor from *League* party in charge	0.328	0.256	-0.071	-0.111
	(0.470)	(0.438)	(0.064)	
Economic and demographic characteristics				
Income per capita (log)	9.331	9.341	0.010	0.025
	(0.261)	(0.272)	(0.075)	
Activity rate	49.861	50.141	0.281	0.027
	(6.309)	(8.149)	(2.145)	
Employment rate	44.911	45.438	0.527	0.043
	(7.605)	(9.737)	(2.799)	
Rent prices sqm. (log)	3.541	3.746	0.205	0.074
	(1.735)	(2.167)	(0.441)	
Tertiary education rate	7.444	7.100	-0.344	-0.088
	(2.785)	(2.741)	(0.308)	
Population over 65	23.060	22.648	-0.412	-0.048
	(5.543)	(6.538)	(1.226)	
Social capital				
Average Electoral participation	48.978	48.059	-0.919	-0.113
	(6.297)	(5.110)	(1.046)	
Association density (%)	9.414	12.023	2.609	0.173
	(8.190)	(12.659)	(3.388)	
AVIS branch in 2010	0.375	0.396	0.021	0.030
	(0.484)	(0.489)	(0.073)	
Intergroup contact				
Residential segregation index	21.824	22.201	0.377	0.026
	(10.663)	(9.861)	(1.185)	
Naturalization rate	13.713	13.833	0.121	0.008
	(10.370)	(10.872)	(1.509)	
Intermarriage rate	0.110	0.104	-0.006	-0.053
	(0.081)	(0.082)	(0.016)	
Elected Foreign-born admin.	0.358	0.316	-0.042	-0.063
	(0.480)	(0.465)	(0.065)	
Elected Non-EU15 born admin.	0.142	0.129	-0.013	-0.027
	(0.349)	(0.335)	(0.031)	
Observations	6,891	914	7,806	

Note: This table shows OLS estimates on pre-treatment variables for our final sample (column 1) and the out sample (column 2) of municipalities. The difference in means and the standardized difference are reported in column 3 and 4. Standard errors clustered at the province level in parentheses. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

Figure A1: Vote Shares for Anti-immigration Parties (*League* + *BoI*), 2013 and 2018



Notes: This Figure shows the distribution of vote shares for anti-immigration parties, including *League* and *BoI*, across Italian municipalities in the two national election of 2013 and 2018. Source: Electoral data, (Ministry of Interior).

Table A4: Manifesto Project - Italian parties' ideology about immigration

	2013					2018				
Category:	*League*	*BoI*	PDL	M5S	PD	*League*	*BoI*	PDL	M5S	PD
Multiculturalism: Positive	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23
Multiculturalism: Negative	0.00	1.52	0.00	0.00	0.00	2.75	3.85	0.00	0.00	0.00
Immigration: Negative	-	-	-	-	-	2.98	1.65	2.08	0.02	0.00
Immigration: Positive	-	-	-	-	-	0.00	0.00	0.00	0.09	0.39
Immigrants Assimilation	-	-	-	-	-	1.91	2.20	0.00	0.00	0.00

Note: This table shows data on party ideology concerning assimilation and immigration in 2013 and 2018, by party. Data on immigration ideology are not available for 2013. Source: The Manifesto Project; for reference see https://manifesto-project.wzb.eu/.

Table A5: Summary Statistics ESS, Political Preferences and Attitudes Against Immigration

	Count	Mean	Sd	Min	Max
Panel A. Political preferences					
Vote for anti-immigration parties (last election)	1282	0.24	0.43	0	1
Close to anti-immigration parties	1054	0.33	0.47	0	1
Panel B. Attitudes against immigration					
Restrict immigration of similar ethnic background	2657	2.31	0.91	1	4
Restrict immigration of different ethnic background	2656	2.53	0.92	1	4
Restrict immigration from poorer origin	2652	2.49	0.95	1	4
Immigration bad for economy	2653	5.33	2.64	0	10
Immigration bad for cultural life	2660	5.26	2.76	0	10
Immigration makes country worse	2667	5.89	2.48	0	10

Note: This table shows summary statistics on political preferences and attitudes against immigration at the individual level from ESS survey (2018).

Table A6: Response to Refugee Exposure & Economic Drivers

Dep var. Share of votes for parties:	(1) Anti-immigration	(2) *League*	(3) *BoI*
Panel A. Baseline:			
Share of Refugees	0.168***	0.118**	0.053**
	(0.058)	(0.057)	(0.025)
Panel B. Income per capita:			
Share of Refugees	0.157	0.108	0.053**
	(0.132)	(0.119)	(0.026)
Income per capita (log) × Share of Refugees	0.814***	0.767***	0.018
	(0.183)	(0.148)	(0.047)
Panel C. Activity rate:			
Share of Refugees	0.321***	0.265***	0.054***
	(0.096)	(0.093)	(0.018)
Activity rate × Share of Refugees	0.566***	0.545***	0.003
	(0.106)	(0.096)	(0.037)
Panel D. Employment rate:			
Share of Refugees	0.262**	0.208*	0.055**
	(0.122)	(0.116)	(0.021)
Employment rate × Share of Refugees	0.778***	0.743***	0.010
	(0.131)	(0.110)	(0.041)
Panel E. Economic index:			
Share of Refugees	0.299***	0.244**	0.055***
	(0.115)	(0.110)	(0.019)
Economic index × Share of Refugees	0.702***	0.672***	0.008
	(0.123)	(0.106)	(0.040)
Observations	13782	13782	13782
Mean dep var (2013)	8.44	5.98	2.08
Mean change dep var	17.55	14.67	1.92
Municipality FE	Yes	Yes	Yes
Time FE	Yes	Yes	Yes

Note: This table shows the effects of refugee exposure on vote shares for anti-immigration parties, *League* and *BoI* in columns (1), (2) and (3) in turn. The main explanatory variable *Share of Refugees* is the fraction of refugees over total baseline population at the municipality level interacted with pre-treatment local economic characteristics (i.e., income per capita in log, activity rate, employment rate, and a principal component index). All specifications include municipality and year fixed effects. Standard errors clustered at the municipality level are reported in parentheses. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

Table A7: Response to Refugee Exposure & Demographic Drivers

Dep var. Share of votes for parties:	(1) Anti-immigration	(2) *League*	(3) *BoI*
Panel A. Baseline:			
Share of Refugees	0.168***	0.118**	0.053**
	(0.058)	(0.057)	(0.025)
Panel B. Population:			
Share of Refugees	0.250***	0.195***	0.053**
	(0.059)	(0.061)	(0.026)
Municipality population × Share of Refugees	-0.000***	-0.000***	0.000
	(0.000)	(0.000)	(0.000)
Panel C. Population over 65 (%):			
Share of Refugees	-1.016**	-1.119***	0.140
	(0.415)	(0.397)	(0.151)
Population over 65 (%) × Share of Refugees	0.046***	0.048***	-0.003
	(0.016)	(0.015)	(0.006)
Panel D. Education:			
Share of Refugees	0.326***	0.286***	0.036
	(0.067)	(0.068)	(0.022)
Tertiary education, dummy × Share of Refugees	-0.540***	-0.574***	0.058
	(0.145)	(0.128)	(0.062)
Observations	13782	13782	13782
Mean dep var (2013)	8.44	5.98	2.08
Mean change dep var	17.55	14.67	1.92
Municipality FE	Yes	Yes	Yes
Time FE	Yes	Yes	Yes

Note: This table shows the effects of refugee exposure on vote shares for anti-immigration parties, *League* and *BoI* in columns (1), (2) and (3) in turn. The main explanatory variable *Share of Refugees* is the fraction of refugees over total baseline population at the municipality level interacted with pre-treatment local socio-demographic characteristics (i.e., municipality population, share of the population over 65 years old, and a dummy for above median tertiary education). All specifications include municipality and year fixed effects. Standard errors clustered at the municipality level are reported in parentheses. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

Table A8: Response to Refugee Exposure & Social capital

Dep var. Share of votes for parties:	(1) Anti-immigration	(2) *League*	(3) *BoI*
Panel A. Baseline:			
Share of Refugees	0.168***	0.118**	0.053**
	(0.058)	(0.057)	(0.025)
Panel B. Referenda turnout:			
Share of Refugees	0.061	0.012	0.049
	(0.079)	(0.073)	(0.032)
Electoral participation referenda × Share of Refugees	0.317***	0.314***	0.013
	(0.102)	(0.101)	(0.025)
Panel C. Association density :			
Share of Refugees	0.175**	0.123*	0.055**
	(0.072)	(0.066)	(0.026)
Association density (%) × Share of Refugees	0.149**	0.111**	0.029*
	(0.058)	(0.047)	(0.016)
Panel D. Blood donations:			
Share of Refugees	0.131**	0.083	0.048*
	(0.064)	(0.062)	(0.027)
AVIS branch in 2010=1 × Share of Refugees	0.300	0.277	0.040
	(0.211)	(0.206)	(0.052)
Panel E. Index:			
Share of Refugees	0.087	0.046	0.045
	(0.057)	(0.052)	(0.029)
Social capital index × Share of Refugees	0.448***	0.402***	0.044
	(0.092)	(0.081)	(0.031)
Observations	13782	13782	13782
Mean dep var (2013)	8.44	5.98	2.08
Mean change dep var	17.55	14.67	1.92
Municipality FE	Yes	Yes	Yes
Time FE	Yes	Yes	Yes

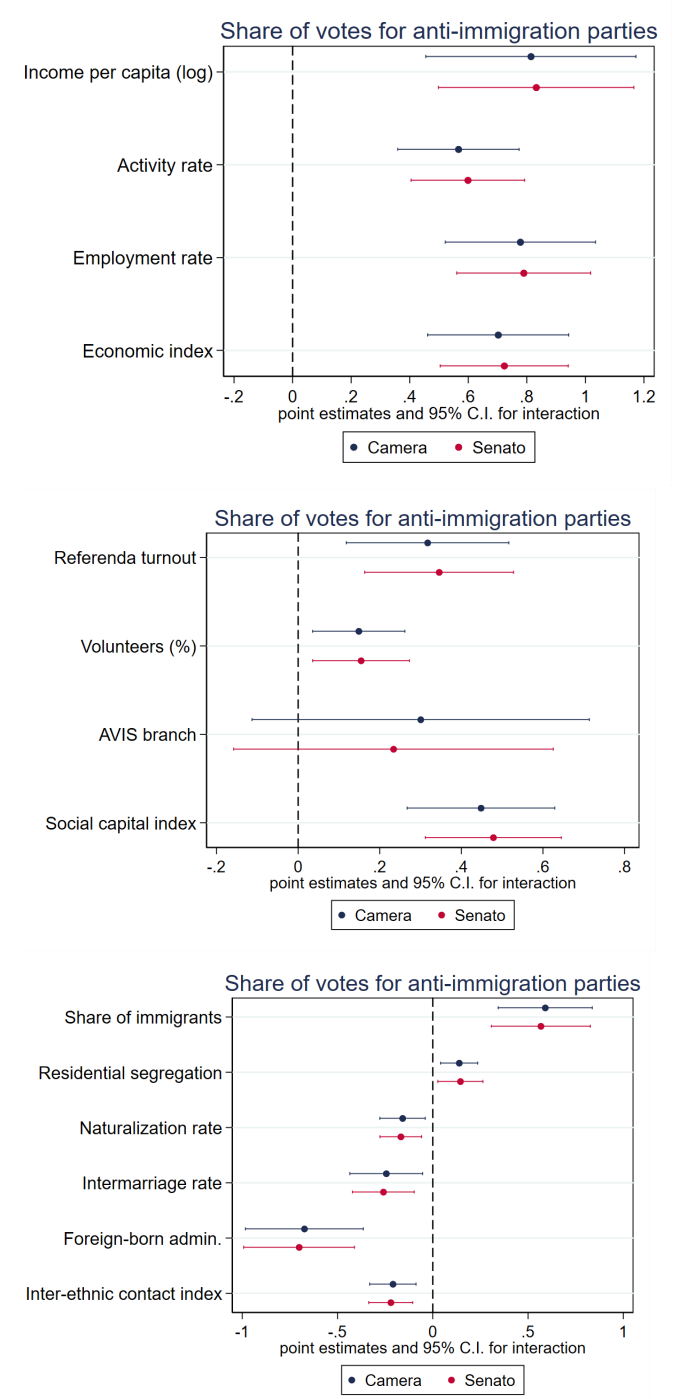
Note: This table shows the effects of refugee exposure on vote shares for anti-immigration parties, *League* and *BoI* in columns (1), (2) and (3) in turn. The main explanatory variable *Share of Refugees* is the fraction of refugees over total baseline population at the municipality level interacted with pre-treatment local characteristics in terms of social capital (i.e., electoral participation at referenda, association density, presence of a blood donation AVIS center, and a principal component index). The number of observations in Panel C and E is reduced to 13,770 due to missing values in association density data for six municipalities. All specifications include municipality and year fixed effects. Standard errors clustered at the municipality level are reported in parentheses. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

Table A9: Response to Refugee Exposure & Intergroup contact

Dep var. Share of votes for parties:	(1) Anti-immigration	(2) *League*	(3) *BoI*
Panel A. Baseline:			
Share of Refugees	0.168***	0.118**	0.053**
	(0.058)	(0.057)	(0.025)
Panel B. Immigrants:			
Share of Refugees	0.417***	0.361***	0.053**
	(0.092)	(0.087)	(0.022)
Share of immigrants × Share of Refugees	0.588***	0.574***	-0.001
	(0.126)	(0.118)	(0.027)
Panel C. Residential segregation index:			
Share of Refugees	0.163***	0.111**	0.055**
	(0.058)	(0.053)	(0.023)
Residential segregation index × Share of Refugees	0.138***	0.191***	-0.045**
	(0.050)	(0.048)	(0.020)
Panel D. Naturalization:			
Share of Refugees	0.140**	0.091	0.053**
	(0.068)	(0.066)	(0.026)
Naturalization rate × Share of Refugees	-0.159***	-0.150***	0.001
	(0.061)	(0.058)	(0.017)
Panel E. Intermarriage:			
Share of Refugees	0.162*	0.112	0.053**
	(0.090)	(0.081)	(0.025)
Intermarriage rate × Share of Refugees	-0.244**	-0.240***	0.005
	(0.098)	(0.066)	(0.036)
Panel F. Foreign administrators:			
Share of Refugees	0.328***	0.291***	0.036*
	(0.061)	(0.061)	(0.019)
Elected Foreign-born admin.=1 × Share of Refugees	-0.674***	-0.728***	0.072
	(0.158)	(0.127)	(0.076)
Panel G. Index:			
Share of Refugees	0.138**	0.083	0.058**
	(0.066)	(0.061)	(0.025)
Interethnic contact index × Share of Refugees	-0.209***	-0.241***	0.033
	(0.062)	(0.057)	(0.022)
Observations	13738	13738	13738
Mean dep var (2013)	8.44	5.98	2.08
Mean change dep var	17.55	14.67	1.92
Municipality FE	Yes	Yes	Yes
Time FE	Yes	Yes	Yes

Note: This table shows the effects of refugee exposure on vote shares for anti-immigration parties, *League* and *BoI* in columns (1), (2) and (3) in turn. The main explanatory variable *Share of Refugees* is the fraction of refugees over total baseline population at the municipality level interacted with pre-treatment local characteristics in terms of intergroup contact (i.e., share of immigrants, residential segregation index, naturalization rate, intermarriage rate, share of elected foreign-born administrators, and a principal component index). All specifications include municipality and year fixed effects. Standard errors clustered at the municipality level are reported in parentheses. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

Figure A2: Response to Refugee Exposure - Chamber and Senate



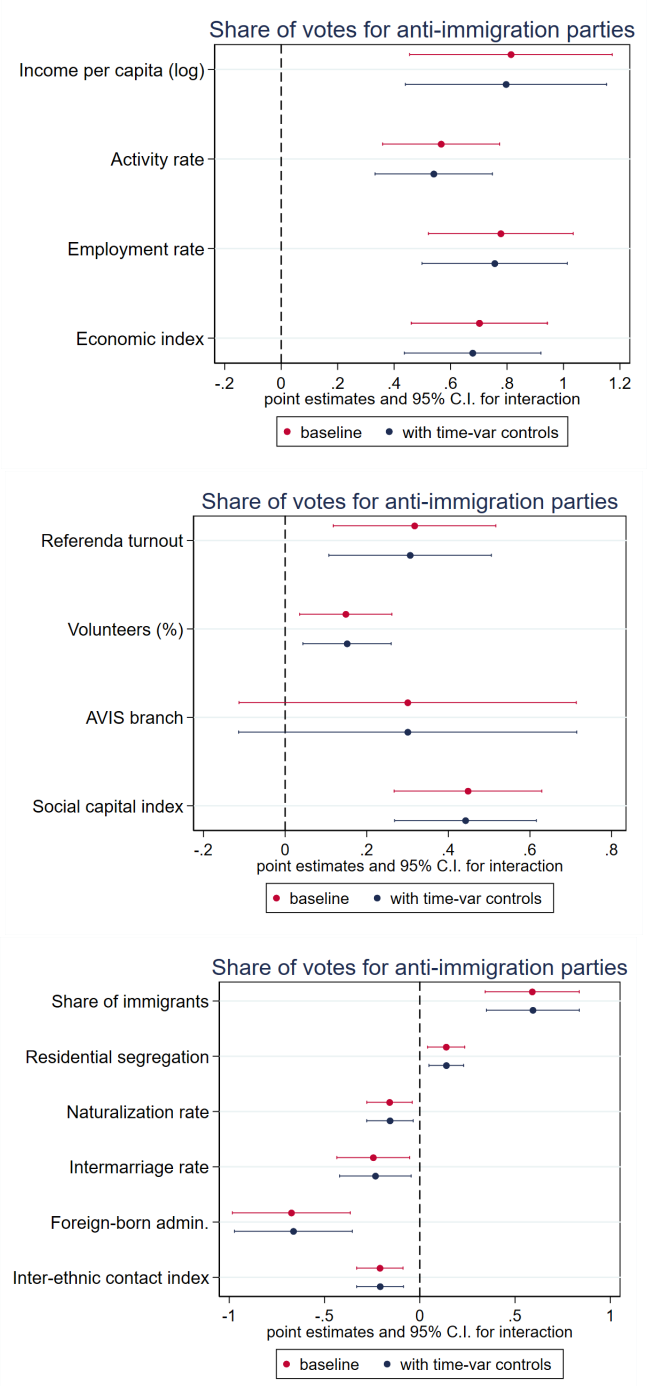
Notes: This Figure shows the estimated effect on vote share for anti-immigration parties of refugee exposure interacted with local economic characteristics, social capital and intergroup contact measures at the local (municipality) level at baseline. Estimates are reported separately for the Chamber of Deputies (blue) and the Senate (red). The graph plot the estimated coefficients and associated confidence intervals, based on standard errors clustered at the province level. Regressions include municipality and time fixed effects.

Table A10: Response to Refugee Exposure on Voting Participation

Dep var:	(1) Turnout rate - Chamber	(2) Turnout rate - Chamber	(3) Turnout rate - Senate	(4) Turnout rate - Senate
Share of Refugees	0.043	0.037	0.045	0.039
	(0.032)	(0.031)	(0.032)	(0.032)
Observations	13782	13782	13782	13782
R-squared	0.930	0.930	0.929	0.930
Mean dep var	74.66	74.66	74.37	74.37
Municipality FE	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes
Time-varying controls	No	Yes	No	Yes

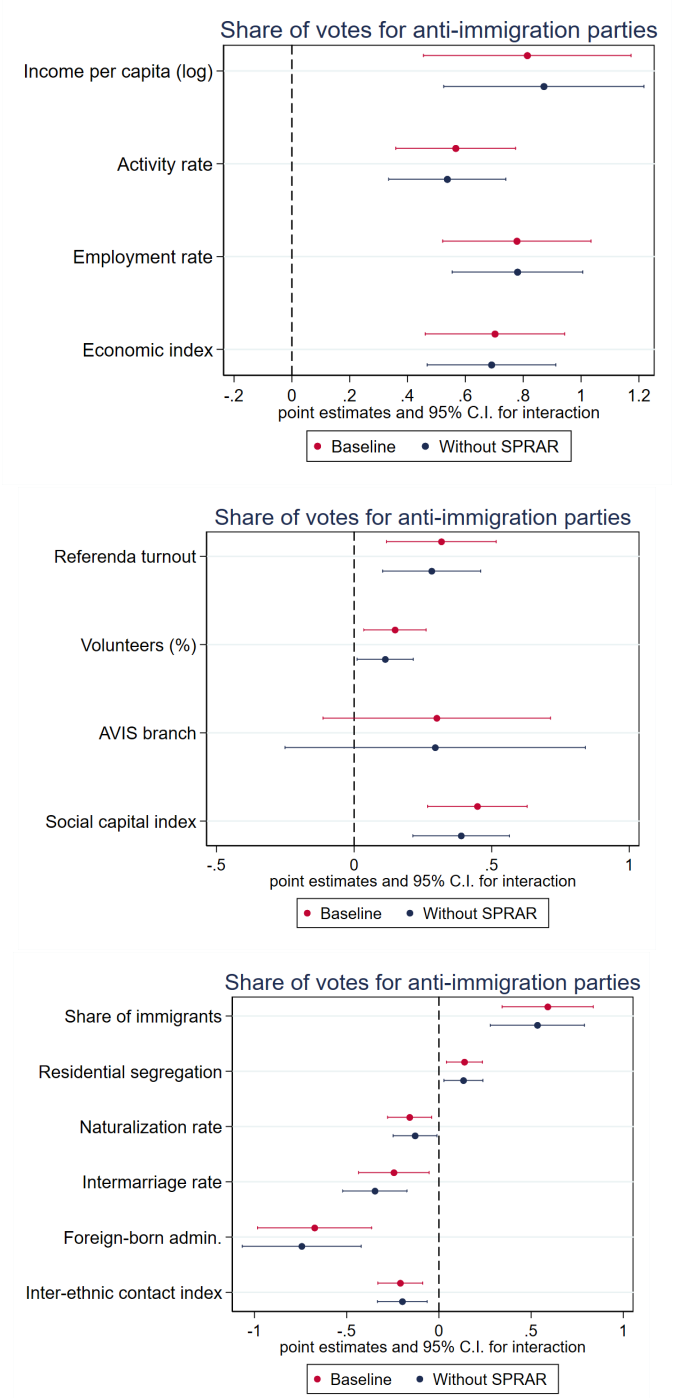
Note: This table shows the effects of refugee exposure on voting participation (i.e., turnout rate), separately for the Chamber of Deputies in columns (1) and (2) and the Senate in columns (3) and (4). The main explanatory variable *Share of Refugees* is the fraction of refugees over total baseline population at the municipality level. All specifications include municipality and year fixed effects. Columns (3) and (4) also include time-varying controls at municipality level. Standard errors clustered at the municipality level are reported in parentheses. Significance level: *** p<0.01, ** p<0.05, * p<0.1.

Figure A3: Response to Refugee Exposure - Include Time-varying Controls



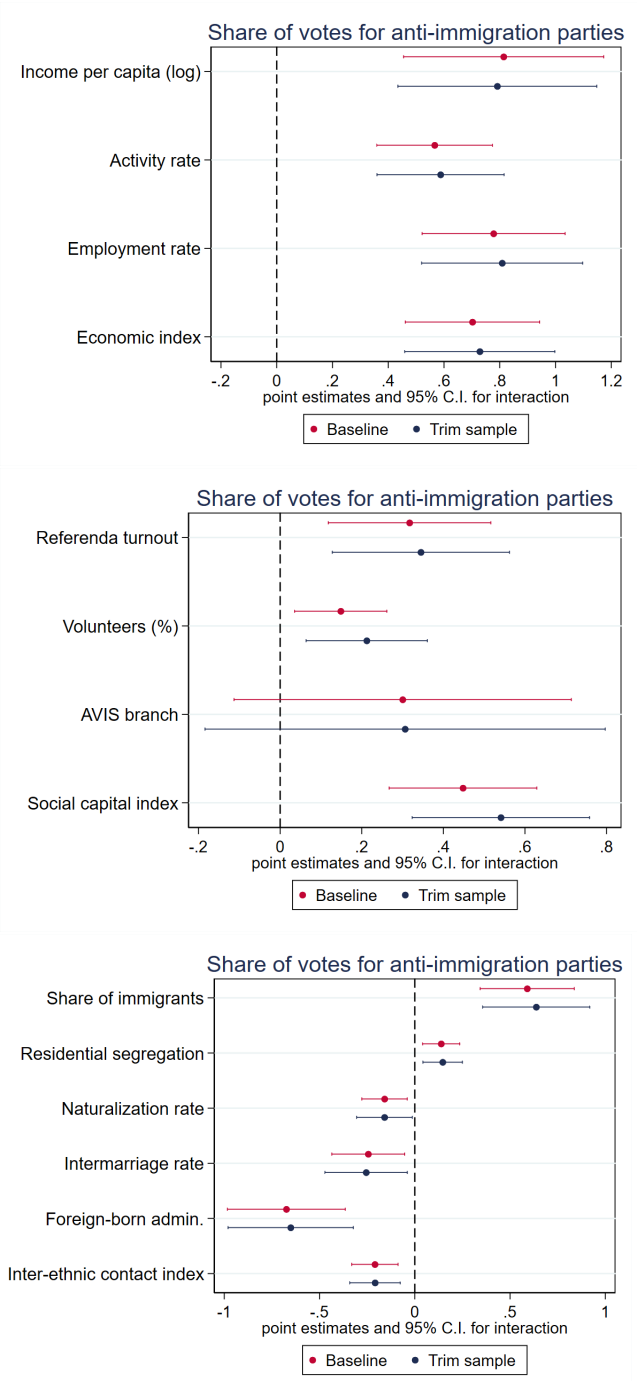
Notes: This Figure shows the estimated effect on vote share for anti-immigration parties of refugee exposure interacted with local economic characteristics, social capital and intergroup contact measures at the local (municipality) level at baseline. Estimates are reported separately at baseline (red) and including additional time varying controls at the local level (blue). The graph plots the estimated coefficients and associated confidence intervals, based on standard errors clustered at the province level. Regressions control for share of population over 65 and include municipality and time fixed effects.

Figure A4: Response to Refugee Exposure - Excluding Municipalities with SPRAR



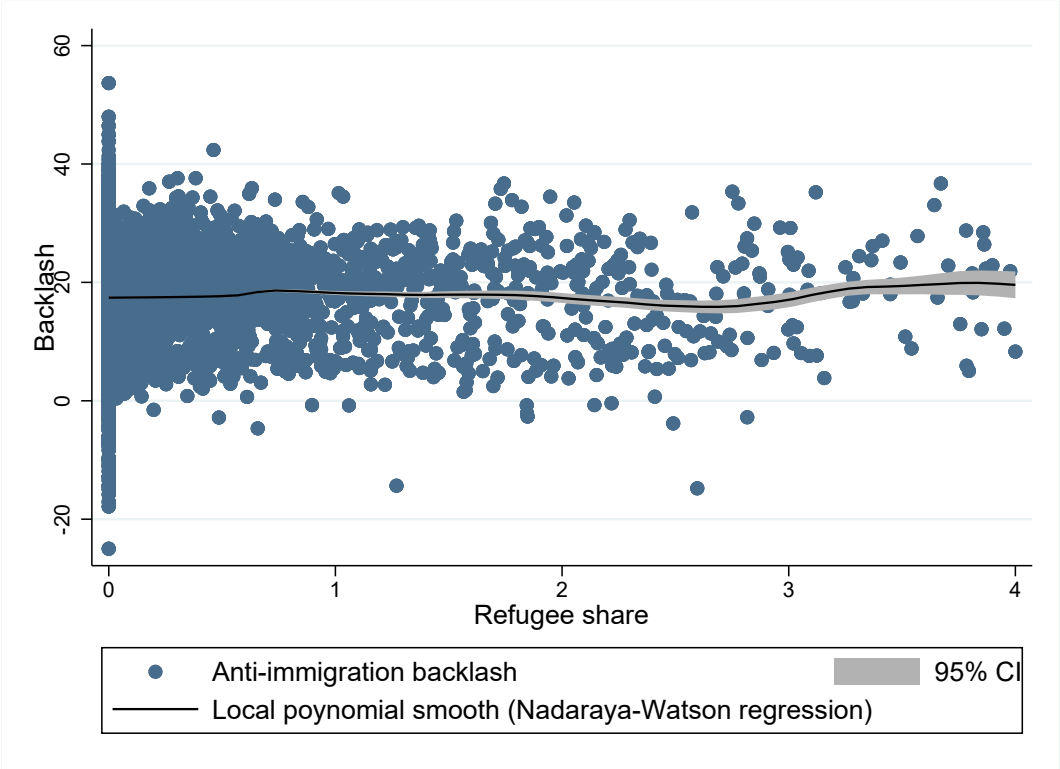
Notes: This Figure shows the estimated effect on vote share for anti-immigration parties of refugee exposure interacted with local economic characteristics, social capital and intergroup contact measures at the local (municipality) level at baseline. Estimates are reported separately for our baseline sample (red) and excluding municipalities that hosted at least one SPRAR reception center before the refugee crisis (blue). The graph plots the estimated coefficients and associated confidence intervals, based on standard errors clustered at the province level. Regressions include municipality and time fixed effects.

Figure A5: Response to Refugee Exposure - Trim Sample



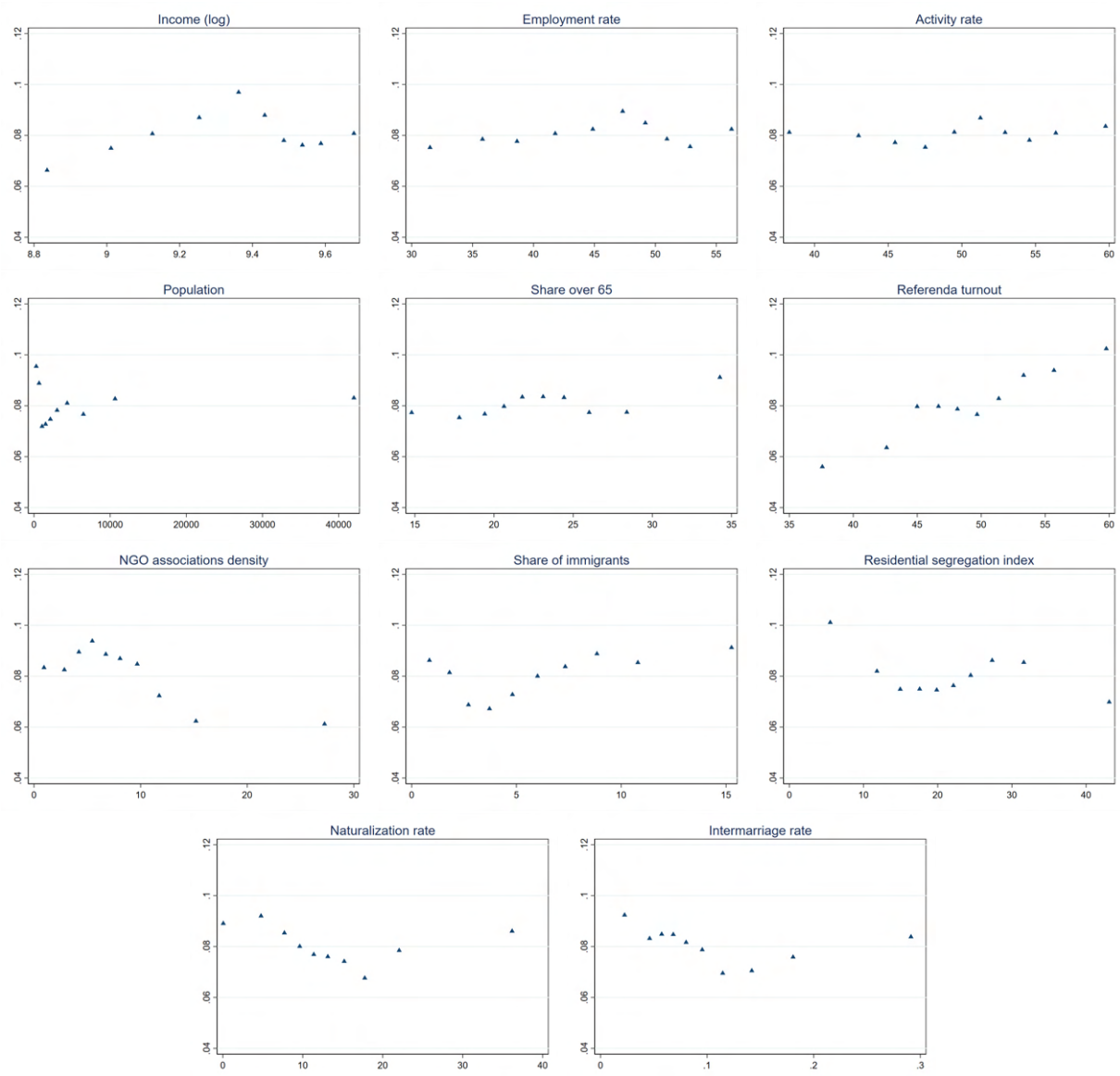
Notes: This Figure shows the estimated effect on vote share for anti-immigration parties of refugee exposure interacted with local economic characteristics, social capital and intergroup contact measures at the local (municipality) level at baseline. Estimates are reported separately for our baseline sample (red) and excluding municipalities at the top 10 percent of anti-immigration vote share distribution, calculated at baseline in 2013 (blue). The graph plots the estimated coefficients and associated confidence intervals, based on standard errors clustered at the province level. Regressions include municipality and time fixed effects.

Figure A6: Local Polynomial Estimate of Local Response to Refugee Exposure



Notes: This Figure shows the scatterplot with overlaid non-parametric estimates of the effect on vote share for anti-immigration parties of refugee exposure from Nadaraya-Watson regression, Epanechnikov kernel, with bandwidth 0.3 natural log points and 95 percent confidence interval.

Figure A7: CATE of Refugee Exposure, by Economic and Socio-cultural Characteristics



Notes: This Figure shows the average predicted Conditional Average Treatment Effects (CATE) over economic and socio-cultural baseline characteristics of Italian municipalities. CATE are estimated using causal forest algorithms.

Table A11: Summary Statistics - Counterfactual Assignments under β_j^{ec}

	Count	Mean	Sd	Min	Max
Panel A. Actual refugee distribution					
Share of refugees	6891	0.40	1.60	0.00	61.31
Share of refugees no zero	2624	1.05	2.46	0.01	61.31
Number of refugees no zero	2624	54.70	150.79	1.00	4000
Municipality with CAS	6891	0.38	0.49	0.00	1.00
Panel B. Simulated refugee distribution - Constant share					
Share of simulated refugees	6891	0.28	0.19	0.00	1.39
Share of simulated refugees no zero	5537	0.34	0.15	0.03	1.39
Number of simulated refugees no zero	5537	25.92	69.40	1.00	2151
Municipality with simulated CAS	6891	0.80	0.40	0.00	1.00
Mismatch rate	6891	0.48	0.50	0.00	1.00
Treated (at baseline) to control	6891	0.03	0.17	0.00	1.00
Control (at baseline) to treated	6891	0.45	0.50	0.00	1.00
Panel C. Simulated refugee distribution - Median capacity					
Share of simulated refugees	6891	0.19	0.37	0.00	8.66
Share of simulated refugees no zero	2706	0.48	0.45	0.00	8.66
Number of simulated refugees no zero	2706	53.05	155.08	1.00	4000
Municipality with simulated CAS	6891	0.39	0.49	0.00	1.00
Mismatch rate	6891	0.32	0.47	0.00	1.00
Treated (at baseline) to control	6891	0.15	0.36	0.00	1.00
Control (at baseline) to treated	6891	0.16	0.37	0.00	1.00
Panel D. Simulated refugee distribution - Mean capacity					
Share of simulated refugees	6891	0.13	0.40	0.00	6.37
Share of simulated refugees no zero	1212	0.76	0.67	0.02	6.37
Number of simulated refugees no zero	1212	118.44	261.51	2.00	4000
Municipality with simulated CAS	6891	0.18	0.38	0.00	1.00
Mismatch rate	6891	0.32	0.47	0.00	1.00
Treated (at baseline) to control	6891	0.26	0.44	0.00	1.00
Control (at baseline) to treated	6891	0.06	0.24	0.00	1.00
Panel E. Simulated refugee distribution - Max capacity					
Share of simulated refugees	6891	0.25	1.98	0.00	61.33
Share of simulated refugees no zero	313	5.41	7.67	0.02	61.33
Number of simulated refugees no zero	313	458.61	590.72	2.00	4383
Municipality with simulated CAS	6891	0.05	0.21	0.00	1.00
Mismatch rate	6891	0.37	0.48	0.00	1.00
Treated (at baseline) to control	6891	0.35	0.48	0.00	1.00
Control (at baseline) to treated	6891	0.02	0.13	0.00	1.00
Panel F. Simulated refugee distribution - Unconstrained					
Share of simulated refugees	6891	0.44	6.74	0.00	279.39
Share of simulated refugees no zero	91	33.22	48.80	0.23	279.39
Number of simulated refugees no zero	91	1577.42	983.27	385.00	5240
Municipality with simulated CAS	6891	0.01	0.11	0.00	1.00
Mismatch rate	6891	0.38	0.48	0.00	1.00
Treated (at baseline) to control	6891	0.37	0.48	0.00	1.00
Control (at baseline) to treated	6891	0.00	0.06	0.00	1.00

Note: This table shows summary statistics for refugee assignment across Italian municipalities implied by the actual dispersal policy (panel A), and the optimal distribution of the share of refugees implied by the welfare assignment problem in (3) given β_j^{ec} estimates, subject to diverse capacity constraints (panel B-F).