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Exposure to Past Immigration Waves and Attitudes toward Newcomers

Rania Gihleb, Osea Giuntella, Luca Stella

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Exposure to Past Immigration Waves and Attitudes toward Newcomers*

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Abstract

How does previous exposure to massive immigrant inflows affect concerns about current immigration and the integration of refugees? To answer this question, we investigate attitudes toward newcomers among natives and previous immigrants. In areas that in the 1990s received higher inflows of immigrants of German origin—so-called ethnic Germans—native Germans are more likely to believe that refugees are a resource for the economy and the culture, viewing them as an opportunity rather than a risk. Refugees living in these areas report better health and feel less exposed to xenophobia.

JEL Codes: A13, D64, J6, I31

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Introduction

There is an extensive literature analyzing the effects of immigration on attitudes towards immigrants and refugees. However, most studies focus on the role of current immigration inflows, neglecting the dynamics that may affect the medium and long-run effects of exposure to immigration on natives' anti-immigration sentiment. There is, in fact, only limited knowledge on the effect of previous exposure to massive waves of immigrants on voting behavior. Waves of immigration can have cumulative effects which are not fully captured by focusing on the impact of current immigration inflows. Short-run analysis may capture the concerns and prejudice typical of adjustment phases, while neglecting more positive effects that may occur over time, as integration is a process that may take longer time. Labor markets and policy may not adjust immediately. Furthermore, in the short-run information on immigrants may be scarce and noisy, inducing more negative attitudes among the incumbent native population. For these reasons, we believe it is important to better understand the role of cumulative waves of immigration. Previous experience with large immigrant waves may play an important role in shaping immigrants' experience and shed light on the mechanisms underlying anti-immigration sentiment.

The main goal of this study is to analyze whether experience of previous migration waves shapes attitudes toward refugees. Furthermore, we contribute to previous studies by analyzing the attitudes of previous cohorts of immigrants toward newcomers, and by exploring differences in the experience of refugees in areas with different exposure to past immigration. We focus on Germany, which has faced several waves of immigration since the end of World War II. Then, between 2014 and 2015, thousands of Syrian refugees escaping the Syrian Civil War arrived. Since 2014, concerns relating to migration and refugees have been ranked as the most pressing issue in the country (Gerhards et al., 2016). Thus, Germany represents a natural case study for our research purposes.

We investigate whether native Germans living in areas that received more immigrants of German origin—so-called ethnic Germans—fleeing the former Soviet Union in the 1990s are different in their attitudes toward the current inflows of refugees from the Middle East, particularly from Syria. We also analyze the attitudes of earlier cohorts of immigrants toward new refugees, and the experience of refugees themselves. To identify the effects of previous exposure to immi-

gration, we follow the identification strategy adopted by [Glitz \(2012\)](#), who studied the effect of immigration on labor market outcomes. This strategy was later employed by [Jahn and Steinhardt \(2016\)](#) and [Piopiunik and Ruhose \(2017\)](#) to examine the impact of immigration on innovation and crime, respectively. The identification exploits a peculiar placement policy in Germany that targeted immigrants of German origin—so-called ethnic Germans—in the 1990s. By doing so, we partially address the typical concerns of potential bias arising from endogenous location decisions, that is, immigrants may seek to locate to areas with favorable economic conditions and more positive attitudes toward immigrants.¹

We speak to the literature on the determinants of the attitudes of natives toward immigrants ([Verdier et al., 2012](#); [Bisin et al., 2008](#); [Hainmueller and Hopkins, 2015](#); [Scheve and Slaughter, 2001](#)). The role of demographic factors, media exposure, labor market competition, exposure to immigrants, education, or income is already well explored in the literature ([Halla et al., 2017](#); [Card et al., 2012](#); [Facchini and Mayda, 2009](#); [Mayda, 2006](#); [Dustmann and Preston, 2001, 2006](#); [Dustmann et al., 2018](#)). [Hainmueller and Hopkins \(2014\)](#) provide an excellent review of this literature. More recently, experimental studies show how misinformation about the proportion and characteristics of immigrants shapes people’s views on immigration ([Grigorieff et al., 2020](#); [Alesina et al., 2018](#)). Labor market concerns can also play a significant role in determining attitudes toward migration ([Haaland and Roth, 2020](#)).

Our paper is closely related to recent studies analyzing how family history and the salience of displacement may affect attitudes toward outgroups ([Dinas et al., 2019b](#)). In particular, we add to a handful of studies analyzing the effect of the recent refugee crisis ([Davis and Deole, 2017](#); [Deole and Huang, 2020](#); [Steinhardt, 2018](#); [Bharadwaj et al., 2020](#); [Dinas et al., 2019a](#)) and the effect of initial placement restrictions on assimilation outcomes ([Schikora, 2019](#)). While there exists literature on the effect of exposure to current inflows of economic immigrants and refugees on attitudes and votes ([Steinhardt, 2018](#); [Halla et al., 2017](#); [Dustmann et al., 2018](#)), we focus on the effect of previous immigration experience on native attitudes towards current refugees.

To the best of our knowledge, the only other study focusing on the dynamic effects of exposure to migration on the voting behavior of natives is a recent work by [Levi et al. \(2020\)](#). Using

¹As explained in Section 3, our analysis focuses on West Germany (without Bavaria). We acknowledge this is an important limitation of our study.

data from the UK, the authors provide evidence that the causal effect of immigrant presence on anti-immigrant votes is a short-run effect. We complement this analysis using an alternative empirical approach and focusing on anti-immigration sentiment rather than voting behavior. Furthermore, we explore attitudes of previous immigrants, and present evidence on the experience of refugees in areas previously exposed to large immigration inflows. We discuss our results and their implication with respect to the group threat hypothesis (Blumer, 1958). Contrary to what predicted by group threat theory, we find that a history of exposure to migration waves positively affects incumbents' attitudes towards newcomers. At the same time, consistent with the implications of group competitions, earlier cohorts of immigrants are more concerned about newcomers than native Germans. Furthermore, our main findings appear generally consistent with the predictions of the contact theory hypothesis.

Conceptual Framework and Background

Conceptual Framework

The relationship between exposure to past immigration waves and attitudes toward refugees has received so far little attention. In principle, rising inflows of immigrants within a region can influence native attitudes on immigration in two ways: as a threat to the culture and identity of the native population; or as a source of intercultural exchange and communication between natives and foreigners. While group threat theory suggests that exposure to immigration may increase opposition to immigrants and refugees who threaten the power and homogeneity of the incumbent population, contact theory suggests that previous exposure to immigration and diversity may foster support and empathy toward newcomers.

Group threat theory dates back to the work of Blumer (1958) and Blalock (1957). The concept was codified by Blalock (1957), who, studying group competition, explored the relationship between discrimination and the relative size of a minority group in an area. Group threat theory posits that, when a dominant group feels threatened by newcomers, the group will respond by defending its status and the ethnic hierarchy that established its dominant position (see also Bobo and Hutchings (1996)). As an out-group challenges boundaries or their current collective sense of hierarchy, in-group members develop hostile attitudes toward out-group members (Bobo, 1999).

Several studies have used the group threat theory to analyze the relationship between the relative size of the foreign population in an country and trends in the anti-immigration sentiment among the incumbent population (Citrin and Sides, 2008; Dixon and Ergin, 2010; Pettigrew et al., 2010; Rustenbach, 2010; Quillian, 1995). Consistent with the group threat theory, several recent studies find that immigration leads to an increase in the rise of far-right wing parties (Halla et al., 2017; Dustmann et al., 2018; Barone et al., 2016).

The group threat model predicts that a higher share of the minority population will lead to greater competition for public resources and increased anti-immigration sentiment among native-born people. Similarly, as individuals interact with out-group members not sharing their ethnicity, culture, or value systems, they feel that their culture and identity are threatened. Overall, the group threat theory suggests that earlier immigrants may respond to newcomers by defending their own status and inducing more negative attitudes towards newcomers. Thus, based on the group threat theory, our first empirical hypothesis is as follows:

H1: Among the incumbent population, higher exposure to previous immigration inflows will lead to less favorable attitudes towards newcomers.

Furthermore, we expect these effects to be more exacerbated among those individuals who are more likely to be exposed to the competition of newcomers in the labor market, in particular earlier cohorts of immigrants. Therefore, we formulate the following hypothesis:

H2: Among the incumbent population, earlier cohorts of immigrants will have less favorable attitudes towards newcomers.

Finally, we expect that if previous exposure to immigration increased prejudice and promoted negative attitudes towards immigrants, this may in turn affect the integration experience of the newcomers. For this reason, we specify the following third hypothesis:

H3: Among the refugees, those living in areas characterized by higher exposure to previous immigration inflows will be more concerned about xenophobia and feel less integrated in the hosting country.

The predictions of the group threat theory are often compared to the competing predictions based on the contact hypothesis which posits that greater proximity and interaction among groups can reduce prejudice. [Allport et al. \(1954\)](#) formulate the hypothesis that, under appropriate conditions –equal status, common goals, intergroup cooperation, institutional support– interpersonal contact may reduce prejudice between a majority and a minority. The contact perspective suggests that the conflict between native-born people and newcomers is a function of institutional and ecological barriers to the interaction between the groups. In the contact theory framework, anti-immigration sentiment is the result of abstraction from actual social interaction ([Vallas et al., 2009](#)). On the contrary, exposure and contact can reduce stereotypes, existing prejudices, and ethnic antagonism ([Bobo and Hutchings, 1996](#); [Pettigrew et al., 2011](#)). Recent studies examining the impact of immigration on voting behavior have found evidence consistent with the contact hypothesis ([Steinmayr, 2020](#); [Vertier and Viskanac, 2018](#); [Lonsky, 2021](#); [Levi et al., 2020](#)). While our data do not allow us to directly test the contact theory hypothesis, we will discuss the results in light of its implications.

Background

Historical Background: Ethnic Germans

A large number of ethnic Germans emigrated to Eastern Europe during the 18th century. Ethnic minorities became German citizens during the German Reich through the Bismarck Germanization laws passed at the end of the 19th century. However, many of these Germans became foreigners after the territorial losses that occurred in World War I ([Zimmermann, 1999](#)). After the end of World War II, approximately 15 million German citizens became refugees or expellees. Of these 15 million, approximately 8 million settled in West Germany and 3.5 million in East Germany, but many remained outside Germany. With the Cold War and the construction of the Berlin wall, the inflow of ethnic German immigrants, also known as *Aussiedler*, was severely limited. Yet, since 1988 travel restrictions in many countries in Central and Eastern Europe were lifted, new inflows of ethnic German migrants began, mainly from Soviet Union, Poland, and Romania. In 1990, approximately 400,000 ethnic Germans entered Germany ([Worbs et al., 2013](#)). The large inflows forced the government to introduce a quota in the following years, restrict-

ing the access to approximately 225,000 ethnic Germans per year. Figure A.1 in the Appendix provides a timeline of the historical background.

Ethnic German immigrants had to apply for a visa at the Germany embassy and prove their German origin. If the visa was granted, an individual would be registered at a central admission center. The center would allocate immigrants without a job or without a source of income (the majority) to the federal states according to quotas. Similarly, within the state, the ethnic Germans would be allocated to counties based on the relative population share of each county. The primary factor determining the allocation of the ethnic German immigrants was the proximity to family members. In 1990, to respond to the large inflows observed in 1988, the German government introduced the Assigned Place of Residence Act, which created a legal system of refugees reallocation across German regions. The goal of the law was to achieve an even distribution of ethnic Germans throughout the country. However, the act was largely ineffective because immigrants' benefits would not be affected by migration across counties or states within Germany. Thus, in 1996 the government decided to radically modify the Assigned Place of Residence by establishing that ethnic German immigrants would lose all their benefits if they decided to live somewhere else other than their initial allocation. With the exception of Bavaria and Rhineland-Palatinate, the new law was adopted in most German states as of March 1996. The sanctions introduced in the reformed Act were effective, and granted a high compliance with the initial allocation decision. The introduction of the new system provides a quasi-experiment generating variation in the allocation of immigrants across German counties that is orthogonal to immigrant skills (Glitz, 2012).

The 2015 Refugee Crisis

In 2015, Europe experienced the largest refugee crisis since World War II, with over 1.2 million asylum applications, and Germany receiving the largest number of applications. The refugee crisis was triggered by the civil war in Syria, and the instability in many countries in the Middle East and in the Maghreb during the "Arab Spring." The peak of the crisis occurred in the Summer of 2015. In a famous speech at the Federal Press Conference, the Chancellor Angela Merkel announced that Germany would suspend the Dublin procedure, without sending refugees back

to the first country in which the asylum seeker lodged its application. After Merkel's speech on September 4, 2015, Germany received an even higher proportion of applications than the rest of the EU. The applications continued to increase until March 2016, when the EU signed an agreement with Turkey that led to a drastic reduction in the number of migrants entering the EU through Turkey. The statement implied that any irregular migrant entering the EU through Turkey could be sent back to Turkey. In two years, the number of Syrians in Germany increased by more than five folds, with an estimated population of approximately 600,000 Syrians currently living in Germany.

Data and Empirical Strategy

Data

We draw data from the SOEP, a nationally representative longitudinal dataset that has interviewed annually approximately 15,000 households and about 30,000 individuals in Germany since 1984. The target population covered in the SOEP is the population of private households residing within the current boundaries of Germany. The default method of data collection in the SOEP survey is based on personal interviews: interviewers try to obtain face-to-face interviews with each household member above the age of 16. The face-to-face interview, combined with several refreshment samples of the residential population of Germany and incentives directly given to respondents to keep them in the survey, has contributed to maintain the longitudinal response rates at high levels, thereby mitigating the issue of panel attrition. While the initial response rate in 1984 for the main sample was 60.9%, the response rate varied between 70% and 90% over the years and across the different waves and supplements of the survey (Sieggers et al., 2021; Bohlender et al., 2018). The SOEP consists of several subsamples and is constructed to be representative of the entire population of Germany.² The survey contains detailed information on a broad set of variables at the individual and the household level: socio-economic characteristics, labor market outcomes, and health-related measures. For further details about the survey, see Wagner et al. (2007) and Goebel et al. (2019).

²Because of changes in these boundaries (in 1990) and changes in the population due to migration, various adaptations have been made to the initial sampling structure to maintain the sample's representativity. In addition, certain groups have been oversampled to increase the statistical power.

The SOEP data have a number of unique features that make them particularly attractive for the present analysis. First, by ensuring the representativeness of the resident migrant population in Germany since the initiation of the survey, the SOEP dataset provides routine information on immigrants over a long period of time. Second, the SOEP data contain information about the attitudes and the concerns that respondents have regarding a variety of issues, including migration. This information is crucial for our study because it allows us to consider native attitudes toward immigration as outcome variables. Third, our data provide information on respondents' opinion about the current wave of refugee migration. Of particular importance for our study is the fact that, in addition to its panel survey, the 2016 SOEP wave conducted a "Barometer of Public Opinion on Refugees in Germany" (for further information, see [Jacobsen et al. \(2017\)](#)). Finally, the SOEP data contain the IAB-BAMF-SOEP Survey of Refugees, a yearly panel study of refugees conducted in cooperation with the Institute for Employment Research (IAB) and the Research Centre on Migration, Integration, and Asylum of the Federal Office for Migration and Refugees (BAMF-FZ). For an overview of the IAB-BAMF-SOEP Survey of Refugees, see [Kroh et al. \(2017\)](#). This survey was initiated in the 2016 SOEP wave, and collected comprehensive data on refugees who arrived in Germany since 2013, including information on refugees' socio-economic attributes, migration experience, labor market experience, and living conditions in Germany, as well as detailed information on their current life satisfaction, self-reported health status, their worries about xenophobia and about not being able to remain in Germany, and refugees' connection with German culture and identity. The overall response rate to this survey was 49% ([Kroh et al., 2017](#)). The availability of this data source is ideally suited to our study, since it allows us to provide valuable insights on the refugees' well-being and integration process in the first years of arrival in Germany.

Measurements

Dependent Variables

The following questions are asked to the respondents: "What is your attitude toward immigration to Germany?". The answer categories include "very concerned," "somewhat concerned," and "not concerned at all." We construct an indicator variable for whether individuals ever

reported being very concerned about immigration to Germany.

The Barometer of Public Opinion on Refugees asks each respondent a set of five questions aimed at rating the effect of the current wave of refugee migration on a scale of 1 to 11. These five questions include the respondent's opinion on: 1) whether refugees are bad or good for the German economy; 2) whether refugees undermine or enrich cultural life in Germany; 3) whether refugees make Germany a worse or better place to live; 4) whether a high influx of refugees implies more risks or more opportunities *in the short term*; and 5) whether a high influx of refugees implies more risks or more opportunities *in the long term*. We exploit this information to construct for each of the above-mentioned questions an indicator variable taking value one (and zero otherwise) if the respondent reports a score higher than the median.³ In addition to these five questions, respondents are also asked if they engaged or intend to engage in supporting refugees with monetary or material donations.

In our analysis of refugees' well-being, our main outcome variables are the following: their worries about xenophobia; self-reported health status; life satisfaction; concerns about their permanence in Germany; and refugees' attachment to German culture and identity.

Table 1 displays the descriptive statistics on the main variables used in the regressions separating the sample across natives (see Panel A) and refugees (see Panel B). In Panel A, approximately 26% of natives are very concerned about immigration to Germany. As for the respondents' opinion about the current wave of refugee migration, approximately 38% of natives believe that refugees are good for the German economy; 41% think that refugees enrich the cultural life; 25% that refugees make Germany a better place to live; 36% that refugees create more opportunities in the short term; 43% that refugees create more opportunities in the long term; 35% gave financial support to refugees, whereas 40% intend to do so in the future. Considering the sample of refugees (see Panel B), their current life satisfaction is 7.35; about 77% report to be in good health and 6% are concerned about xenophobia. Close to 41% are worried that they may not be able to remain in Germany; and about 33% feel connected with the German culture and identity.

³In the Appendix, we report the results obtained using the continuous metric or an alternative dichotomic variable based on the midpoint of the Likert scale (see Tables A.2 and A.3).

Table 1: Descriptive Statistics

	Mean	Std. dev.	Min	Max
Panel A: Sample of Native Germans (survey years: 2001-2017)				
Concerned about immigration	0.26	0.44	0	1
Refugees are good for the economy	0.38	0.49	0	1
Refugees enrich cultural life	0.41	0.49	0	1
Refugees make Germany a better place	0.25	0.44	0	1
Refugees create more opportunities in the short term	0.36	0.48	0	1
Refugees create more opportunities in the long term	0.43	0.49	0	1
Financial support for refugees (current)	0.35	0.48	0	1
Financial support for refugees (future)	0.40	0.49	0	1
Age	39.45	11.64	18	59
Female	0.53	0.50	0	1
Married	0.58	0.49	0	1
College degree	0.29	0.45	0	1
Panel B: Sample of Refugees (survey years: 2016-2017)				
Current life satisfaction	7.35	2.19	0	10
Good health	0.77	0.42	0	1
Concerned about xenophobia	0.06	0.23	0	1
Worried not to remain in Germany	0.41	0.49	0	1
German identity	0.33	0.47	0	1
Age	30.43	7.49	18	45
Female	0.40	0.49	0	1
Married	0.62	0.48	0	1
College degree	0.19	0.39	0	1
Years since arrival	1.83	0.83	0	4

Notes - Data are drawn from the SOEP. Panel A includes German-born individuals aged 18-59 at the time of the interview (survey years: 2001-2017), whereas Panel B contains refugees aged 18-45 who arrived in Germany since 2013. All the samples contain individuals for whom information on all observables and the respective outcome variable are not missing.

Control Variables

The summary statistics reported in Panel A also indicate that on average, native individuals in our sample are 39 years old, 53% are females, about 58% are married, and approximately 29% have at least a college level education. As shown in Panel B, refugees are younger and are less educated than the native population: on average, they are 30 years old and about 19% have at least a college degree. Moreover, approximately 62% are married, and they are in Germany since about 1.8 years.

Independent Variable

To construct a measure of exposure to previous inflows of ethnic German immigrants, we use data collected by [Glitz \(2012\)](#) from the responsible federal admission centers in each state.⁴ The data cover the 1996–2001 period when the Assigned Place of Residence Act was in effect. The data were obtained for each county in West Germany with the exception of Bavaria, as Bavarian records were not kept at the required regional level. As noted by [Glitz \(2012\)](#), data on the former German Democratic Republic are fragmentary. Because of these data limitation and the dramatic transition occurring in East Germany after the unification, we focus the analysis on the effects of ethnic Germans on West Germany only. Ethnic German immigrant inflow rates are calculated using county-level population figures provided by the German's Federal Statistical Office. Then, we merge these data with the SOEP dataset at the level of the ROR.⁵

Working Samples

Given the data limitations and the different approaches used in the paper, our analysis considers different working samples. First, when analyzing the effects of previous exposure to ethnic German immigrant inflows on concerns about immigration, we restrict attention to the 2001–2017 period. Following [Glitz \(2012\)](#), we exclude East Germany from the sample. To perform a placebo test, we examine the relationship between the inflow of ethnic Germans between 1996 and 2001 and native preferences and their socio-demographic characteristics between 1985 and 1990.

⁴We used data on the annual number of ethnic Germans that were made publicly available by [Glitz \(2012\)](#). Data were accessed on <https://www.journals.uchicago.edu/doi/suppl/10.1086/662143> as of May 1, 2020.

⁵There are 96 regional policy regions throughout Germany.

In our analyses of refugees, we rely on the first two waves of the IAB-BAMF-SOEP Survey of Refugees (i.e., conducted in 2016 and 2017, respectively), and restrict the sample to refugees between the ages of 18 and 45 years.⁶ Notably, the vast majority of refugees in Germany are from conflict-affected countries: approximately 50% of the refugees come from Syria; individuals from Iraq and Afghanistan correspond, respectively, to 13% and 12% of the refugee sample

Empirical Strategy

To examine the effect of previous exposure to ethnic German inflow, we estimate the following linear regression model:

$$Y_{irt} = \alpha + \beta \text{ Ethnic German inflow}_r + \gamma X_{irt} + \lambda U_{rt} + \mu_t + \epsilon_{irt} \quad (1)$$

where the index irt denotes an individual i aged 18–59 years, residing in a ROR r in year t . Y_{irt} represents a set of individual outcomes for the native population (concerns about immigration to Germany; opinion about the current wave of refugee migration; and labor market outcomes), and for the group of refugees (current life satisfaction; self-reported health; worried about xenophobia; worried about not being able to remain in Germany; and German identity).

Our explanatory variable of interest is $\text{Ethnic German inflow}_r$, which represents the exposure to the inflows of ethnic German immigrants allocated in a ROR between 1996 and 2001, as measured in logs. Accordingly, the coefficient of interest is β , which indicates the effect of the exposure to ethnic German inflow. X_{irt} is a vector of individual covariates, including gender, age and age squared, dummies for individual's education, and marital status. U_{rt} is the set of ROR-level labor market and institutional characteristics, such as unemployment rate, the proportion of individuals with a college-level education, and controls for the size of the population. All our estimates further include survey year fixed effects in the μ_t term in order to account for possible time trends in our outcome. Finally, ϵ_{irt} represents an idiosyncratic error term. Standard errors are clustered by ROR.

To address the concern regarding endogeneity of location decisions, we follow the identification strategy adopted by [Glitz \(2012\)](#), and exploit the exogenous allocation of ethnic German

⁶The sample of refugees is restricted to 18-45 years old, as most refugees in this sample are in this age group.

immigrants to Germany's counties between 1996 and 2001. Our identification hinges on the assumption that the local inflows of ethnic Germans in this period were uncorrelated with other determinants of anti-immigration sentiment and attitudes towards refugees, and that in the absence of these inflows, attitudes towards newcomers would have followed similar trends across regions. This is our parallel trend assumption. A natural concern is that areas receiving more ethnic German immigrants between 1996 and 2001 were systematically different compared with areas receiving fewer ethnic German immigrants even before the collapse of the Soviet Union. This is crucial, since our identification strategy hinges on cross-sectional variation.

Reassuringly, Table 2 documents that, before 1991 (i.e., before the massive arrival of ethnic German immigrants), there was no evidence of significant differences in the likelihood of reporting far right-wing preferences and economic characteristics (i.e., household income, employment, and education) across areas that would have received larger inflows of ethnic German immigrants and areas that were less exposed to the penetration of ethnic Germans in the 1990s. This suggests that areas that had received larger inflows of ethnic German immigrants were similar with respect to these characteristics to areas receiving less inflows.

Table 2: Balancing Test - Effects of Ethnic German Inflow on Characteristics in 1985-1990

Dep. var.:	(1) Preference for far right-wing parties	(2) Household income	(3) Employed	(4) College
Ethnic German inflow	-0.002 (0.003)	-390.271 (919.239)	-0.012 (0.012)	0.012 (0.008)
Mean of dep. var.	0.0153	31604	0.651	0.173
Std. dev. of dep. var.	0.123	19923	0.477	0.379
Observations	13,107	22,516	23,351	23,246

Notes - Data are drawn from the SOEP (survey years: 1985-1990). The sample includes German-born individuals aged 18-59 at the time of the interview. Standard errors in parentheses are clustered at the ROR level. All models include controls for gender, age and its quadratic term, education, and marital status. All regressions further include survey year fixed effects. The key explanatory variable is measured in logarithms.

* Significant at 10%; ** significant at 5%; *** significant at 1%.

Results

In this section, we present our main empirical results. First, we analyze the effects of inflows of ethnic German immigrants on the concern of natives about immigration to Germany and their attitudes toward refugees (**H1**). Second, we study the potential differential effects on attitudes toward refugees among previous cohorts of immigrants and ethnic German immigrants (**H2**). Third, we examine the relationship between previous exposure to immigration and the integration of refugees (**H3**).

Exposure to Ethnic German Inflows in the 90s and Native Germans' Attitudes (H1)

Table 3 presents the reduced form results of the estimation of Model (1) using pooled data from the 2001–2017 period for the native population aged 18–59 years. We focus on West Germany for which we use the data collected by Glitz (2012) on local ethnic German inflows. We find that natives that were exposed to massive inflows of ethnic German immigrants during the 1990s were not more concerned about immigration to Germany (see column 1).

Drawing data from the “Barometer of Public Opinion on Refugees in Germany,” conducted in 2016 as part of the SOEP survey, we examined whether native Germans residing in areas that were previously exposed to larger inflows of ethnic German immigrants have different opinions on the current wave of refugee migration (see columns 2 to 8 of Table 3). In areas previously more exposed to ethnic German immigrant inflows, native Germans are significantly more likely to report that refugees are good for the economic environment (see column 2) and enrich the cultural life in Germany (see column 3). Specifically, doubling the exposure to ethnic German immigrants increases the likelihood of considering refugees as good for the economy in Germany by 3 percentage points (+8% with respect to the mean outcome), it increases the probability of considering them good for cultural life by 3.4 percentage points (+7% with respect to the mean outcome), and it raises the likelihood of thinking that refugees make Germany a better place to live by 2.3 percentage points (+9% with respect to the mean). These results are qualitatively similar when using the continuous Likert scale or a dummy variable for being above the midpoint of the scale (see Tables A.2 and A.3 in the Appendix). Moreover, natives who were exposed to larger inflows of ethnic German immigrants in the past are significantly more likely to think that

refugees create more opportunities both in the short run (+5%) and in the longer run (+4.5%), and that they will consider supporting refugees with monetary or material donations in the future (+9%).

Overall, these results point toward a positive view of current refugees among native Germans that were previously more exposed to ethnic German immigrants, and appear consistent with the predictions of the contact theory suggesting null or small negative effects in the short run and overall positive long run effects of immigration on labor market outcomes (Peri, 2014).⁷

Table 3: Response of Native Germans' Attitudes towards Refugees to Inflows of Ethnic German Immigrants – Reduced Form Estimates

Dep. var.:	(1) Concerned about immigration	(2) Refugees are good for the economy	(3) Refugees enrich cultural life	(4) Refugees make Germany a better place	(5) More opportunities in the short term	(6) More opportunities in the long term	(7) Financial support for refugees Current	(8) Financial support for refugees Future
Ethnic German inflow	0.003 (0.009)	0.030** (0.015)	0.034*** (0.009)	0.023** (0.011)	0.018** (0.008)	0.019* (0.010)	0.020 (0.012)	0.036** (0.014)
Mean of dep. var.	0.264	0.385	0.414	0.252	0.353	0.427	0.356	0.407
Std. dev. of dep. var.	0.441	0.487	0.493	0.434	0.478	0.495	0.479	0.491
Observations	129,946	7,645	7,649	7,644	7,656	7,644	7,655	7,558

Notes - Data are drawn from the SOEP (survey year: 2016). The sample includes German-born individuals aged 18-59 at the time of the interview. Standard errors in parentheses are clustered at the ROR level. All models include controls for gender, age and its quadratic term, education, and marital status. All regressions further include survey year fixed effects, as well as ROR-level controls for the size of the population, the share of unemployed, and the proportion of individuals with a college-level education. The key explanatory variable is measured in logarithms.

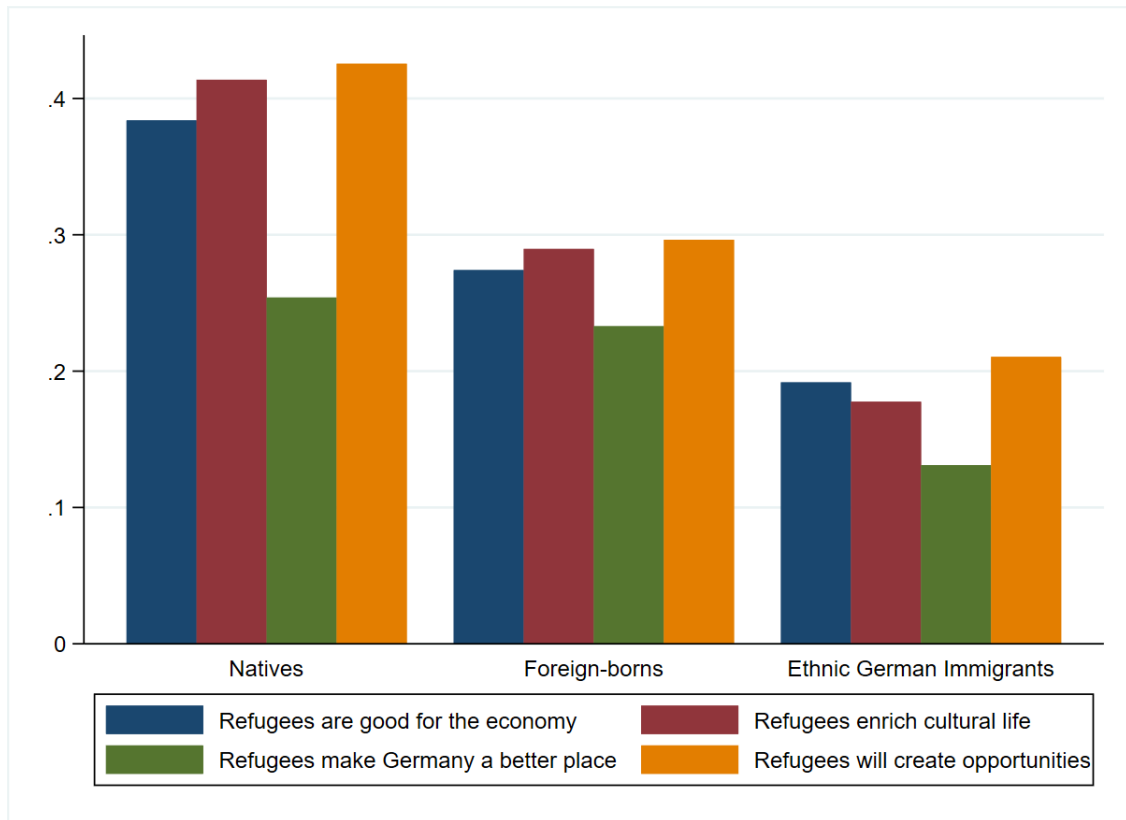
* Significant at 10%; ** significant at 5%; *** significant at 1%.

Attitudes toward Refugees among Previous Cohorts of Immigrants and Ethnic Germans (H2)

The attitudes of individuals toward newcomers may be largely shaped by their exposure to competition with them in the labor market (group threat theory) as well as the cultural proximity of different individuals to the newcomers (contact theory). Figure 1 documents that native Germans are overall more positive toward newcomers compared with foreign-born individuals and ethnic German immigrants. For example, while approximately 40% of native Germans highlight the beneficial effect of current refugees on the economy, cultural life, and creation of opportunities in the long term, this proportion drops to about 30% among foreign-born individuals and to about 20% among ethnic German immigrants.

⁷Consistent with previous studies (Jahn and Steinhardt, 2016), Table A.1 in the Appendix documents the lack of significant negative effects on labor market outcomes in our sample.

Figure 1: Attitudes toward Refugees across Natives, Immigrants, and Ethnic Germans



In Table 4, we analyze the differential effects on the attitudes toward refugees among foreign-born individuals. When examining the immigrant group as a whole (see Panel A), we find that foreign-born individuals tend to report a negative view about refugees' contribution to the German economy and society. For instance, foreign-born individuals are significantly less likely to think that refugees will create more opportunities in the long term, and are less likely to provide financial or material support to them. However, this overall negative view of refugees may mask important heterogeneity along immigrant groups. Indeed, Panel B presents a different picture, with Turkish immigrants being more favorable than natives toward newcomers.

This descriptive evidence suggests that, while earlier immigrants may be the ones who are more directly exposed to the competition with refugees on the labor market, cultural proximity, shared identity, or religion may be play a salient role in shaping attitudes toward refugees.⁸

On the contrary, ethnic German immigrants are more likely to have an overall pessimistic

⁸In fact, we find a similar positive attitude toward recent refugees when focusing on Muslim respondents. However, it is worth noting that information on religion is available only for a restricted subsample of respondents.

Table 4: Attitudes towards Refugees among Immigrant Groups

Dep. var.:	(1) Refugees are good for the economy	(2) Refugees enrich cultural life	(3) Refugees make Germany a better place	(4) More opportunities in the short term	(5) More opportunities in the long term	(6) Financial support for refugees Current	(7) Financial support for refugees Future
Panel A: Sample of German Natives and Immigrants							
Immigrant	-0.111*** (0.017)	-0.130*** (0.013)	-0.033** (0.014)	-0.005 (0.014)	-0.128*** (0.015)	-0.092*** (0.014)	-0.102*** (0.018)
Mean of dep. var.	0.348	0.372	0.240	0.349	0.385	0.333	0.378
Std. dev. of dep. var.	0.476	0.483	0.427	0.477	0.487	0.471	0.485
Observations	10,536	10,523	10,515	10,516	10,498	10,600	10,473
Panel B: Sample of German Natives and Immigrants from Turkey							
Turkish	-0.013 (0.030)	0.001 (0.033)	0.093** (0.038)	0.092*** (0.030)	-0.024 (0.035)	0.106*** (0.037)	0.085** (0.036)
Mean of dep. var.	0.381	0.409	0.253	0.355	0.421	0.359	0.407
Std. dev. of dep. var.	0.486	0.492	0.435	0.478	0.494	0.480	0.491
Observations	7,942	7,944	7,937	7,946	7,932	7,960	7,861
Panel C: Sample of German Natives and Immigrants from Mediterranean Countries (Italy, Greece and Spain)							
Mediterranean	-0.059 (0.035)	-0.091*** (0.031)	-0.011 (0.033)	0.046 (0.043)	-0.054 (0.038)	-0.032 (0.039)	-0.012 (0.042)
Mean of dep. var.	0.383	0.410	0.251	0.354	0.424	0.355	0.406
Std. dev. of dep. var.	0.486	0.492	0.434	0.478	0.494	0.479	0.491
Observations	7,870	7,872	7,867	7,880	7,869	7,885	7,785
Panel D: Sample of German Natives and Immigrants from Ex-Yugoslavia							
Yugoslavian	-0.119** (0.048)	-0.078* (0.040)	-0.077* (0.040)	-0.011 (0.048)	-0.102* (0.052)	-0.090 (0.066)	-0.067 (0.072)
Mean of dep. var.	0.383	0.412	0.251	0.352	0.424	0.355	0.405
Std. dev. of dep. var.	0.486	0.492	0.433	0.478	0.494	0.479	0.491
Observations	7,750	7,754	7,751	7,760	7,748	7,766	7,669
Panel E: Sample of German Natives and Immigrants from Eastern Europe							
Eastern European	-0.188*** (0.020)	-0.222*** (0.015)	-0.105*** (0.015)	-0.081*** (0.017)	-0.207*** (0.018)	-0.186*** (0.014)	-0.199*** (0.018)
Mean of dep. var.	0.354	0.378	0.235	0.340	0.393	0.331	0.378
Std. dev. of dep. var.	0.478	0.485	0.424	0.474	0.488	0.471	0.485
Observations	8,996	8,994	8,985	8,990	8,975	9,017	8,900
Panel F: Sample of German Natives and Ethnic German Immigrants							
Ethnic German	-0.163*** (0.022)	-0.203*** (0.017)	-0.099*** (0.017)	-0.104*** (0.022)	-0.182*** (0.021)	-0.167*** (0.020)	-0.173*** (0.027)
Mean of dep. var.	0.368	0.394	0.242	0.343	0.408	0.343	0.392
Std. dev. of dep. var.	0.482	0.489	0.428	0.475	0.491	0.475	0.488
Observations	8,375	8,376	8,372	8,383	8,369	8,387	8,276

Notes - Data are drawn from the SOEP (survey year: 2016). The sample includes natives and immigrants aged 18-59. Standard errors in parentheses are clustered at the ROR level. All models include controls for gender, age and its quadratic term, education, and marital status. All regressions further include survey year fixed effects, as well as ROR-level controls for the size of the population, the share of unemployed, and the proportion of individuals with a college-level education.

view about refugees, considering them a risk rather than an opportunity for Germany (see Panel F of Table 4). Compared with natives, ethnic German immigrants are 44% less likely to consider refugees good for the German economy, are 51% less likely to consider them good for cultural life, and 40% less likely to believe that refugees make Germany a better place to live (see columns 1 to 3, respectively). Similarly, ethnic German immigrants are 30% less likely to believe that refugees create more opportunities in the short term, and 45% less likely to believe that refugees create more opportunities in the long term (see, respectively, columns 4 and 5). Finally, as shown in columns 6 and 7, ethnic Germans are less likely to provide current (-48%) or future (-44%) support to refugees compared with natives.

Finally, in Table A.4 in the Appendix, we compare the results for the first-generation immigrants with those obtained for the second-generation immigrants. Consistent with the higher labor market exposure we would expect among first-generation immigrants, we find that second-generation immigrants are more likely to have a positive view of recent refugees (see Panel B).

Previous Exposure to Immigration and Refugees' Integration (H3)

Previous experience with large immigrant waves and with diversity may reduce information gaps and misperceptions, and thus promote the integration process of refugees. This could, in turn, have positive effects on their integration experience.

In fact, we find that those living in areas that previously received higher inflows of ethnic German immigrants were significantly less concerned about xenophobia and reported better health. The results of this analysis are displayed in Table 5.

In particular, we find that doubling the inflow of ethnic German immigrants in an area was associated with a 24% reduction in the probability of being concerned about xenophobia compared with the mean outcome (see column 1), and a 5% increase in the likelihood of reporting good health (see column 2). Effects on life satisfaction are less precisely estimated (+5%, see column 3), and there is no evidence of a significant effect on worries about not being able to remain in Germany (see column 4), and connection with German culture and identity (see column 5).

Table 5: Previous Immigration and Refugees' Integration – Reduced Form Estimates

Dep. var.:	(1) Concerned about xenophobia	(2) Good health	(3) Current life satisfaction	(4) Worried not to remain in Germany	(5) German identity
Ethnic German Inflow	-0.014** (0.006)	0.039*** (0.011)	0.022 (0.015)	-0.040 (0.036)	-0.001 (0.038)
Mean of dep. var.	0.0563	0.771	0.530	0.406	0.335
Std. dev. of dep. var.	0.231	0.420	0.499	0.491	0.472
Observations	5,575	3,938	5,653	5,572	1,388

Notes - Data are drawn from the SOEP (survey years: 2016-2017). The sample includes refugees aged 18-45 who arrived in Germany since 2013. Standard errors in parentheses are clustered at the ROR level. All models include controls for gender, age and its quadratic term, the number of years since migration, and marital status. All regressions further include survey year fixed effects, as well as ROR-level controls for the size of the population, the share of unemployed, and the proportion of individuals with a college-level education. The key explanatory variable is measured in logarithms.

* Significant at 10%; ** significant at 5%; *** significant at 1%.

Discussion

In areas that received higher inflows of ethnic German immigrants in the 1990s, native Germans thought that refugees represent a resource for the economy and the cultural life, viewing them as an opportunity rather than a risk. We interpret these results as evidence consistent with the implications of the contact theory, which suggests that more experience with different ethnic groups may favor interaction and promote favorable attitudes toward minorities. Consistent with this hypothesis, we find that refugees living in these areas reported better health and were less concerned about xenophobia.

However, ethnic German immigrants and earlier cohorts of immigrants were more concerned about the new wave of refugees compared with native Germans and hold a more negative perception of the influence of refugees on the Germany economy, viewing them as a risk rather than as an opportunity.

Our results suggest that in contrast to the predictions of group threat theory, experience with past immigration inflows may promote positive attitudes of the incumbent population towards newcomers, thereby rejecting our first hypothesis **H1**. At the same time, consistent with group threat theory, earlier cohorts of immigrants are more likely than native Germans to be concerned about newcomers and their integration into the German system. These findings are in line with our second hypothesis **H2**. However, the finding that Turkish immigrants have more positive

attitudes towards newcomers is consistent with the relevance of cultural proximity in shaping attitudes towards newcomers (Brunner and Kuhn, 2018).

Although our data lack information on networks and interactions between groups to directly test the contact theory hypothesis, our results appear consistent with its implications. Contact theory predicts that the size of the out-group will increase the likelihood of contact and interaction between native-born people and newcomers. A history of immigration may reduce barriers to interaction and induce more favorable attitudes towards newcomers among the incumbents. Unfortunately, we do not have data that allow us to test this theory directly. However, our findings appear overall consistent with the hypotheses that higher exposure to immigration inflows in the past may lead to more interactions with minority groups, reducing prejudice and positively affecting attitudes towards newcomers.

This could also explain the better experience of refugees in these communities, which contrasts with our third hypothesis **H3**, built on the predictions of group threat theory. A possible explanation for our result is that consistent with the contact theory hypothesis previous experience with large immigrant waves may reduce information gaps and misperceptions, and thus promote the integration process of refugees, this could, in turn, have positive effects on their integration experience.

Limitations

Our study has some limitations. First, our identification strategy hinges on cross-sectional variation across German regional policy regions. Yet, the evidence of non-significant correlation with socio-economic characteristics and past voting preferences is reassuring. Second, we exploit the exposure to a specific group of immigrants, namely, the ethnic Germans. While this helps us exploit the quasi-random allocation of the expellees across German regions, further research should test how exposure to more ethnically diverse immigrants may affect native attitudes toward newcomers. Third, because of data limitations, our analysis focuses on West Germany (without Bavaria). This is of course an important limitation of our study. Fourth, as mentioned above, our data and analysis does not allow us to directly test the contact theory hypothesis. Finally, more research is needed to better understand the role of labor market competition, shared

identity, and cultural proximity in shaping the attitudes of earlier immigrants toward more recent immigrant cohorts.

Conclusion

In this paper, we investigate how previous exposure to massive immigrant inflows affects concerns about current immigration and the integration of refugees in the hosting economy and culture. Overall, our results suggest that the threat of newcomers may be larger in the short run (Levi et al., 2020) and among groups who are more exposed, while experience with previous immigration waves may reduce anti-immigration sentiment and increase support toward refugees among the natives.

Our findings contribute to the literature analyzing the impact of immigration on anti-immigration sentiment. A few recent studies on the impact of immigration on voting behavior find evidence consistent with the contact hypothesis (Steinmayr, 2020; Vertier and Viskanic, 2018; Lonsky, 2021), that is, a reduction in the popularity of far right-wing parties in areas that received more immigrants or refugees. Among these studies, the work of Levi et al. (2020) is closest to our study. They employ data from the UK to illustrate how the effect of immigrant presence on anti-immigrant votes erodes over time, a finding consistent with the contact theory hypothesis. We provide further evidence from Germany using information on native attitudes. Our approach exploits the quasi-experimental variation in the exposure to previous inflows of German expellees to analyze its effects on attitudes toward refugees (Steele and Abdelaaty, 2019). Similarly, Dustmann et al. (2018), by exploiting the quasi-random refugee allocation in Denmark, show a more pronounced positive correlation between refugee allocation and far-right voting in rural areas with high pre-policy immigrant shares.

In this study, we focus on anti-immigrant sentiment and explore also the different experiences of newcomers in areas with high or low exposure to previous immigration. By focusing on the role of previous exposure to immigrant waves, we highlight the dynamic nature of this relationship. Furthermore, we explore its implications on refugees' well-being and integration. Our results reject some of the predictions of the group threat theory and are instead consistent with the implications of the contact theory hypothesis. Future research may explore better and

more granular data on groups' interaction to directly test the role of contact theory.

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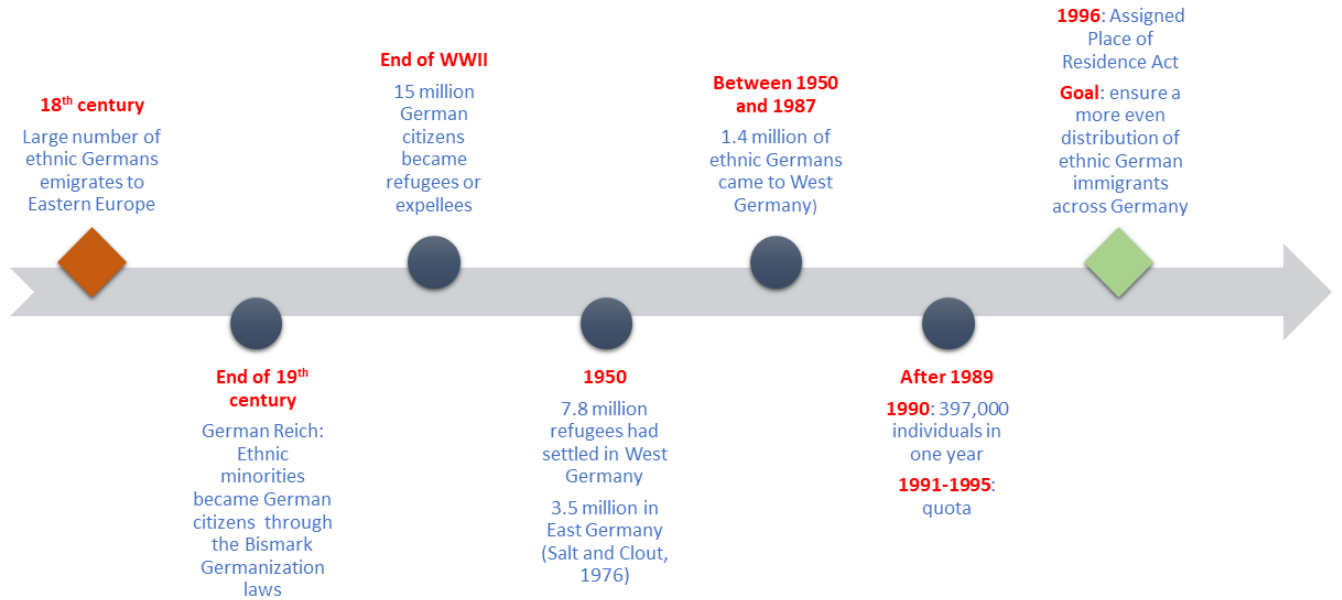
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Appendix A: Supplemental Figures and Tables

Figure A.1: Ethnic Germans: A Timeline



Notes - This figure summarizes some of the key historical events in the history of ethnic Germans (for more details, see Glitz (2012) and Zimmermann (1999)).

Table A.1: Response of Native Germans' Labor Market Outcomes to Inflows of Ethnic German Immigrants – Reduced Form Estimates

Dep. var.:	(1) Wages	(2) Household income	(3) Unemployment
Ethnic German inflow	-0.013 (0.012)	-0.008 (0.016)	-0.001 (0.001)
Mean of dep. var.	29,817	60,225	0.051
Std. dev. of dep. var.	24325	49183	0.220
Observations	102,710	136,730	141,589

Notes - Data are drawn from the SOEP (survey years: 2001-2017). The sample includes German-born individuals aged 18-59. Standard errors in parentheses are clustered at the ROR level. All models include controls for gender, age and its quadratic term, education, and marital status. All regressions further include survey year fixed effects, as well as ROR-level controls for the size of the population, the share of unemployed, and the proportion of individuals with a college-level education. The key explanatory variable is measured in logarithms.

* Significant at 10%; ** significant at 5%; *** significant at 1%.

Table A.2: Response of Native Germans' Attitudes towards Refugees to Inflows of Ethnic German Immigrants – Reduced Form Estimates – Alternative Definitions of Attitudes

Dep. var.:	(1) Refugees are good for the economy	(2) Refugees enrich cultural life	(3) Refugees make Germany a better place	(4) More opportunities in the short term	(5) More opportunities in the long term
Panel A: Attitudes measured using the continuous scale					
Ethnic German inflow	0.156* (0.085)	0.157** (0.062)	0.118* (0.060)	0.057 (0.044)	0.121 (0.075)
Mean of dep. var.	5.883	5.957	5.378	3.988	5.813
Std. dev. of dep. var.	2.627	2.739	2.434	2.230	2.871
Observations	7,645	7,649	7,644	7,656	7,644
Panel B: Attitudes measured using a dummy for being above the midpoint of the scale					
Ethnic German inflow	0.026** (0.013)	0.017* (0.010)	0.024* (0.012)	0.007 (0.007)	0.026** (0.010)
Mean of dep. var.	0.626	0.615	0.579	0.262	0.592
Std. dev. of dep. var.	0.484	0.487	0.494	0.440	0.491
Observations	7,645	7,649	7,644	7,656	7,644

Notes - Data are drawn from the SOEP (survey year: 2016). The sample includes German-born individuals aged 18-59 at the time of the interview. Standard errors in parentheses are clustered at the ROR level. All models include controls for gender, age and its quadratic term, education, and marital status. All regressions further include survey year fixed effects, as well as ROR-level controls for the size of the population, the share of unemployed, and the proportion of individuals with a college-level education. The key explanatory variable is measured in logarithms.

* Significant at 10%; ** significant at 5%; *** significant at 1%.

Table A.3: Attitudes towards Refugees in the Sample of German Natives and Immigrants – Alternative Definitions of Attitudes

Dep. var.:	(1) Refugees are good for the economy	(2) Refugees enrich cultural life	(3) Refugees make Germany a better place	(4) More opportunities in the short term	(5) More opportunities in the long term
Panel A: Attitudes measured using the continuous scale					
Immigrant	-0.727*** (0.099)	-0.725*** (0.080)	-0.449*** (0.082)	-0.067 (0.072)	-0.734*** (0.103)
Mean of dep. var.	5.640	5.723	5.225	3.956	5.569
Std. dev. of dep. var.	2.678	2.739	2.484	2.254	2.867
Observations	10,536	10,523	10,515	10,516	10,498
Panel B: Attitudes measured using a dummy for being above the midpoint of the scale					
Immigrant	-0.115*** (0.016)	-0.096*** (0.015)	-0.099*** (0.014)	0.010 (0.013)	-0.124*** (0.016)
Mean of dep. var.	0.589	0.584	0.548	0.264	0.553
Std. dev. of dep. var.	0.492	0.493	0.498	0.441	0.497
Observations	10,536	10,523	10,515	10,516	10,498

Notes - Data are drawn from the SOEP (survey year: 2016). The sample includes natives and immigrants aged 18-59. Standard errors in parentheses are clustered at the ROR level. All models include controls for gender, age and its quadratic term, education, and marital status. All regressions further include survey year fixed effects, as well as ROR-level controls for the size of the population, the share of unemployed, and the proportion of individuals with a college-level education.

* Significant at 10%; ** significant at 5%; *** significant at 1%.

Table A.4: Attitudes towards Refugees - First vs. Second Generation Immigrants

Dep. var.:	(1) Refugees are good for the economy	(2) Refugees enrich cultural life	(3) Refugees make Germany a better place	(4) More opportunities in the short term	(5) More opportunities in the long term	(6) Financial support for refugees Current	(7) Financial support for refugees Future
Panel A: First generation immigrants							
First generation immigrants	-0.111*** (0.017)	-0.130*** (0.013)	-0.033** (0.014)	-0.005 (0.014)	-0.128*** (0.015)	-0.092*** (0.014)	-0.102*** (0.018)
Mean of dep. var.	0.348	0.372	0.240	0.349	0.385	0.333	0.378
Std. dev. of dep. var.	0.476	0.483	0.427	0.477	0.487	0.471	0.485
Observations	10,536	10,523	10,515	10,516	10,498	10,600	10,473
Panel B: Second generation immigrants							
Second generation immigrants	0.023 (0.018)	0.022 (0.015)	0.026* (0.013)	0.035** (0.017)	0.005 (0.016)	0.094*** (0.017)	0.084*** (0.020)
Mean of dep. var.	0.348	0.372	0.240	0.349	0.385	0.333	0.378
Std. dev. of dep. var.	0.476	0.483	0.427	0.477	0.487	0.471	0.485
Observations	10,536	10,523	10,515	10,516	10,498	10,600	10,473

Notes - Data are drawn from the SOEP (survey year: 2016). The sample includes natives and immigrants aged 18-59. Standard errors in parentheses are clustered at the ROR level. All models include controls for gender, age and its quadratic term, education, and marital status. All regressions further include survey year fixed effects, as well as ROR-level controls for the size of the population, the share of unemployed, and the proportion of individuals with a college-level education.