

Lorenz, Renate Gabriele

Working Paper

A changing ethnic landscape? The effect of refugee immigration on inter-ethnic group relations and identities of previous immigrants

SOEPpapers on Multidisciplinary Panel Data Research, No. 1225

Provided in Cooperation with:

German Institute for Economic Research (DIW Berlin)

Suggested Citation: Lorenz, Renate Gabriele (2025) : A changing ethnic landscape? The effect of refugee immigration on inter-ethnic group relations and identities of previous immigrants, SOEPpapers on Multidisciplinary Panel Data Research, No. 1225, Deutsches Institut für Wirtschaftsforschung (DIW), German Socio-Economic Panel (SOEP), Berlin

This Version is available at:

<https://hdl.handle.net/10419/322000>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

1225²⁰²⁵

SOEP papers
on Multidisciplinary Panel Data Research

**A changing ethnic landscape?
The effect of refugee immigration on
inter-ethnic group relations and
identities of previous immigrants**

Renate Lorenz

SOEPPapers on Multidisciplinary Panel Data Research at DIW Berlin

This series presents research findings based either directly on data from the German Socio-Economic Panel (SOEP) or using SOEP data as part of an internationally comparable data set (e.g. CNEF, ECHP, LIS, LWS, CHER/PACO). SOEP is a truly multidisciplinary household panel study covering a wide range of social and behavioral sciences: economics, sociology, psychology, survey methodology, econometrics and applied statistics, educational science, political science, public health, behavioral genetics, demography, geography, and sport science.

The decision to publish a submission in SOEPPapers is made by a board of editors chosen by the DIW Berlin to represent the wide range of disciplines covered by SOEP. There is no external referee process and papers are either accepted or rejected without revision. Papers appear in this series as works in progress and may also appear elsewhere. They often represent preliminary studies and are circulated to encourage discussion. Citation of such a paper should account for its provisional character. A revised version may be requested from the author directly.

Any opinions expressed in this series are those of the author(s) and not those of DIW Berlin. Research disseminated by DIW Berlin may include views on public policy issues, but the institute itself takes no institutional policy positions.

The SOEPPapers are available at <http://www.diw.de/soeppapers>

Editors:

Jan **Goebel** (Spatial Economics)
Christian **Hunkler** (Migration)
Philipp **Lersch** (Sociology, Demography)
Levent **Neyse** (Behavioral and Experimental Economics)
Carsten **Schröder** (Public Economics)
Sabine **Zinn** (Statistics)

Conchita **D'Ambrosio** (Public Economics, DIW Research Fellow)
Denis **Gerstorff** (Psychology, DIW Research Fellow)
Martin **Kroh** (Political Science, Survey Methodology)
Stefan **Liebig** (Sociology)
David **Richter** (Psychology)
Jörg-Peter **Schräpler** (Survey Methodology, DIW Research Fellow)
Thomas **Siedler** (Empirical Economics, DIW Research Fellow)
C. Katharina **Spieß** (Education and Family Economics)
Katharina **Wrohlich** (Gender Economics)

ISSN: 1864-6689 (online)

German Socio-Economic Panel (SOEP)
DIW Berlin
Mohrenstrasse 58
10117 Berlin, Germany
Contact: soeppapers@diw.de



A changing ethnic landscape? The effect of refugee immigration on inter-ethnic group relations and identities of previous immigrants

Renate Lorenz

June 18, 2025

Abstract

How does the arrival of a new immigrant group affect earlier generations of immigrants? Do intergroup relations and self-identification among earlier immigrants change? Previous research on ethnic boundaries is usually restricted to a two-group paradigm and primarily focuses on the majority group's perspective. In contrast, this study analyzes how the arrival of refugees in Germany influenced previous immigrants of Turkish and Polish origin by exploiting regional and temporal variation in refugee immigration. I combine macro data about refugees with individual longitudinal data of a large-scale German panel survey (SOEP) from 2012 to 2018 based on a random sample. Using fixed effects estimations, this study finds that an increasing proportion of refugees in a county increased concerns about immigration and decreased self-reported discrimination among respondents of Turkish ($N = 676$ respondents, $n = 2,914$ person-years) and Polish ($N = 513$ respondents, $n = 2,141$ person-years) origin. Moreover, immigrants of Turkish origin tended to feel more German while simultaneously feeling closer to Turkey. Immigrants of Polish origin also felt more German but not closer to Poland. These results are in line with the theoretical assumptions that minority groups tend to distance themselves from new immigrants, and use the opportunity to improve their own social position by strengthening their identification with the majority and/or with their own ethnic group.

1 Introduction

In 2015 and 2016, an unprecedented inflow of refugees¹ from North Africa and the Middle East substantially transformed the ethnic landscape in Europe. Whereas the effects of refugee immigration on immigrant-majority group relations have received a considerable amount of attention (Dinas et al., 2019; Hangartner et al., 2019; Dustmann, Vasiljeva, and Piil Damm, 2019; Schaub, Gereke, and Baldassarri, 2020), researchers have mostly neglected the impact on other minorities. This study fills this research gap by analyzing how the arrival of refugees as a new immigrant group affected intergroup relations and ethnic boundaries of earlier generations of immigrants. The massive inflow of refugees has challenged other ethnic minorities to position themselves in relation to a new outgroup. At the same time, it has offered them the opportunity to redefine their relations to the majority population and to their own ethnic minority group. This offers an opportunity to improve their position within the ethnic hierarchy.

This study sheds light on how refugee immigration has affected ethnic boundaries from a minority perspective. Ethnic boundaries are defined by social interactions between ethnic groups, by self-identification of group members, and by the confirmation of outgroup members. This study analyzes group relations and self-identification of minority ingroups, whereas the viewpoint of outgroup members is not part of this study. More specifically, I focus on the following potential effects of refugee immigration on ethnic minority groups: Have previous immigrants grown more concerned about immigration? Has self-reported ethnic discrimination changed? Do former immigrants feel more German or more connected to their country of origin (or both)? The outcomes examined in this study all have important individual and social consequences. Concerns about immigration may affect the voting behavior of those immigrants with German citizenship, as anti-immigrant sentiments often drive right-wing populist voting (Arzheimer, 2008); and right-wing populism appeals at least to some immigrants in Germany (Goerres, Mayer, and Spies, 2020). In addition, perceived discrimination has negative consequences on a broad range of health outcomes across different minority groups and societies (Williams, Neighbors, and Jackson, 2003). Furthermore, ethnic identification influences both political involvement (Verkuyten and Martinovic, 2012) and educational achievement (Altschul, Oyserman, and Bybee, 2006).

Exploring multi-group contexts is a crucial endeavor in societies with increasing ethnic and cultural diversity. Research shows that once achieved integration can in fact

¹I use the term “refugees” in a colloquial manner that includes all displaced persons, that is, all foreigners in Germany seeking asylum or with a protected status.

be reversed. For instance, discrimination can lead to a re-ethnicization of immigrants (Skrobanek, 2009). It is yet unclear whether the arrival of new migrant groups stimulates or threatens the integration of previous immigrant groups. This topic will become even more salient in the future as migration flows will most likely continue worldwide due to environmental changes, geopolitical instability and conflicts (OECD, 2020).

This paper exploits the temporal and regional variation of refugee accommodation by using county-level longitudinal data of a large-scale German panel survey (Socio-economic Panel, SOEP) from 2012 to 2018. The presence of refugees is measured by the proportion of recipients of asylum seeker benefits in relation to the total population of a county. Both the descriptive trend graphs and the results of the individual fixed effects estimations show that an increasing proportion of refugees has increased concerns about immigration and decreased self-reported discrimination among respondents of Turkish ($N = 676$, $n = 2,914$) and Polish ($N = 513$, $n = 2,141$) origin.² In addition, Turkish immigrants showed a tendency toward increased identification with the host country. At the same time, they felt more connected to their country of origin. Polish respondents also felt more German in reaction to refugee immigration, but not closer to Poland. These results indicate that previous immigrant groups distance themselves from the new immigrant group, and move closer to the German majority. These results provide first indications of changing ethnic boundaries from a minority perspective.

This article makes two major research contributions, one substantive and one methodological. First, it is one of the first studies to investigate the effect of immigration on other minorities' group relations and self-identification in a European context. It adds to a small body of research that moved from a two-group paradigm to the analyses of three groups. At the same time, it contributes to the literature on the impacts of the European refugee crisis by shifting the focus from the majority to other minorities in the host country. Second, whereas most studies on the impact of immigration rely on a cross-sectional analysis, this article combines longitudinal individual-level data with the advantages of an exogenous stimulus of refugee immigration. This setup achieves an advanced research design that allows for reliable causal conclusions.

²For the sake of simplicity, I will hereafter refer to all respondents of Turkish (Polish) origin as Turks (Poles).

2 Background and literature

2.1 Historical background

In 2015 and 2016, a large number of refugees arrived in Europe as a consequence of revolutions and civil wars in North Africa and the Middle East. In Germany, one of the most popular destination countries in Europe, more than 1.2 million asylum applications were filed within these two years (Grote, 2018, pp. 5, 15). Figure 1 shows the sharp and unexpected rise in refugee numbers. The arrival of such a large group has substantially transformed the ethnic landscape of a country, which had already been ethnically diverse before the influx. Before the refugee crisis, 21 percent of the residents in Germany already had a migration background, meaning they themselves or at least one of their parents were born without German citizenship (BAMF, 2016b, p. 158). Turks and Poles, who are the subject of this study, had been the two largest ethnic minority groups: 17% of those with a migration background were of Turkish origin, 10% of Polish origin (BAMF, 2016b, p. 163). The Turkish immigration history largely dates back to the recruitment of “guest workers” for low-skilled jobs in the 1960s as part of the rebuilding effort after World War II. After a recruitment stop in 1973, a significant number of workers and their families stayed in the country.

Polish immigration history to Germany has a longer tradition, and is more complex. Starting in 1900, Polish-speaking immigrants worked in industrial areas, and by the early 20th century, their population grew significantly in some regions. After World War II, some regions with Polish minorities became part of Poland. From the 1950s, about 2.5 million people moved from Poland to West Germany, including ethnic Germans, political refugees, and labor migrants, with immigration peaking in the 1980s and early 1990s.

2.2 Ethnic boundaries

This paper acknowledges the ethnically diverse context of Germany, a much sought-after destination throughout the refugee crisis. Studying ethnic relations in a multi-group context situates this paper in a larger research field on ethnic boundaries.³ *Ethnic boundaries* can be defined as “patterns of social interaction that give rise to, and subsequently reinforce, in-group members’ self-identification and outsiders’ confirmation of group distinctions” (Sanders, 2002, p. 327). This definition highlights several distinc-

³For an overview of immigration theories and the location of the ethnic boundary paradigm, see Wimmer (2009).

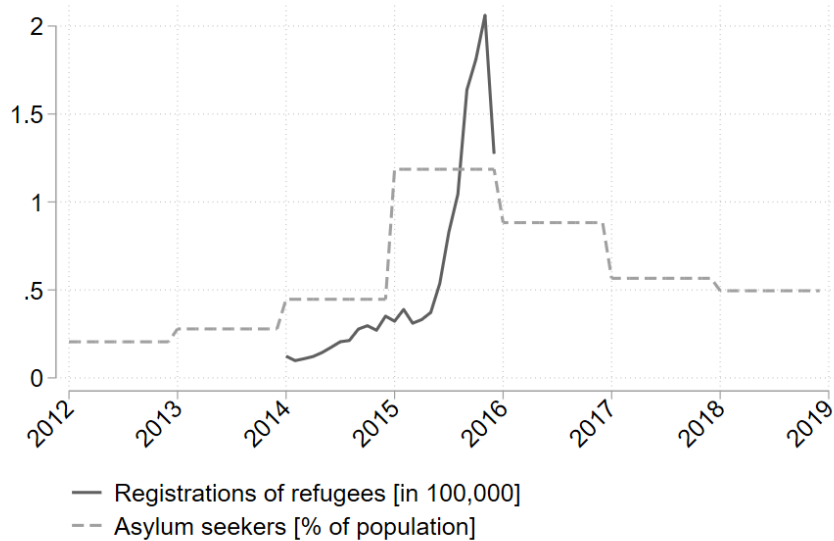


FIGURE 1: Refugees in Germany from 2012 to 2018: Monthly number of refugee registrations (solid line, data: Federal Ministries of the Interior) and yearly recipients of asylum seeker benefits per 100 inhabitants (dashed line, data: Federal Statistical Office of Germany).

tive features of ethnic boundaries. First, it points out that both majority and minority groups take part in the procedure of boundary making. Thus, when there is a disagreement about the drawing of boundaries between these groups, ethnic boundaries can be ambiguous. Second, the above definition of ethnic boundaries determines both interactions and group-identifications as constitutive. Therefore, when group interactions or identifications change, ethnic boundaries can change as well.

In consequence, ethnic distinctions may be considered “fuzzy” and ethnic boundaries “soft” (Wimmer, 2008, p. 976) to acknowledge that demarcations are unclear and changeable (Nagel, 1994), and that identities can even switch situationally (Nagata, 1974). Whether boundaries can be blurred depends on the defining features of the boundaries, which vary by cultural context. Whereas in the US racial classifications are central for ethnic boundaries (Davenport, 2020), in Europe Islam is a constitutive characteristic for boundaries (Brubaker, 2013), so that Muslims are perceived as “others” (Alba, 2005; Zolberg and Long, 1999). Being born in Germany, having German parents, and speaking the language fluently is perceived as constitutive for being German (Mäs, Mühler, and Opp, 2005).

The interest of this paper lies in the analysis of group relations and group self-identification as constitutive features of ethnic boundaries. However, I focus solely on

the immigrants' perspective as a permanently understudied group. More specifically, this paper pursues the question of how ethnic group relations and self-identification have changed in reaction to refugee immigration. The perception of the new minority group is measured by concern about immigration, while the relation to the majority group is assessed by self-reported discrimination and identification with the host country. Feelings towards the own ethnic group are measured by the extent of identification with the country of origin. Focusing on the Polish- and Turkish-origin populations in Germany has the advantage that their cultural distance to the newly arrived refugees differs. Poles share a closer cultural bond with the German majority in terms of religion, as both groups are predominantly Christian. In contrast, the majority of Turks are Muslim and thus culturally closer to the refugees, many of whom fled from Muslim-majority countries.

2.3 Immigration and ethnic boundaries

The shifting and blurring of ethnic boundaries has attracted increasing attention in recent years. However, only a limited number of US-based studies have analyzed how the arrival of a new immigrant group affects existing ethnic boundaries. First, Abascal (2015) found in an experiment about Black-White relations that perceived Hispanic population growth leads to the prioritizing of the privileged identity for both Blacks (American identity) and Whites (White identity) and to an exclusion of the new group. Apparently, the lower status of the Hispanic group motivated Blacks to distinguish themselves from Hispanics and to identify more strongly with the higher-status group. Second, focusing on the majority's perspective, Fouka and Tabellini (2021) report that Mexican immigrant population growth improved Whites' attitudes and behavior towards Blacks. The authors conclude that a relatively more "alien" group (here: Mexicans) brings the "less alien" group (here: Blacks) closer to the majority group (here: Whites). A third study explores the effects of the First Great Migration in the early 20th century, a period when a large number of African Americans migrated from the Southern United States to urban centers in the North. The study finds that previous European immigrants assimilated more strongly in areas with a higher influx of Black immigrants (Fouka, Mazumder, and Tabellini, 2022). In conclusion, there is some evidence that immigration affects ethnic boundaries, and that it is worth studying multi-group contexts. However, the previous findings have some limitations. First, the experimental results of Abascal (2015) are restricted to the identification of short-term effects. Second, the repeated cross-sectional designs on group relations in Fouka and Tabellini (2021) and

Fouka, Mazumder, and Tabellini (2022) might be biased by self-selection of immigrants, since certain immigrants tend to favor certain regions (Waldorf, Florax, and Beckhusen, 2008).

In the European context, research on this topic is still lacking. The European refugee crisis offers a unique opportunity to study the effects of population growth in a multi-group context, as an exogenous stimulus triggered this wave of immigration. First, the timing of the crisis was unexpected, and second, refugees in Germany were not able to self-select into specific regions due to a quota regulation for refugee allocation. This paper additionally benefits from a longitudinal survey design that can track within-person changes over time. This enables the exploitation of both temporal and regional variation in refugee immigration. In contrast to most previous studies on the European refugee crisis, this paper shifts the focus of interest from the majority to the minorities' view and examines how the largest minority groups in Germany, i.e. persons of Turkish or Polish origin, have responded to the influx of refugees.

3 Theories: Reactions to the arrival of refugees

3.1 Concern about immigration

To investigate how established minorities position themselves towards new immigrant groups, I investigate their concern about immigration. Several theories explain how proximity to or contact with immigrants affects attitudes, preferences, and behavior (for a detailed overview, see Hainmueller and Hopkins, 2014 or Esses, 2021). Whereas *theories of threat* predict increasing anti-immigrant sentiments due to economic (Blalock, 1967; Olzak, 1994) or cultural fears (Kinder and Sears, 1981; Hainmueller and Hopkins, 2014), *contact theories* anticipate a reduction of prejudice if there are positive meeting opportunities (Allport, Clark, and Pettigrew, 1954; Paluck, Green, and Green, 2019). Research on the refugee crisis shows diverging public reactions. Whereas larger refugee numbers promoted anti-immigration votes in rural Denmark (Dustmann, Vasiljeva, and Piil Damm, 2019) and on Greek islands (Dinas et al., 2019), in Austria, contact and sustained interaction with refugees reduced right-wing populist votes (Steinmayr, 2020). In Eastern Germany, local exposure to immigrants did not affect hostile attitudes or behavior (Schaub, Gereke, and Baldassarri, 2020).

From an immigrant's perspective, group *empathy theory* suggests that immigrants who have suffered from unfair treatment sometimes feel empathy towards another unfairly treated outgroup (Sirin, Villalobos, and Valentino, 2016). However, a low position

in the ethnic hierarchy can also intensify intergroup bias (Hagendoorn, 1995). Interethnic conflict also depends on the regional level and is usually higher in metropolitan areas (Oliver and Wong, 2003). Generally, studying anti-immigration sentiments among immigrants in particular has revealed an ambivalent relationship between feelings of threat and solidarity (Meeusen, Abts, and Meuleman, 2019).

Research about the refugee crisis reports mixed evidence on immigrants' attitudes towards the new outgroup. A study among Turkish immigrants in Berlin finds an ambivalent relationship to Syrian refugees, oscillating between involvement in solidarity activities and a perceived threat to their standing in the city (Koca, 2019). Further studies have revealed rather hostile feelings towards Syrians among Germans of Turkish or Russian descent (Hamidou-Schmidt and Mayer, 2021). In addition, German-Russian immigrants ("resettlers") who were dissatisfied with the handling of the refugee crisis displayed an inclination to vote for the right-wing populist party AfD (Alternative für Deutschland) (Goerres, Mayer, and Spies, 2020).

Given the sudden and sizable inflow of refugees between 2015 and 2016, most of whom entered Germany illegally, in combination with a lack of positive interaction with refugees, I expect that refugee immigration results in increased concerns about immigration among Turks and Poles. In addition, I assume that this effect may be larger among Poles, since they may perceive refugees from majority Muslim countries as more distant from their own Christian culture.

3.2 Self-reported discrimination

To examine how refugee immigration has affected the relationship of Turks and Poles with the German majority, I investigate self-reported ethnic discrimination. This measure of discrimination might be criticized for its subjectivity, as it relies solely on the perception of the respondents and discrimination often occurs in subtle, inconspicuous ways (Citro, Dabady, and Blank, 2004). In addition, better-integrated immigrants often report higher discrimination rates (Lajevardi et al., 2020). However, this objection is less relevant for this study, since it focuses explicitly on the immigrants' perspective of their relation to the majority group. In this context, the perception of discrimination may be even more important than actual discrimination, as the subjective experience is probably more influential for the perception of ethnic boundaries.

The impact of refugee immigration on self-reported discrimination could be either positive or negative. On the one hand, refugee immigration may lead to a rise in general xenophobia among people in Germany, which might increase the overall level of

discrimination. Such spillover effects were observed on Greek islands with a large number of passing refugees (Hangartner et al., 2019). Here, xenophobia increased not only against newly arrived refugees, but also towards other Muslim minorities who had lived on the islands for generations. Similarly, earlier generations of Iranian immigrants in Germany reported feeling more threatened and discriminated during the refugee crisis than before (Sadeghi, 2019). On the other hand, the influx of a large group could also have the opposite effect: The large cultural distance of most refugees to the German majority may relativize the majority's perception of the "old foreigners", as suggested by findings from Fouka and Tabellini (2021).

Which of these mechanisms prevails in this context primarily depends on whether native Germans perceive Polish and Turkish immigrants to be similar to the refugees. Due to their longer residency in Germany, Poles and Turks speak the German language better than the recently arrived refugees. Poles also differ from the refugees in their religion as another salient characteristic, whereas Turks come from a majority Muslim country. Since language is one of the most salient features for being perceived as German, I rather expect a decrease in discrimination for both immigrant groups in reaction to refugee immigration.

3.3 National and ethnic identity

In addition to group relations, this study examines how the group identification of previous immigrants has changed in reaction to refugee immigration. The arrival of a large group of new immigrants presents the opportunity for previous immigrants to reposition themselves in a changing ethnic landscape. According to *social identity theory*, individuals are in general motivated to achieve a better social position (Tajfel, 1982; Tajfel and Turner, 1986). A positive social identity arises from a favorable comparison of one's ingroup to the outgroups. Conversely, negative social identity encourages the pursuit of change – for instance, through individual upward mobility or a more positive standing of the current ingroup by using another outgroup for social comparison. A further development of this theory defines the utility of identifying with a group as dependent on the expected material payoff, the perceived distance to its members, and the group status (Shayo, 2020).

Incoming refugees as a new outgroup may change the previous immigrants' individual utility of group identification. The immigrants have two options for improving their position. First, the perceived social distance to the majority group may shrink in light of the even more culturally distant group of refugees. The underlying princi-

ple here is *comparative fit*: When the frame of reference changes, new categorizations emerge if intragroup differences are perceived as smaller than intergroup differences (Turner et al., 1994). Thus, in the presence of a distant group, previous immigrants might realize how much they have in common with the majority group (Shibutani and Kwan, 1965, p. 563). This provides an incentive to more strongly identify with the higher-status majority group. I term this identification with the majority population *national identification*. A similar conceptual framework by Fouka and Tabellini (2021) predicts that the exposure to one minority leads to the recategorization of other groups when the former is perceived as more distant than the latter. Even though this framework refers to the majority's perspective, the argument can also be applied to minority groups.

A second strategy for immigrants to improve their social position is to use the incoming refugees as a new, lower-status comparison group. In this way, the ethnic group of the previous immigrants experiences a status upgrade. As a result, the *ethnic identification*, which is the bond to the country of origin, may intensify. As immigrants often have a dual identity, a combination of these two status improvement strategies is also possible (Berry, 2006; Zimmermann, Zimmermann, and Constant, 2007). Both strategies of status improvement may be pursued either consciously or subconsciously.

In addition to examining national and ethnic identity in isolation, I investigate whether there is a direct effect of refugee immigration on national and ethnic identity independent from concern about immigration and self-reported discrimination, since they may be causally related (see Figure 2). First, discrimination could mediate the causal relation between refugee immigration and identification. Studies report that perceived discrimination weakens national identity (Jasinskaja-Lahti, Liebkind, and Solheim, 2009; De Vroome, Verkuyten, and Martinovic, 2014), whereas perceived fair treatment fosters feelings of belonging (Georgiadis and Manning, 2013). At the same time, discrimination strengthens ethnic identity (Skrobanek, 2009; Verkuyten and Yildiz, 2007). According to the rejection-identification theory, the perception of being ethnically discriminated can be alleviated to some degree by an increased proximity to the own ethnic group (Schmitt and Branscombe, 2002; Branscombe, Schmitt, and Harvey, 1999). Second, concern about immigration could strengthen both national and ethnic identification. Distancing oneself from the new immigrant group might push previous immigrants either toward the more privileged majority (as reported by Abascal, 2015) or toward their own ethnic group. Including the potential mediators *concern about immigration* and *discrimination* in the models makes it possible to identify the direct effect of refugee immigration on national and ethnic identification.

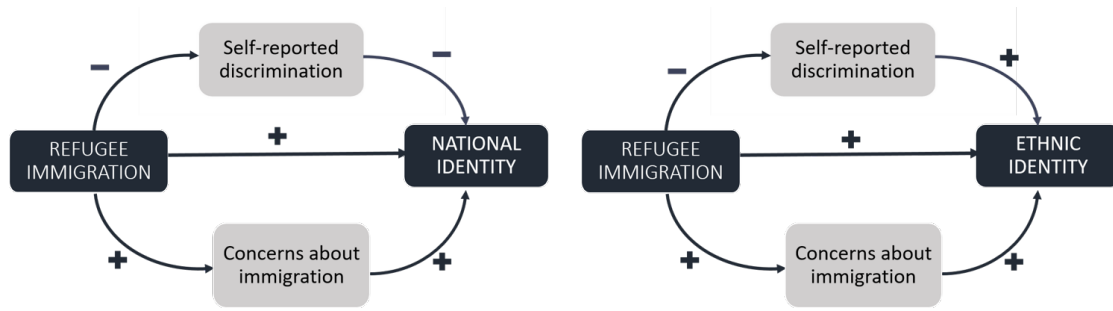


FIGURE 2: Causal models: The effect of refugee immigration on national identity (left) and ethnic identity (right). Note: Economic control variables (GDP, UR) are not displayed in the figure.

4 Empirical strategy

Analyzing the effects of refugee immigration in Germany has the major advantage that – unlike other forms of immigration – it is an exogenous stimulus for two reasons. First, the historical situation ensures temporal exogeneity, since the rise in refugee numbers in 2015 was sharp and unexpected (see again Figure 1). Thus, the residents of Germany could not foresee the exorbitant number of refugees who would be arriving in Germany. Second, refugee immigration is regionally exogenous, as refugees are not able to self-select into preferred areas. Typically, immigrants favor regions with better labor market opportunities and areas with larger shares of residents from the same country of origin (Jaeger, 2007). This self-selection complicates the analysis of the causal effects of immigration. In contrast, the distribution of refugees into the sixteen federal states in Germany is regulated by a quota system based on population size and tax revenues (Asylgesetz (AsylG), §45). Within federal states, the allocation of refugees follows individual regulations, most of which are also based on population size and economic capacity. From their initial registration, refugees receive asylum seeker benefits (Asylbewerberleistungsgesetz (AsylbLG), §1) and are obliged to reside in their designated area (AsylG, §56). In consequence, the spatial distribution of refugees is more randomized than the distribution of other migrants. Figure 3 contrasts the random regional distribution of refugees in 2015 with the distribution of foreigners living in Germany, who are spatially clustered in Western Germany and larger cities.

A spatial randomization check (see Appendix Table 3) confirms that the distribution of refugees has a much lower autocorrelation (maximum of Moran’s I per year ≈ 0.25) than the distribution of the foreign population (Moran’s I ≈ 0.56).⁴ During 2014 and

⁴Moran’s I is one of the central indicators for spatial dependence. The indicator ranges from -1 (perfect

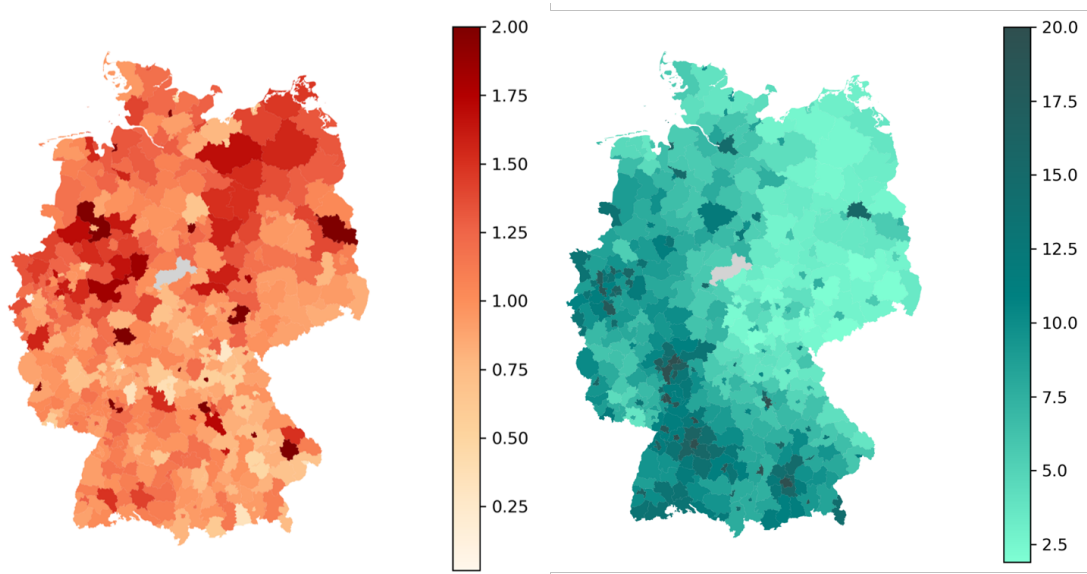


FIGURE 3: Map of refugees per county in 2015 (left, outliers >2 recoded to 2) and map of foreigners per county in 2015 (right, outliers >20 recoded to 20). Notes: Both per 100 inhabitants. Foreigners are those without German citizenship. Data: Federal Ministry of Interior. Own illustration.

2015, there is even no statistically significant autocorrelation. This spatial dependence test shows that refugee immigration is an exogenous stimulus and not driven by self-selection into specific regions. Thus, the distribution of refugees across Germany is quasi-random. In conclusion, the refugee immigration to Germany provides a unique research setting to study the causal impacts of immigration.

4.1 Data

This empirical analysis relies on yearly county-level data from 2012 to 2018. I combine macro data about the number of refugees, population size, and economic indicators from official registries⁵ with micro panel data concerning ethnic boundaries. The presence of refugees is measured by the county-level proportion of recipients of asylum seeker benefits in relation to the total population. The economic control variables are the unemployment rate (UR) and the Gross Domestic Product (GDP) per capita in a county. I complement the macro data by individual longitudinal data from the *Socio-Economic Panel* (2022), an annual large-scale German household survey based on

negative correlation) over 0 (no correlation) to 1 (perfect positive correlation). Therefore, values closer to zero indicate lower spatial dependency.

⁵Source: Federal and State Statistical Offices, 2021.

a random sample. A special focus lies on respondents with a migration background.⁶ My analytical sample is comprised of respondents with Turkish or Polish origin who participated in the SOEP both before and after the peak of the refugee crisis in 2015. To determine migration background, I include information on 1st and 2nd nationality, country of birth, and parents' country of birth. If at least one of these variables is Turkish (Polish), the respondent is categorized as of Turkish (Polish) origin. The final sample consists of 676 respondents of Turkish origin and 513 respondents of Polish origin over the observation period. The majority of both groups are first-generation immigrants (Turkish: 63%, Polish: 90%, see Appendix, Table 1).

The outcome variables are concern about immigration, self-reported discrimination, and national and ethnic identity. I reverse the original scale of all items for a more intuitive understanding and report only the reversed version here (for the original wording, see Appendix, Table 2). Concern about immigration to Germany is measured yearly by the question "Are you concerned about immigration to Germany?" with three response categories 1 "Not concerned", 2 "Somewhat concerned", 3 "Very concerned".⁷ Self-reported discrimination is assessed in odd-numbered years (2013, 2015, 2017) with the question "How often have you personally had the experience of being discriminated against here in Germany because of your origin within the last two years?" The response categories are 1 "Never", 2 "Rarely", and 3 "Frequently". National identity is measured by the question "How much do you feel like a German?" and ethnic identity by the question "How strongly do you feel connected to your country of origin?". Both identity questions are asked in even-numbered years (2012, 2014, 2016, 2018) and range from 1 "Not at all" to 5 "Fully" / "Very strongly". I impute the missing years of the variables on discrimination and identity by linear interpolation. The final sample consists of $n = 2,914$ person-years for Turkish-origin and $n = 2,141$ for Polish-origin immigrants.

4.2 Methods

The first part of the analysis consists of the interpretation of descriptive trend graphs. The exogenous nature of the refugee immigration allows for the comparison of group relations before, during, and after the peak of the refugee crisis. The largest influx of newly registered refugees was recorded in the second half of 2015 and the first half

⁶My analysis sample also includes two special migrations samples M1 and M2 (*IAB-SOEP Migration Samples (M1, M2) 2022*) drawn from administrative records of the Institute of Employment Research (IAB) (Brücker et al., 2014).

⁷The wording of the question captures both saliency and negativity towards immigration, as Lancee and Pardos-Prado (2013) and Kratz (2021) argue.

of 2016. Person-years from the period before this peak serve as a control group. This analysis aims to capture potential nation-wide trends. It thereby acknowledges that changes may have occurred in response to national political discourse and national media coverage.

In the descriptive analysis, I differentiate not only between ethnicities but also between immigrant groups by generation and time of immigration (i.e., immigration before 1990, immigration during/after 1990) to capture potential heterogeneous effects. Especially with regard to group identification, differences between immigrant generations are likely. Assimilation theory states that immigrants gradually adapt to the host society and take on its identity, sometimes over generations (Gordon, 1964), although research has shown that this process is complex and context-dependent (Esser, 2004; Portes and Zhou, 1993; Alba and Nee, 1997). However, the data used for the current study is somewhat limited with regard to the distinction of immigration generations, since 90 percent of the respondents of Polish origin in the sample are first-generation immigrants. In contrast, the respondents of Turkish origin are more often second-generation (37%).

To support the descriptive analysis, individual fixed effects (FE) regressions compare trends across regions with different levels of refugee immigration. In this framework, counties with high levels of refugee immigration act as a treatment group, while counties with lower levels of refugee immigration serve as the control group. This way, the analysis accounts for potential regional effects, which may arise from direct contact with refugees in the community or from the influence of regional news coverage.

As the descriptive analysis will demonstrate, the levels of certain outcome variables differ between immigrant groups, whereas the trends are relatively similar across these groups. Since FE regressions only consider changes within a variable over time, while ignoring the level, I only distinguish by ethnicity and combine all immigrant generations in the FE analyses. This grouping also has the advantage of achieving higher statistical power. I run separate FE regressions for the four outcome variables to estimate the total causal effect of an increased presence of refugees on each outcome. Due to the research design, only a few control variables are necessary. Since the share of refugees in a county is an exogenous treatment, individual characteristics of respondents will not bias the analysis. Among county-specific characteristics, only time-variant confounders are included, because FE models inherently control for all time-constant characteristics.

Regional economic factors are time-variant and possibly confounders in this context, as both the unemployment rate (UR) and gross domestic product (GDP) might influence both treatment and outcome variables. Since UR and GDP impact anti-

immigrant sentiments among natives and immigrants alike (Diaz, Saenz, and Kwan, 2011), this could transfer to both concern about immigration and discrimination. Further, being employed is associated with higher national identification among immigrants (De Vroome, Verkuyten, and Martinovic, 2014). Yet, research on the integration paradox points in the opposite direction: Higher economic position can lower migrants' sense of national belonging (Geurts, Lubbers, and Spierings, 2020). Either way, economic factors may impact identification. At the same time, the allocation of refugees based on the German quota regulations depends on population size and economic factors in a region (AsylG, §45). Therefore, I control for the local unemployment rate and GDP per capita in all models.

Another reason for including controls is a correlation between the composition of individual characteristics in a county and the share of refugees. However, this is very unlikely in Germany due to an external regional allocation of refugees based on population size (for which I account by using the share of refugees rather than absolute numbers) and economic factors (for which I account by controlling unemployment rate and GDP).

Note that the highest number of refugees arrived in Germany in the second half of 2015, but most interviews took place in the first half of 2015. Therefore, the FE-estimations are likely to underestimate the effect of refugee immigration. Since the treatment of refugee immigration is clustered at the county level, I use cluster-robust standard errors (Abadie et al., 2017). The number of counties (Turkish: 143, Polish: 178) is high enough to yield unbiased estimates (see Angrist and Pischke, 2008, Chapter 8). To increase the statistical power of the FE-models, I include not only respondents who remained in the same county, but also those who moved between counties, using unnested models for the main analysis. I also use two FE-models for all outcome variables. First, the linear treatment (T1) is a simple and straightforward model, that is easy to interpret. In the second model (T2), the treatment is split into quartiles to make it robust against outliers and to account for potential non-linear effects.

5 Results

5.1 Main analysis

The trend graphs (Figure 4) show a steady increase in concern about immigration from 2012 to 2016 across both ethnicities and all immigrant groups. Among Poles, this trend is even stronger. Concerns peak at the height of the refugee crisis, then decrease again.

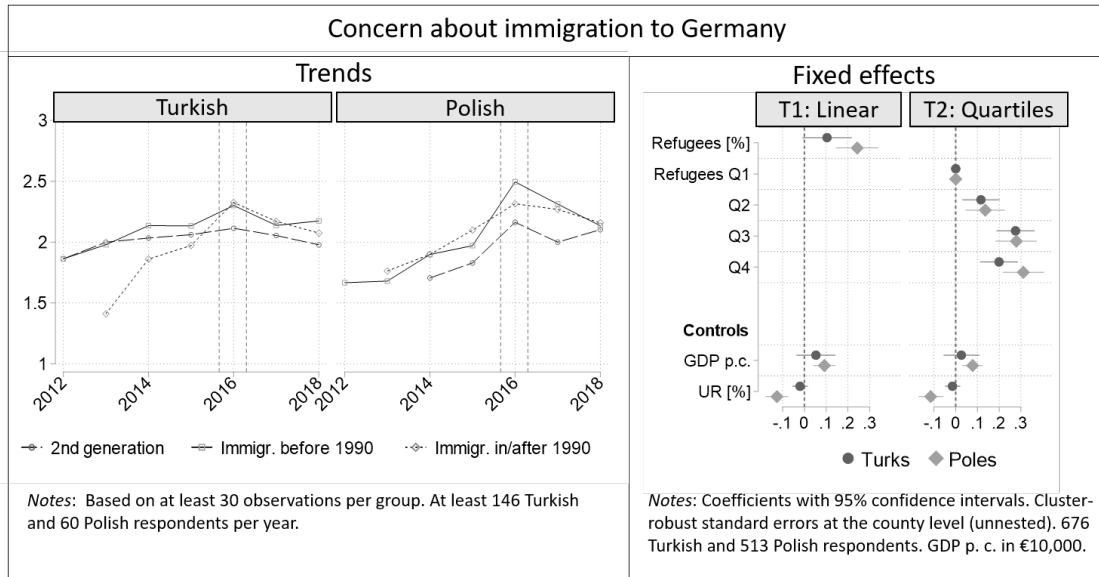


FIGURE 4: Left panel: Mean of concern about immigration on a scale from 1 (low) to 3 (high). Right panel: FE regressions of refugees in a county (share of total population) (T1) as linear treatment and (T2) in quartiles on concern about immigration.

Both models of the FE regressions confirm these trends at the county level: Refugee immigration increased concerns about immigration substantially (full results in Table 4 in the Appendix). The linear model T1 shows that a one percentage-point higher share of refugees in a county increased concerns among Turks by 0.1 ($p < 0.1$) and Poles even by 0.2 points on a 3-point-scale ($p < 0.01$). This result is confirmed by the quartile-model T2, where both immigrant groups show highly statistically significant positive effects. This finding is in line with the threat hypothesis. The fact that Poles grow more concerned than Turks indicates that religion might be a relevant underlying factor. I will analyze the role of religion in a further analysis below.

The second outcome variable is self-reported discrimination. The trend graphs (Figure 5) show a decrease in discrimination among Turks from 2013 to 2015, followed by a substantial increase. Apparently, Turks felt less discriminated against shortly before the peak of the refugee crisis. However, this seemed to be rather a short-term effect. In contrast, Poles reported decreasing discrimination over time. The FE models reveal that an increasing presence of refugees in a county lead to a decrease in self-reported discrimination in both immigrant groups (Figure 5, Table 4), and that this effect is stronger for Turks ($\beta_{Turk} = -0.12$, $p < 0.05$; $\beta_{Pole} = -0.06$, $p < 0.05$). Therefore, earlier generations of immigrants did not seem to perceive a rise in general xenophobia in reaction to refugee

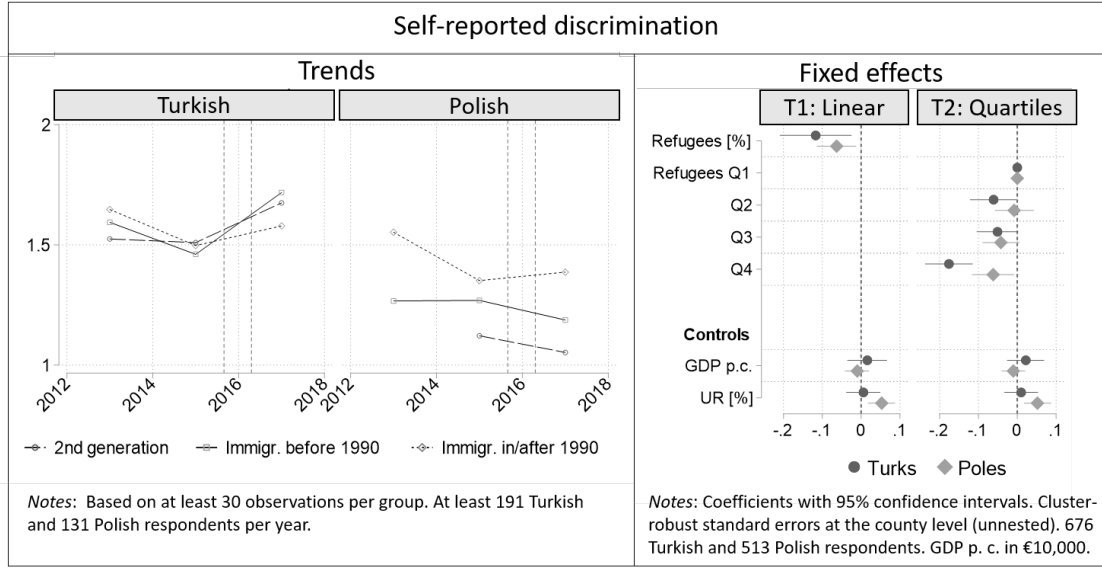


FIGURE 5: Left panel: Mean of self-reported discrimination on a scale from 1 (never) to 3 (frequent). Right panel: FE regressions of refugees in a county (share of total population) (T1) as linear treatment and (T2) in quartiles on self-reported discrimination.

immigration. On the contrary, both Turks and Poles feel less discriminated in the short term. This finding is compatible with the hypothesis that Germans perceive refugees as more culturally distant than Turkish and Polish immigrants.

The trend graphs of national identification (Figure 6) show substantial level differences between immigrant groups. On average, Polish respondents feel more German than Turkish respondents. Among both ethnicities, second generations identify more strongly as Germans than first generation immigrants, and those who immigrated earlier feel more German than the later immigrants. Turkish 1st generation immigrants show a slight increase in national identity towards the peak of the refugee crisis. A similar trend is observed among Polish 2nd generation immigrants and later immigrants. The FE regressions (M3.1, Figure 6, Table 5) tentatively confirm these findings. Whereas the linear model does not find statistically significant effects of refugee immigration on Turks, the quartile model shows a significant positive effect of the fourth quartile on national identity at the 10%-level ($\beta_{Turk} = 0.1$, $p < 0.1$). In contrast, the linear model finds a significant positive effect for Poles ($\beta_{Pole} = 0.08$, $p < 0.05$), but no significant effects in the quartile model. Thus, the results show a tendency that refugee immigration makes earlier immigrants feel more German. This is in line with the hypothesis that Turks and Poles used the opportunity of the refugee crisis to improve their perceived

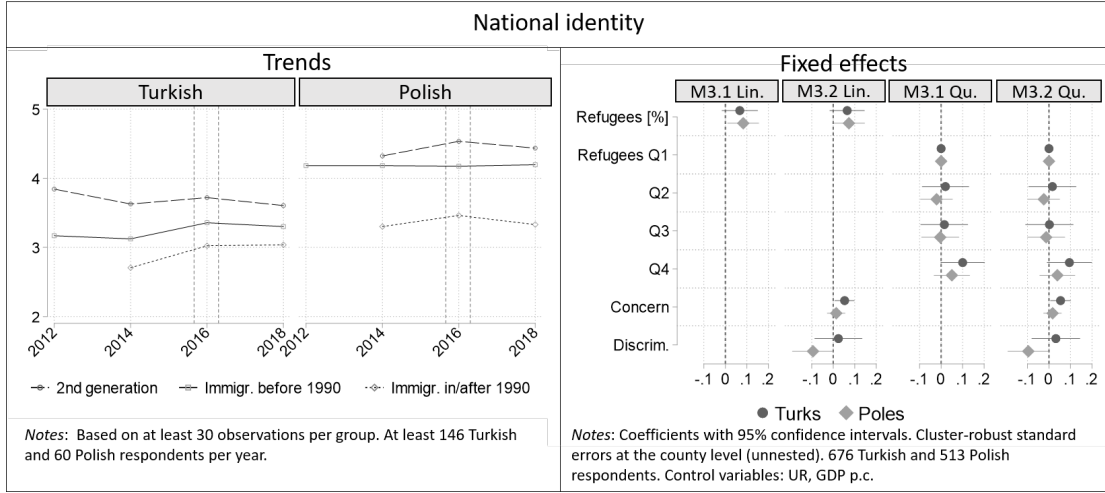


FIGURE 6: Left panel: Mean of national identity on a scale from 1 (low) to 5 (high). Right panel: FE regressions of refugees in a county (share of total population) as linear treatment and in quartiles on national identification. M3.1 measures the total effect, M3.2 the direct effect of refugee immigration.

social position. I will further test the robustness of these effects below.

As the full model shows (M3.2), the direct effects of refugee immigration on national identity (net of concern about immigration and discrimination) are only slightly smaller. Since the effect of immigration remains rather stable across the two models, concern about immigration and self-reported discrimination do not seem to be important mediators.

The level of ethnic identification also differs between ethnicities (Figure 7). The feeling of belonging to the country of origin is considerably lower among Polish respondents. The pattern observed across immigrant generations for national identification is reversed when it comes to ethnic identification: Second immigrant generations feel the weakest connection to their country of origin, earlier immigrants a somewhat stronger connection, and later immigrants the strongest connection. Turkish 2nd generation immigrants felt increasingly connected to their country of origin towards the peak of refugee immigration, whereas Turkish 1st generation immigrants show a flat trend. After 2016, all Turkish immigrant groups report a decreasing ethnic identity. Pooling all immigrant groups together, the FE-models (Figure 7, Table 6) confirm that refugee immigration to a county caused an increase in ethnic identity among Turkish respondents, with the quartile model showing substantial and highly statistically significant effects especially for the third quartile (Q3: $\beta_{Turk} = 0.13$, $p < 0.01$). This supports

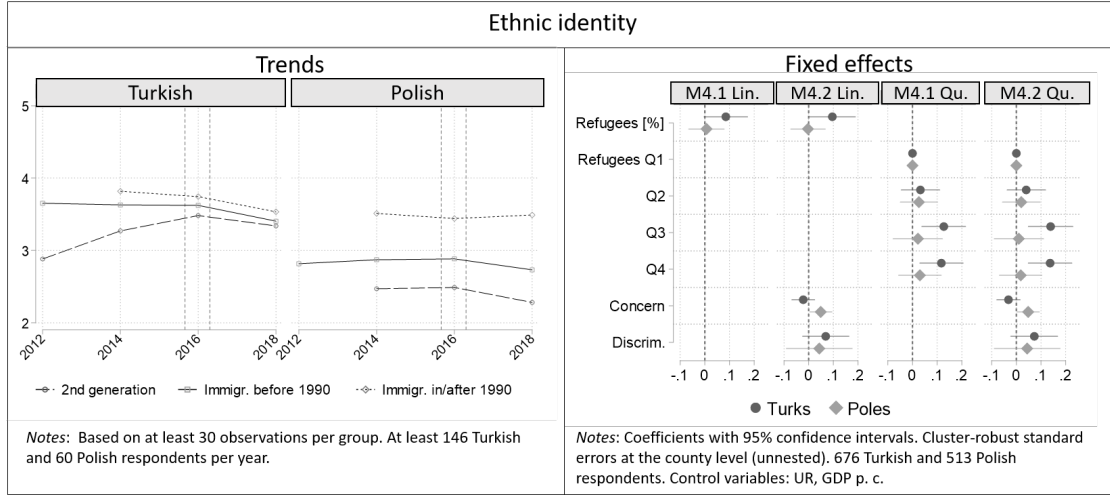


FIGURE 7: Left panel: Mean of ethnic identity on a scale from 1 (low) to 5 (high). Right panel: FE regressions of refugees in a county (share of total population) as linear treatment and in quartiles on ethnic identification. M4.1 measures the total effect, M4.2 the direct effect of refugee immigration.

the assumption that earlier generations of immigrants might use the new outgroup of refugees as a new lower-status comparison group, which allows them to elevate their own ethnicity and strengthen their ethnic ties. The direct effect of refugee immigration (M4.2) has a similar magnitude to the total effect. Again, concern about immigration and discrimination do not seem to be relevant mediators. In contrast to the Turkish respondents, the trend of ethnic identity among Polish individuals remains relatively flat. Furthermore, the fixed-effects models do not reveal any significant impact of refugee immigration on ethnic identity. Therefore, it appears that Poles have not strengthened their ethnic ties in response to refugee immigration.

5.2 Robustness checks and panel attrition

To check the robustness of these results, I test several alternative linear FE specifications (Table 7 and 8 in the Appendix). The alternative models include variations in clustering (model R1, R3), the inclusion or exclusion of respondents who moved between counties (R2), and clustering at the interviewer level (R4). These variations show how some rather technical choices in model specifications influence the results. In addition, I investigate the roles of outliers by excluding observations with the highest and lowest percentile in the refugee variable (R5). Further, I use a reduced sample including only

the years 2014 to 2016 to examine whether the effects are still evident when comparing a short time before and after the peak of refugee immigration.

The robustness checks confirm the direction and magnitude of the effects in most specifications. The estimations on concern about immigration and discrimination are rather robust for both ethnicities. The same holds for national identity among Polish and ethnic identity among Turkish respondents. Only the effect of refugee immigration on the national identification of Turks is slightly unstable and often only statistically significant at the 10%-level. This can be interpreted as a tendency that should be further investigated in future research. Deviations in the magnitude of effects are found in the model in which the outliers are excluded (R5). Since the effect sizes are stronger here than in the other models, this suggests that the outliers may distort the main results to some degree. Therefore, the main models rather underestimate the effect of refugee immigration.

A further potential bias that might threaten longitudinal analyses in general is panel attrition. Panel attrition is problematic only if it results from an endogenous selection bias, that is if both treatment and outcome variable affect response behavior (Elwert and Winship, 2014). To counteract this threat, I restrict my sample to respondents who participated before *and* after the peak of refugee immigration. The continuous observation precludes that respondents with certain values on the outcome variables leave the panel earlier. In addition, the use of fixed effects regressions allows for gaps in the panel.

5.3 Additional analyses: Role of religion and acculturation strategies

As mentioned above, religion marks a bright boundary between Christians and Muslims in Europe. Thus, some of the differences between Turkish and Polish respondents might be related to their different religions. A further analysis (see Table 9 in the Appendix) suggests that Christians feel indeed more threatened by refugees from majority Muslim countries. In addition, the effects of refugee immigration on national identity are stronger for religious respondents. The reasons for this can only be speculated.

Another additional analysis concerns acculturation strategies. Since Turkish immigrants demonstrated a tendency for increased national *and* ethnic identification in reaction to refugee immigration, one might wonder if these changes occur within the same person. Thus far, national and ethnic identification have been examined in separate analytical models. In contrast, the study of acculturation strategies combines information on national and ethnic identification in one model (see Berry, 1997). The results show

that among respondents of Turkish origin, refugee immigration increases the probability of integration (high national and high ethnic identification) and decreases the probability of marginalization (low national and low ethnic identification) (see Table 10 in the Appendix). In other words, the increase in ethnic and national identification in fact occurs within the same persons. Respondents of Polish origin show similar acculturation patterns with a tendency to increased integration and a clear reduction of marginalization.

6 Discussion and conclusion

These analyses show that refugee immigration affects intergroup relations and group identification of earlier generations of immigrants in Germany in various ways. The arrival of refugees leads to increasing concern among respondents of Turkish or Polish origin. Thus, former immigrants seem to follow an exclusion strategy towards the new outgroup, which confirms the findings from Abascal (2015). Christian respondents apparently feel even more threatened by the new immigrants than Muslims, suggesting that feelings of cultural threat might be crucial in this context. Furthermore, refugee immigration decreases self-reported discrimination for both Turkish and Polish respondents. However, whereas respondents of Polish origin report less discrimination also after the peak of the refugee crisis, this effect seems short-lived for respondents of Turkish origin. In addition, Polish respondents feel more German in reaction to refugee immigration, but not closer to Poland. Turkish respondents show a tendency for an increased national identification and also feel more connected to Turkey at the same time. Taken together, decreasing self-reported discrimination and increasing national identification indicate that previous immigrants feel closer to the majority population in reaction to a rising number of refugees. These findings support the hypothesis that previous immigrants use this opportunity to improve their perceived social position by strengthening the ties to the majority group. In addition, Turks also strengthen their ethnic ties, thus following a dual strategy of improving their position. In terms of acculturation outcomes, this dual process is equivalent to an increase in integration and a decrease in marginalization.

One limitation of this study is that the attitudes towards refugees are measured only indirectly by concern about immigration. It would be interesting to investigate how attitudes and policy preferences of previous migrants towards refugees develop over time in more detail. Furthermore, this study treats refugees as one homogenous group, even though they have fled from various countries and have diverse ethnic and reli-

gious backgrounds (BAMF, 2016a, pp. 24–25). It is possible that previous immigrants have different attitudes toward different countries of origin or towards different religions. However, the outgroup homogeneity effect justifies the assumption that refugees are perceived as more alike than they actually are (Simon, 1992). This tendency to perceive more homogeneity in the outgroup than in the ingroup is even stronger when the outgroup is smaller than the ingroup. Since both Poles and Turks represent larger ethnic groups than the incoming refugees, the outgroup homogeneity effect may play a relevant role in this context.

A further limitation is that events coinciding with the steep increase in refugee migration may also impact some of the outcome variables. One major event was the Paris terrorist attack in November of 2015, which had negative effects on attitudes towards immigrants, at least in the short term (Ferrín, Mancosu, and Cappiali, 2020). This might also have increased concerns among Turks and Poles. As a further possible effect of the terrorist attack, Turks as a majority Muslim group may have experienced more discrimination and subsequently re-oriented more strongly towards their own ethnic group in response. A similar effect was found in the wake of the 9/11 terrorist attacks, when increasing discrimination of Muslim immigrants in the labor market was observed (Rabby and Rodgers, 2011) and “contagious animosity” towards Hispanics occurred in the criminal justice system (McConnell and Rasul, 2021). In the long run, increased discrimination might have contributed to the fact that assimilation to the majority population decreased among Muslims (Gould and Klor, 2014). It is impossible to disentangle the effects of these coinciding events from the effect of refugee immigration. However, my design renders a bias unlikely, as my analysis also includes regional effects. If there was a national effect of the terrorist attacks, this would not have impacted counties differently. Since I analyze counties with varying numbers of refugee arrivals per county, counties with lower refugee immigration function as a control group.

In sum, this study shows that new waves of immigration can affect group relations and the identification of previous immigrants in various ways. These findings therefore highlight the importance of analyzing multi-group contexts. The results of this study can be interpreted as a first indicator of changing ethnic boundaries: Poles more closely identify with Germans and distance themselves from outsiders, while Turks follow a twofold strategy: strengthening ties with both Germans and other Turks. This twofold strategy is equivalent to Berry’s concept of integration and has shown the best psychological and sociocultural adaptation outcomes (Berry, 2006).

However, to evaluate whether ethnic boundaries have in fact changed, it is necessary to include the majority’s perspective. Only if the ingroup’s and outgroup’s per-

ception of boundaries coincide, can ethnic boundaries be changed. Thus, this study provides only a first indication from the viewpoint of Turkish and Polish immigrants in Germany. Future research should analyze whether the majority population feels similarly. Fouka and Tabellini (2021) provide a first indication that corresponding mechanisms can be found among members of the majority group, since Mexican immigrant population growth in the US improved White Americans' attitudes and behavior towards Blacks. In addition, researchers should study various national and ethnic contexts and explore the specific conditions under which group relations and group identifications change in reaction to immigration.

Appendix

A Descriptive statistics

TABLE 1: Descriptive statistics. 676 respondents of Turkish origin and 513 respondents of Polish origin.

	Turkish				Polish			
	mean	SD	Min	Max	Mean	SD	Min	Max
SOEP Data								
Concerns immigr.	2.06	0.76	1	3	2.09	0.74	1	3
Discrimination	1.60	0.62	1	3	1.31	0.50	1	3
National identity	3.29	1.07	1	5	3.81	1.03	1	5
Ethnic identity	3.54	1.07	1	5	3.09	1.11	1	5
Gender: female	0.50	0.50	0	1	0.61	0.49	0	1
Age (years)	40.01	12.77	18	86	43.59	13.08	19	85
Region: East	0.01	0.10	0	1	0.09	0.28	0	1
No religion	0.17	0.38	0	1	0.13	0.33	0	1
Christian	0.03	0.18	0	1	0.87	0.33	0	1
Muslim	0.79	0.41	0	1	0.00	0.00	0	0
Indirect mig. backgr.	0.37	0.48	0	1	0.10	0.30	0	1
Macro Data								
Refugees p. 100 inhab.	0.67	0.43	0.02	7.63	0.68	0.39	0.04	6.34
GDP p.c. in 100,000	0.43	0.20	0.18	1.82	0.38	0.15	0.18	1.82
UR in %	7.05	2.79	1.30	14.70	6.58	2.81	1.7	16.4

B Original survey questions in German

TABLE 2: GSOEP question wording and response options

Concept	Question	Response options
Concern about immigration	„Wie ist es mit den folgenden Gebieten - machen Sie sich da Sorgen? [...] Über die Zuwanderung nach Deutschland“	1 „Große Sorgen“ 2 „Einige Sorgen“ 3 „Keine Sorgen“
Discrimination	„Wie häufig haben Sie persönlich innerhalb der letzten beiden Jahre die Erfahrung gemacht, hier in Deutschland aufgrund Ihrer Herkunft benachteiligt worden zu sein?“	1 „Häufig“ 2 „Selten“ 3 „Nie“
National identity	„Wie sehr fühlen Sie sich als Deutscher/Deutsche?“	1 „Voll und ganz“ 2 „Überwiegend“ 3 „In mancher Beziehung“ 4 „Kaum“ 5 „Gar nicht“
Ethnic identity	„Und wie sehr fühlen Sie sich mit Ihrem Herkunftsland verbunden?“	1 „Sehr stark“ 2 „Stark“ 3 „In mancher Beziehung“ 4 „Kaum“ 5 „Gar nicht“

Sources:

- SOEP Group, 2019. SOEP-Core – 2017: Person (PAPI, mit Verweis auf Variablen). SOEP Survey Papers 681: Series A – Survey Instruments (Erhebungsinstrumente). Berlin: DIW Berlin/SOEP
- SOEP Group, 2020. SOEP-Core – 2018: Person (PAPI, mit Verweis auf Variablen). SOEP Survey Papers 791: Series A – Survey Instruments (Erhebungsinstrumente). Berlin: DIW Berlin/SOEP

C Spatial autocorrelation tests

TABLE 3: Spatial autocorrelation tests among refugees and foreigners.
Notes: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Weight matrices based on queen contiguity definition.

Years	Moran's I	
	Refugees in county	Foreigners in county
2012	0.202**	0.507**
2013	0.187**	0.501**
2014	0.051*	0.497**
2015	0.015	0.464**
2016	0.249**	0.443**
2017	0.103**	0.419**
2018	0.082**	0.421**

The first step of this randomization check consists of calculating a spatial weighting matrix that specifies for each county-pair if these two counties are neighbors. I use the “queen contiguity” specification for the weighting matrix, which defines all adjacent counties as neighbors (common edge or common vertex, reflecting the queen’s direction of movements in chess). Second, based on the spatial weights matrix, I determined Moran’s I, one of the central indicators for spatial dependence. The indicator ranges from -1 (perfect negative correlation) over 0 (no correlation) to 1 (perfect positive correlation). Therefore, values closer to zero indicate lower spatial dependency.

D Regression results

D.1 Regression results: Concern about immigration and self-reported discrimination

TABLE 4: Regression results underlying Fig. 4 and Fig. 5. Fixed effects regressions of refugees in a county (share of total population) (T1) as a linear treatment and (T2) in quartiles on concern about immigration (M1) and self-reported discrimination (M2). Cluster-robust standard errors at the county level (unnested). 676 Turkish and 513 Polish respondents.

Notes: Standard errors in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

	Concern		Discrimination	
	M1		M2	
	<i>Turk.</i>	<i>Pol.</i>	<i>Turk.</i>	<i>Pol.</i>
(T1) Linear treatment				
Refugees [%]	0.104*	0.243***	−0.117**	−0.063**
	(0.057)	(0.049)	(0.047)	(0.025)
GDP [10,000€]	0.053	0.092***	0.016	−0.01
	(0.045)	(0.025)	(0.026)	(0.015)
Unempl. rate	−0.02	−0.126***	0.006	0.053***
	(0.018)	(0.026)	(0.022)	(0.017)
(T2) Refugees in quartiles (ref. Q1)				
Q2	0.116***	0.136***	−0.061**	−0.008
	(0.043)	(0.045)	(0.03)	(0.025)
Q3	0.275***	0.279***	−0.051*	−0.042*
	(0.044)	(0.048)	(0.027)	(0.024)
Q4	0.199***	0.311***	−0.176***	−0.062**
	(0.043)	(0.048)	(0.031)	(0.028)
GDP [10,000€]	0.026	0.078***	0.022	−0.01
	(0.041)	(0.023)	(0.024)	(0.015)
Unempl. rate	−0.015	−0.115***	0.01	0.052***
	(0.017)	(0.028)	(0.022)	(0.017)

D.2 Regression results: National identity and ethnic identity

TABLE 5: Regression results underlying Fig. 6. Fixed effects regressions of refugees in a county (share of total population) (T1) as a linear treatment and (T2) in quartiles on national identity (M3.1, M3.2). Cluster-robust standard errors at the county level (unnested). 676 Turkish and 513 Polish respondents. Notes: Standard errors in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

	National identity			
	M3.1		M3.2	
	<i>Turk</i>	<i>Pole</i>	<i>Turk</i>	<i>Pole</i>
(T1) Linear treatment				
Refugees [%]	0.067 (0.042)	0.083** (0.037)	0.065 (0.041)	0.073** (0.037)
GDP [10,000€]	0.042 (0.049)	−0.008 (0.02)	0.039 (0.049)	−0.01 (0.02)
Unempl. rate	−0.021 (0.032)	−0.006 (0.018)	−0.02 (0.032)	0.001 (0.018)
Concern immigr.			0.053** (0.023)	0.014 (0.021)
Discrimination			0.024 (0.055)	−0.094* (0.048)
(T2) Refugees in quartiles (ref. Q1)				
Q2	0.02 (0.055)	−0.021 (0.038)	0.016 (0.056)	−0.024 (0.038)
Q3	0.015 (0.056)	−0.004 (0.044)	0.002 (0.056)	−0.013 (0.044)
Q4	0.1* (0.052)	0.05 (0.042)	0.095* (0.053)	0.039 (0.042)
GDP [10,000€]	0.041 (0.048)	−0.004 (0.02)	0.039 (0.049)	−0.006 (0.02)
Unempl. rate	−0.025 (0.032)	−0.009 (0.019)	−0.024 (0.031)	−0.003 (0.019)
Concern immigr.			0.054** (0.024)	0.017 (0.021)
Discrimination			0.032 (0.057)	−0.096** (0.048)

TABLE 6: Regression results underlying Fig. 7. Fixed effects regressions of refugees in a county (share of total population) (T1) as a linear treatment and (T2) in quartiles on national identity (M4.1, M4.2). Cluster-robust standard errors at the county level (unnested). 676 Turkish and 513 Polish respondents. Notes: Standard errors in parentheses, *p<0.1, **p<0.05, ***p<0.01.

	Ethnic identity			
	M4.1 <i>Turk</i>	<i>Pole</i>	M4.2 <i>Turk</i>	<i>Pole</i>
(T1) Linear treatment				
Refugees [%]	0.085* (0.045)	0.007 (0.037)	0.096** (0.048)	−0.003 (0.036)
GDP [10,000€]	−0.007 (0.03)	−0.042* (0.024)	−0.007 (0.029)	−0.046* (0.023)
Unempl. rate	0.045* (0.026)	0.001 (0.022)	0.045* (0.026)	0.005 (0.023)
Concern immigr.			−0.022 (0.024)	0.049** (0.023)
Discrimination			0.069 (0.048)	0.043 (0.068)
(T2) Refugees in quartiles (ref. Q1)				
Q2	0.032 (0.04)	0.026 (0.039)	0.04 (0.04)	0.02 (0.039)
Q3	0.127*** (0.045)	0.022 (0.051)	0.139*** (0.046)	0.01 (0.051)
Q4	0.117** (0.045)	0.03 (0.044)	0.137*** (0.045)	0.018 (0.044)
GDP [10,000€]	−0.016 (0.03)	−0.043* (0.023)	−0.017 (0.029)	−0.046** (0.023)
Unempl. rate	0.046* (0.026)	0.002 (0.022)	0.045* (0.026)	0.006 (0.023)
Concern immigr.			−0.032 (0.024)	0.048** (0.023)
Discrimination			0.073 (0.048)	0.044 (0.068)

E Robustness checks

E.1 Results of robustness checks

TABLE 7: Results of robustness checks. Control variables in all models: unemployment rate and GDP. *p<0.1, **p<0.05, ***p<0.01.

		Concern		Discrimination		National ident.		Ethnic identity	
		M1		M2		M3.1		M4.1	
		<i>Turk.</i>	<i>Pol.</i>	<i>Turk.</i>	<i>Pol.</i>	<i>Turk.</i>	<i>Pol.</i>	<i>Turk.</i>	<i>Pol.</i>
R1	No clustering	0.10***	0.24***	−0.12 ***	−0.06 ***	0.07**	0.08**	0.09**	0.01
R2	No clustering, no movers	0.09**	0.23***	−0.13 ***	−0.08 ***	0.06*	0.07*	0.08***	0.03
R3	Clustering, nested	0.09	0.23***	−0.13 **	−0.08 ***	−0.06	0.07**	0.08*	0.03
R4	Clustering interviewer	0.10**	0.24***	−0.12 ***	−0.06 ***	0.07*	0.08**	0.09**	0.01
R5	Outliers dropped	0.18***	0.30***	−0.19 ***	−0.08 **	0.10*	0.10**	0.14***	0.02
R6	Years 2014-16	0	0.06	−0.10 **	−0.05 *	0.12*	0.09***	0.05	−0.04

E.2 Details on robustness checks

TABLE 8: Details on robustness checks

				<i>Turks</i>		<i>Poles</i>	
	Sample	Cluster-robust SEs	nested	n	N	n	N
R1	full	-	-	2,914	676	2,137	513
R2	movers dropped	-	-	2,721	638	1,951	472
R3	movers dropped	county level	X	2,721	638	1,951	472
R4	full	interviewer level	-	2,914	676	2,137	513
R5	outliers dropped (lowest and highest percentile of refugees)	county level	-	2,900	676	2,124	512
R6	years 2014-2016	county level	-	1,639	650	1,130	491

F Further analyses

F.1 Grouped by religion

TABLE 9: Fixed effects regressions by religion (Muslim/Christian). Cluster-robust standard errors at the level (unnested). 509 Muslim and 468 Christian respondents. Notes: GDP in 10,000€, standard errors in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

	Concern		Discrimination		National ident.		Ethnic identity	
	M1 <i>Musl.</i>	<i>Christ.</i>	M2 <i>Musl.</i>	<i>Christ.</i>	M3.1 <i>Musl.</i>	<i>Christ.</i>	M4.1 <i>Musl.</i>	<i>Christ.</i>
Refug. [%]	0.11* (0.06)	0.27*** (0.05)	-0.12 * (0.06)	-0.08 *** (0.03)	0.11** (0.05)	0.09** (0.04)	0.08* (0.04)	0.02 (0.04)
GDP	0.06 (0.05)	0.11*** (0.02)	0.04 (0.03)	0.00 (0.02)	0.11** (0.05)	-0.01 (0.02)	0.06** (0.03)	-0.04 (0.03)
UR	-0.02 (0.02)	-0.15 *** (0.03)	-0.01 (0.03)	0.04* (0.02)	-0.06 * (0.03)	-0.01 (0.02)	0.03 (0.03)	-0.01 (0.03)

Analysis and interpretation: A high percentage of Poles in the sample are Christian (87%, see Table A1), whereas a majority of Turks are Muslim (79%). Some of the differences between Turkish and Polish respondents might therefore be rooted in their religion. In this analysis, I only include Christians ($N = 468$) and Muslims ($N = 509$) in the sample. The effects are rather similar in direction and magnitude to the main findings, when comparing Turks with Muslims and Poles with Christians. Nevertheless, some of the effects are stronger in this secondary analysis. First, concern about immigration rises slightly more strongly among Christians ($\beta_{\text{Christian}} = 0.27$, $p < 0.01$) than among Muslims ($\beta_{\text{Muslim}} = 0.11$, $p < 0.1$). Since the difference between Christians and Muslims ($\Delta_{CM} = 0.16$) is larger than between Poles and Turks ($\Delta_{PT} = 0.14$), this highlights the important role of religion in this context. Second, the effects of refugee immigration on national identity are stronger for religious respondents: The effect on Muslims ($\beta_{\text{Muslim}} = 0.11$, $p < 0.05$) is stronger than on Turks ($\beta_{\text{Turkish}} = 0.07$, $p > 0.1$); and the effect on Christians ($\beta_{\text{Christian}} = 0.09$, $p < 0.05$) is stronger than on Poles ($\beta_{\text{Polish}} = 0.08$, $p < 0.05$).

F.2 Alternative outcome: Acculturation strategies

Analysis and interpretation: Acculturation strategies combine information from the variables on national and ethnic identification. First, assimilation corresponds to a high national (>3 on a 5-point scale) and a low ethnic identification (≤ 3). Second, separation is the opposite outcome: weak national (≤ 3) and strong ethnic ties (< 3). Third, integration combines high national and high ethnic identification (both > 3). Fourth,

TABLE 10: Fixed effects regressions (linear probability models) on acculturation strategies. Cluster-robust standard errors at the county level (unnested). 676 Turkish and 513 Polish respondents. Notes: Standard errors in parentheses, *p<0.1, **p<0.05, ***p<0.01.

	Assimilation		Separation		Integration		Marginalization	
	<i>Turk.</i>	<i>Pol.</i>	<i>Turk.</i>	<i>Pol.</i>	<i>Turk.</i>	<i>Pol.</i>	<i>Turk.</i>	<i>Pol.</i>
Refug. [%]	0.00 (0.02)	0.01 (0.02)	-0.01 (0.02)	0.01 (0.01)	0.07** (0.03)	0.03* (0.02)	-0.06 ** (0.03)	-0.05 *** (0.02)
GDP	0.01 (0.01)	0.00 (0.01)	-0.02 (0.02)	0.00 (0.01)	0.01 (0.02)	-0.01 (0.01)	0.00 (0.02)	0.00 (0.01)
UR	-0.01 (0.01)	-0.01 (0.01)	0.02** (0.01)	0.00 (0.01)	-0.01 (0.01)	0.00 (0.01)	-0.01 (0.01)	0.01 (0.01)

marginalization implies weak ties to both groups (≤ 3). In this dichotomization, I follow the dummy coding of Esser (2009). The results of the linear probability models with FE show that among Turks, refugee immigration increases the probability of integration by 7 percentage points ($p < 0.05$) and decreases the probability of marginalization by 6 percentage points ($p < 0.05$), whereas the other two outcomes do not show statistically significant effects. Poles show similar acculturation patterns with an increase in integration significant at the 10-percent level ($\beta_{Polish} = 0.032$, $p < 0.1$) and a highly significant reduction of marginalization ($\beta_{Polish} = -0.05$, $p < 0.01$).

References

- Abadie, Alberto, Susan Athey, Guido W. Imbens, and Jeffrey Wooldridge (2017). "When should you adjust standard errors for clustering?" In: *Working Paper National Bureau of Economic Research*.
- Abascal, Maria (2015). "Us and them: Black-White relations in the wake of Hispanic population growth". In: *American Sociological Review* 80.4, pp. 789–813. ISSN: 0003-1224.
- Alba, Richard (2005). "Bright vs. blurred boundaries. Second-generation assimilation and exclusion in France, Germany, and the United States". In: *Ethnic and racial studies* 28.1, pp. 20–49. ISSN: 0141-9870.
- Alba, Richard and Victor Nee (1997). "Rethinking assimilation theory for a new era of immigration". In: *International migration review* 31.4, pp. 826–874. ISSN: 0197-9183.
- Allport, Gordon Willard, Kenneth Clark, and Thomas Pettigrew (1954). *The nature of prejudice*. Reading, Massachusetts: Addison-Wesley Publishing Company.
- Altschul, Inna, Daphna Oyserman, and Deborah Bybee (2006). "Racial-ethnic identity in mid-adolescence. Content and change as predictors of academic achievement". In: *Child Development* 77.5, pp. 1155–1169. ISSN: 0009-3920.
- Angrist, Joshua D. and Jörn-Steffen Pischke (2008). *Mostly harmless econometrics*. Princeton University Press. ISBN: 1400829828.
- Arzheimer, Kai (2008). "Protest, neo-liberalism or anti-immigrant sentiment: What motivates the voters of the extreme right in Western Europe?" In: *Zeitschrift für vergleichende Politikwissenschaft* 2.2, pp. 173–197. ISSN: 1865-2654.
- BAMF (2016a). *Das Bundesamt in Zahlen 2016*. Report. Bundesamt für Migration und Flüchtlinge. URL: <https://www.bamf.de/SharedDocs/Anlagen/DE/Statistik/BundesamtinZahlen/bundesamt-in-zahlen-2016.html?nn=284738>.
- (2016b). *Migrationsbericht des Bundesamtes für Migration und Flüchtlinge 2015*. Report. Bundesamt für Migration und Flüchtlinge. URL: <https://www.bamf.de/SharedDocs/Anlagen/DE/Forschung/Migrationsberichte/migrationsbericht-2015.html?nn=403964>.
- Berry, John W. (1997). "Immigration, Acculturation, and Adaptation". In: *Applied Psychology* 46.1, pp. 5–34. ISSN: 0269-994X. DOI: <https://doi.org/10.1111/j.1464-0597.1997.tb01087.x>. URL: <https://iaap-journals.onlinelibrary.wiley.com/doi/abs/10.1111/j.1464-0597.1997.tb01087.x>.
- (2006). "Acculturation: A conceptual overview". In: ISSN: 0805858725.

- Blalock, Hubert M. (1967). *Toward a theory of minority-group relations*. Vol. 325. New York: Wiley. ISBN: 0399502343.
- Branscombe, Nyla R., Michael T. Schmitt, and Richard D. Harvey (1999). "Perceiving pervasive discrimination among African Americans. Implications for group identification and well-being". In: *Journal of Personality and Social Psychology* 77.1, pp. 135–149.
- Brubaker, Rogers (2013). "Categories of analysis and categories of practice: A note on the study of Muslims in European countries of immigration". In: *Ethnic and Racial Studies* 36.1, pp. 1–8. ISSN: 0141-9870.
- Brücker, Herbert, Martin Kroh, Simone Bartsch, Jan Goebel, Simon Kühne, Elisabeth Liebau, Parvati Trübswetter, Ingrid Tucci, and Jürgen Schupp (2014). *The new IAB-SOEP Migration Sample. An introduction into the methodology and the contents*. Report. DIW/SOEP.
- Citro, Constance F., Marilyn Dabady, and Rebecca M. Blank (2004). *Measuring racial discrimination*. National Academies Press.
- Davenport, Lauren (2020). "The fluidity of racial classifications". In: *Annual Review of Political Science* 23, pp. 221–240. ISSN: 1094-2939.
- De Vroome, Thomas, Maykel Verkuyten, and Borja Martinovic (2014). "Host national identification of immigrants in the Netherlands". In: *International Migration Review* 48.1, pp. 1–27. ISSN: 0197-9183.
- Diaz, Priscila, Delia S. Saenz, and Virginia S. Y. Kwan (2011). "Economic dynamics and changes in attitudes toward undocumented Mexican immigrants in Arizona". In: *Analyses of Social Issues and Public Policy* 11.1, pp. 300–313. ISSN: 1529-7489.
- Dinas, Elias, Konstantinos Matakos, Dimitrios Xefteris, and Dominik Hangartner (2019). "Waking up the golden dawn: does exposure to the refugee crisis increase support for extreme-right parties?" In: *Political analysis* 27.2, pp. 244–254. ISSN: 1047-1987.
- Dustmann, Christian, Kristine Vasiljeva, and Anna Piil Damm (2019). "Refugee migration and electoral outcomes". In: *The Review of Economic Studies* 86.5, pp. 2035–2091. ISSN: 0034-6527.
- Elwert, Felix and Christopher Winship (2014). "Endogenous selection bias: The problem of conditioning on a collider variable". In: *Annual review of sociology* 40, pp. 31–53. ISSN: 0360-0572.
- Esser, Hartmut (2004). "Does the "new" immigration require a "new" theory of inter-generational integration?" In: *International migration review* 38.3, pp. 1126–1159. ISSN: 0197-9183.

- (2009). “Pluralisierung oder Assimilation? Effekte der multiplen Inklusion auf die Integration von Migranten”. In: *Zeitschrift für Soziologie* 38.5. ISSN: 0340-1804.
- Esses, Victoria M. (2021). “Prejudice and Discrimination Toward Immigrants”. In: *Annual Review of Psychology* 72, pp. 503–531. ISSN: 0066-4308.
- Ferrín, Mónica, Moreno Mancosu, and Teresa M. Cappiali (2020). “Terrorist attacks and Europeans’ attitudes towards immigrants: An experimental approach”. In: *European Journal of Political Research* 59.3, pp. 491–516. ISSN: 0304-4130.
- Fouka, Vasiliki, Soumyajit Mazumder, and Marco Tabellini (2022). “From immigrants to Americans: Race and assimilation during the Great Migration”. In: *The Review of Economic Studies* 89.2, pp. 811–842. ISSN: 0034-6527.
- Fouka, Vasiliki and Marco Tabellini (2021). “Changing Ingroup Boundaries: The Effect of Immigration on Race Relations in the U.S.” Unpublished Work. Harvard Business School BGIE Unit Working Paper No. 20-100 , Available at SSRN: <https://ssrn.com/abstract=3568154> or <http://dx.doi.org/10.2139/ssrn.3568154>.
- Georgiadis, Andreas and Alan Manning (2013). “One nation under a groove? Understanding national identity”. In: *Journal of Economic Behavior and Organization* 93, pp. 166–185. ISSN: 0167-2681.
- Geurts, Nella, Marcel Lubbers, and Niels Spierings (2020). “Structural position and relative deprivation among recent migrants: a longitudinal take on the integration paradox”. In: *Journal of Ethnic and Migration Studies* 46.9, pp. 1828–1848. ISSN: 1369-183X. DOI: [10.1080/1369183X.2019.1675499](https://doi.org/10.1080/1369183X.2019.1675499). URL: <https://doi.org/10.1080/1369183X.2019.1675499>.
- Goerres, Achim, Sabrina J. Mayer, and Dennis C. Spies (2020). “Immigrant voters against their will: A focus group analysis of identities, political issues and party allegiances among German resettlers during the 2017 Bundestag election campaign”. In: *Journal of Ethnic and Migration Studies* 46.7, pp. 1205–1222. ISSN: 1369-183X.
- Gordon, Milton Myron (1964). *Assimilation in American life: The role of race, religion, and national origins*. Oxford University Press on Demand. ISBN: 0195008960.
- Gould, Eric D. and Esteban F. Klor (2014). “The long-run effect of 9/11: Terrorism, backlash, and the assimilation of Muslim immigrants in the west”. In: *The Economic Journal* 126.597, pp. 2064–2114. ISSN: 0013-0133.
- Grote, Janne (2018). “The Changing Influx of Asylum Seekers in 2014-2016: Responses in Germany. Focussed Study by the German National Contact Point for the European Migration Network (EMN)”. In: *Working Paper of the Federal Office for Migration and Refugees* 79.

- Hagendoorn, Louk (1995). "Intergroup biases in multiple group systems: The perception of ethnic hierarchies". In: *European Review of Social Psychology* 6.1, pp. 199–228. ISSN: 1046-3283.
- Hainmueller, Jens and Daniel J. Hopkins (2014). "Public attitudes toward immigration". In: *Annual review of political science* 17, pp. 225–249. ISSN: 1094-2939.
- Hamidou-Schmidt, Hayfat and Sabrina Jasmin Mayer (2021). "The Relation Between Social Identities and Outgroup Hostility Among German Immigrant-Origin Citizens". In: *Political Psychology* 42.2, pp. 311–331. ISSN: 0162-895X.
- Hangartner, Dominik, Elias Dinas, Moritz Marbach, Konstantinos Matakos, and Dimitrios Xefteris (2019). "Does exposure to the refugee crisis make natives more hostile?" In: *American Political Science Review* 113.2, pp. 442–455. ISSN: 0003-0554.
- IAB-SOEP Migration Samples (M1, M2) (2022). In Data of the years 2013-2020. Dataset. DIW Berlin. DOI: [10.5684/soep.iab-soep-mig.2020](https://doi.org/10.5684/soep.iab-soep-mig.2020).
- Jaeger, David A. (2007). "Green cards and the location choices of immigrants in the United States, 1971–2000". In: *Immigration*. Emerald Group Publishing Limited, pp. 131–183.
- Jasinskaja-Lahti, Inga, Karmela Liebkind, and Erling Solheim (2009). "To identify or not to identify? National disidentification as an alternative reaction to perceived ethnic discrimination". In: *Applied Psychology: An International Review*. ISSN: 1464-0597.
- Kinder, Donald R. and David O. Sears (1981). "Prejudice and politics: Symbolic racism versus racial threats to the good life". In: *Journal of personality and social psychology* 40.3, p. 414. ISSN: 1939-1315.
- Koca, Burcu Togrul (2019). "Urban citizenship and the spatial encounter between Turkish migrants and Syrian refugees in Berlin". In: *Raumforschung und Raumordnung | Spatial Research and Planning* 77.6, pp. 567–581.
- Kratz, Fabian (2021). "Do concerns about immigration change after adolescence? How education and critical life events affect concerns about immigration". In: *European Sociological Review* 37.6, pp. 987–1003. ISSN: 0266-7215.
- Lajevardi, Nazita, Kassra A. R. Oskooii, Hannah L. Walker, and Aubrey L. Westfall (2020). "The Paradox between integration and perceived discrimination among American Muslims". In: *Political Psychology* 41.3, pp. 587–606. ISSN: 0162-895X.
- Lancee, Bram and Sergi Pardos-Prado (2013). "Group conflict theory in a longitudinal perspective: Analyzing the dynamic side of ethnic competition". In: *International Migration Review* 47.1, pp. 106–131. ISSN: 0197-9183.

- Mäs, Michael, Kurt Mühler, and Karl-Dieter Opp (2005). "Wann ist man deutsch? Empirische Ergebnisse eines faktoriellen Surveys". In: *KZfSS Kölner Zeitschrift für Soziologie und Sozialpsychologie* 57.1, pp. 112–134. ISSN: 1861-891X.
- McConnell, Brendon and Imran Rasul (2021). "Contagious animosity in the field: Evidence from the Federal Criminal Justice System". In: *Journal of Labor Economics* 39.3, pp. 739–785. ISSN: 0734-306X.
- Meeusen, Cecil, Koen Abts, and Bart Meuleman (2019). "Between solidarity and competitive threat?: The ambivalence of anti-immigrant attitudes among ethnic minorities". In: *International Journal of Intercultural Relations* 71, pp. 1–13. ISSN: 0147-1767.
- Nagata, Judith A. (1974). "What is a Malay? Situational selection of ethnic identity in a plural society". In: *American Ethnologist* 1.2, pp. 331–350. ISSN: 0094-0496.
- Nagel, Joane (1994). "Constructing ethnicity: Creating and recreating ethnic identity and culture". In: *Social problems* 41.1, pp. 152–176. ISSN: 0037-7791.
- OECD (2020). *Towards 2035. Strategic foresight*. Report. OECD. URL: <https://www.oecd.org/migration/mig/migration-strategic-foresight.pdf>.
- Oliver, J. Eric and Janelle Wong (2003). "Intergroup prejudice in multiethnic settings". In: *American journal of political science* 47.4, pp. 567–582. ISSN: 0092-5853.
- Olzak, Susan (1994). *The dynamics of ethnic competition and conflict*. Stanford University Press. ISBN: 0804723370.
- Paluck, Elizabeth Levy, Seth A. Green, and Donald P. Green (2019). "The contact hypothesis re-evaluated". In: *Behavioural Public Policy* 3.2, pp. 129–158. ISSN: 2398-063X.
- Portes, Alejandro and Min Zhou (1993). "The new second generation: Segmented assimilation and its variants". In: *The Annals of the American Academy of Political and Social Science* 530.1, pp. 74–96. ISSN: 0002-7162.
- Rabby, Faisal and William M. Rodgers (2011). "Post 9-11 US Muslim labor market outcomes". In: *Atlantic Economic Journal* 39.3, pp. 273–289. ISSN: 1573-9678.
- Sadeghi, Sahar (2019). "Racial boundaries, stigma, and the re-emergence of "always being foreigners": Iranians and the refugee crisis in Germany". In: *Ethnic and Racial Studies* 42.10, pp. 1613–1631. ISSN: 0141-9870. DOI: [10 . 1080 / 01419870 . 2018 . 1506145](https://doi.org/10.1080/01419870.2018.1506145). URL: <https://doi.org/10.1080/01419870.2018.1506145>.
- Sanders, Jimmy M. (2002). "Ethnic boundaries and identity in plural societies". In: *Annual review of sociology* 28.1, pp. 327–357. ISSN: 0360-0572.
- Schaub, Max, Johanna Gereke, and Delia Baldassarri (2020). "Strangers in Hostile Lands: Exposure to Refugees and Right-Wing Support in Germany's Eastern Regions". In: *Comparative Political Studies*, p. 0010414020957675. ISSN: 0010-4140.

- Schmitt, Michael T. and Nyla R. Branscombe (2002). "The meaning and consequences of perceived discrimination in disadvantaged and privileged social groups". In: *European Review of Social Psychology* 12.1, pp. 167–199. ISSN: 1046-3283.
- Shayo, Moses (2020). "Social identity and economic policy". In: *Annual Review of Economics* 12, pp. 355–389. ISSN: 1941-1383.
- Shibutani, Tamotsu and K. Kwan (1965). *Ethnic stratification: A comparative approach*. New York: Macmillan.
- Simon, Bernd (1992). "The perception of ingroup and outgroup homogeneity: Reintroducing the intergroup context". In: *European Review of Social Psychology* 3.1, pp. 1–30. ISSN: 1046-3283.
- Sirin, Cigdem V., José D. Villalobos, and Nicholas A. Valentino (2016). "Group Empathy Theory: The effect of group empathy on US intergroup attitudes and behavior in the context of immigration threats". In: *The Journal of Politics* 78.3, pp. 893–908. ISSN: 0022-3816.
- Skrobanek, Jan (2009). "Perceived discrimination, ethnic identity and the (re-) ethnicisation of youth with a Turkish ethnic background in Germany". In: *Journal of Ethnic and Migration Studies* 35.4, pp. 535–554. ISSN: 1369-183X.
- Socio-Economic Panel (2022). Data for years 1984-2020, SOEP-Core v37, EU Edition. Dataset. DIW Berlin. DOI: [10.5684/soep.core.v37eu](https://doi.org/10.5684/soep.core.v37eu).
- Steinmayr, Andreas (2020). "Contact versus exposure: Refugee presence and voting for the far-right". In: *Review of Economics and Statistics*, pp. 1–47. ISSN: 0034-6535.
- Tajfel, Henri (1982). "Social psychology of intergroup relations". In: *Annual review of psychology* 33.1, pp. 1–39. ISSN: 0066-4308.
- Tajfel, Henri and John C. Turner (1986). "The social identity theory of intergroup behavior". In: *Psychology of Intergroup Relations*. Ed. by William G. Austin and Stephen Worchel. Chicago: Nelson-Hall Publishers, pp. 7–24.
- Turner, John C., Penelope J. Oakes, S. Alexander Haslam, and Craig McGarty (1994). "Self and collective: Cognition and social context". In: *Personality and Social Psychology Bulletin* 20.5, pp. 454–463. ISSN: 0146-1672.
- Verkuyten, Maykel and Borja Martinovic (2012). "Immigrants' national identification: Meanings, determinants, and consequences". In: *Social Issues and Policy Review* 6.1, pp. 82–112. ISSN: 1751-2395.
- Verkuyten, Maykel and Ali Aslan Yildiz (2007). "National (dis) identification and ethnic and religious identity: A study among Turkish-Dutch Muslims". In: *Personality and Social Psychology Bulletin* 33.10, pp. 1448–1462. ISSN: 0146-1672.

- Waldorf, Brigitte S., Raymond J. G. M. Florax, and Julia Beckhusen (2008). "Spatial sorting of immigrants across urban and rural areas in the United States: Changing patterns of human capital accumulation since the 1990s". In: *American Journal of Agricultural Economics* 90.5, pp. 1312–1318. ISSN: 0002-9092.
- Williams, David R., Harold W. Neighbors, and James S. Jackson (2003). "Racial/ethnic discrimination and health: Findings from community studies". In: *American journal of public health* 93.2, pp. 200–208. ISSN: 0090-0036.
- Wimmer, Andreas (2008). "The making and unmaking of ethnic boundaries: A multilevel process theory". In: *American journal of sociology* 113.4, pp. 970–1022. ISSN: 0002-9602.
- (2009). "Herder's heritage and the boundary-making approach: Studying ethnicity in immigrant societies". In: *Sociological Theory* 27.3, pp. 244–270. ISSN: 0735-2751.
- Zimmermann, Laura, Klaus F. Zimmermann, and Amelie Constant (2007). "Ethnic self-identification of first-generation immigrants". In: *International Migration Review* 41.3, pp. 769–781. ISSN: 0197-9183.
- Zolberg, Aristide R. and Litt Woon Long (1999). "Why Islam is like Spanish: cultural incorporation in Europe and the United States". In: *Politics & Society* 27.1, pp. 5–38. ISSN: 0032-3292.