Master Degree in Economics and Finance

"Anti-Refugee Sentiments, Fake News, and Voting Outcomes: Evidence from Germany"

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ABSTRACT IN ENGLISH (100 words)**:**

How do local populations respond to a large-scale influx of refugees? This paper studies the European refugee crisis and its effects on anti-refugee sentiments in Germany. To identify the causal effects of refugee presence, we exploit the fact that a large number of refugees were hosted in military buildings decommissioned prior to the refugee crisis. Using these inactive military buildings as an instrument, we analyse the effects of refugees on far-right voting, violence against refugees, and the spread of fake news. We find that a one-standard-deviation increase in the number of refugees hosted in a district leads to a 3.4 percentage points decrease in the vote share of the far-right party Alternative für Deutschland (AfD) in the 2017 election. Furthermore, districts with more refugees experience proportionally less violence against refugees. However, we find no clear effect on the spread of fake news. Overall, our results indicate that the presence of refugees does not inflame anti-refugee sentiments, but rather weakens them - findings that are consistent with the contact hypothesis.

ABSTRACT IN CATALAN (100 words):

Com responen les poblacions locals a una afluència massiva de refugiats? Aquest article estudia la crisi europea dels refugiats i els seus efectes sobre els sentiments antirrefugiats a Alemanya. Per identificar els efectes causals de la presència dels refugiats, explorem el fet que una gran quantitat de refugiats es van allotjar en edificis militars desmantellats abans de la crisi dels refugiats. Utilitzant aquests edificis militars inactius com a instrument, analitzem els efectes dels refugiats en la votació d'extrema dreta, la violència contra els refugiats i la propagació de notícies falses. Ens trobem amb un increment d'un desviació estàndard en el nombre de refugiats allotjats en un districte condueix a una disminució de 3,4 punts percentuals en la part del vot del partit d'extrema dreta Alternative für Deutschland (AfD) en les eleccions de 2017. A més, els districtes amb més refugiats experimenten proporcionalment menys violència contra els refugiats. Tanmateix, no trobem cap efecte clar sobre la propagació de notícies falses. En general, els nostres resultats indiquen que la presència de refugiats no inflama els sentiments antirefugiats, sinó que els debilita, resultats que són coherents amb la hipòtesi de contacte.

KEYWORDS IN ENGLISH (3)**:** far-right populism, fake news, immigration, refugees, voting

KEYWORDS IN CATALAN (3)**:** populisme d'extrema dreta, notícies falses, immigració, refugiats, votació

Master Project

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Abstract

How do local populations respond to a large-scale influx of refugees? This paper studies the European refugee crisis and its effects on anti-refugee sentiments in Germany. To identify the causal effects of refugee presence, we exploit the fact that a large number of refugees were hosted in military buildings decommissioned prior to the refugee crisis. Using these inactive military buildings as an instrument, we analyse the effects of refugees on far-right voting, violence against refugees, and the spread of fake news. We find that a one-standard-deviation increase in the number of refugees hosted in a district leads to a 3.4 percentage points decrease in the vote share of the far-right party *Alternative für Deutschland* (AfD) in the 2017 election. Furthermore, districts with more refugees experience proportionally less violence against refugees. However, we find no clear effect on the spread of fake news. Overall, our results indicate that the presence of refugees does not inflame anti-refugee sentiments, but rather weakens them - findings that are consistent with the contact hypothesis.

Keywords: far-right populism, fake news, immigration, refugees, voting

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1 Introduction

How does a large-scale influx of refugees affect the local population's attitudes towards refugees? Over the last few years, a refugee crisis prompted by civil war and disaster in Africa and the Middle East has engulfed Europe. At the peak of the crisis, more than one million refugees crossed the Mediterranean Sea in 2015, with Germany alone registering 441,800 first-time asylum applicants in that year (Eurostat, 2018). Concurrently, we have witnessed the rise of far-right parties across Europe and an increase in anti-refugee sentiment.

In this paper, we take a closer look at how locals react when faced with a large influx of refugees. We focus on Germany, which had received the highest number of asylum applications during the refugee crisis and has also seen the far-right party *Alternative für Deutschland* (AfD) grow from 4.7% of the vote in 2013 to 12.6% in 2017. We analyse the effect that increasing numbers of refugees in a district have on the vote share of the AfD, the proportional number of violent attacks against refugees, and the prevalence of fake news stories about refugees.

To identify the causal effect of refugee presence, we exploit the fact that many refugees were housed in inactive military buildings that were decommissioned following the end of the Cold War as well as the end of conscription in Germany. We provide evidence that the location of decommissioned buildings is plausibly exogenous and constitutes a relevant instrumental variable for the number of refugees assigned to each district. We estimate that a one-standard-deviation increase in the number of refugees decreases the vote share of the AfD in the following 2017 federal elections by 3.4 percentage points. For the same increase in refugees, proportional violence against refugees, too, decreases by 0.54 standard deviations. Although we cannot replicate these results for the prevalence of fake news stories targeting refugees, overall our findings suggest that the direct presence of refugees serves to dampen local anti-refugee sentiment. We interpret our findings as support for the 'contact hypothesis' - that greater exposure to refugees on a local level may reduce anti-refugee sentiment through increased familiarity and less fear of the unknown.

A burgeoning literature has consistently found that immigrant inflows lead to an *increase* in far-right voting (e.g. Dustmann *et al.*, 2016; Halla *et al.*, 2017; Harmon, 2017; Mayda *et al.*, 2016; Otto & Steinhardt, 2014). Nevertheless, the arrival of immigrants has not universally been found to increase votes for the right. Vertier & Viskanic's (2018) recent study of the consequences of the relocation of migrants from the 'Jungle de Calais' across France finds, on the contrary, that the presence of a

temporary migrant centre in an area reduces the far-right vote. Similarly, Steinmayr (2017) finds that municipalities in Austria that hosted refugees during the ongoing European refugee crisis lend fewer votes to the far-right Freedom Party.

In fact, the only overarching consensus that can be drawn from the recent literature is that the characteristics of both regions and migration patterns matter in determining the effect of immigration on political outcomes. Vertier & Viskanic (2018) attribute their results to the fact that each migrant centre only welcomed a very small number of migrants. Indeed, although the overall effect on far-right voting of the migrant resettlement is negative, in municipalities that saw the arrival of more than 39 immigrants per 1000 inhabitants, the impact on far-right voting is positive. Dustmann *et al.*'s (2016) study of historical refugee flows in Denmark also highlights the contingency of their results. Halla *et al.* (2017) and Edo *et al.* (2018) find that migrant characteristics also matter.

Crucially, studies that focus explicitly on refugees as opposed to immigrants in general are more likely to report negative effects of refugee presence on far-right voting (e.g. Steinmayr, 2017), suggesting that refugees might perhaps be viewed differently to migrants in general, and particularly if they are prohibited from participating in the local labour market (as in our case). Indeed, it is migrants that have characteristics that most directly put them in labour-market competition with locals that are found to most strongly drive anti-immigrant sentiment in Halla *et al.* (2017) and Edo *et al.* (2018).

There are three main mechanisms repeatedly posited in the literature through which researchers seek to explain the link between immigration and far-right voting: the contact hypothesis; the effect of immigrants on the local labour market; and immigrants' effect on 'compositional amenities'. The first provides a basis upon which increasing immigration might decrease far-right voting, whereas the latter two purport to explain the opposite phenomenon.

Allport's (1954) contact hypothesis argues that under certain conditions, contact between an in-group and an out-group reduces prejudice. Those conditions are as follows: equal status of the groups in the situation; common goals or intergroup cooperation; the support of the authorities, law or custom. Although it is clearly not the case that refugees and locals share equal status, Steinmayr (2017) argues that the conditions are broadly met in Austria following the recent migrant crisis: contact between natives and refugees was facilitated by local authorities and NGOs, many municipalities held welcome events to introduce refugees to the local populace and/or introduced them in the local papers, and refugees were also not allowed to

work until their asylum application was approved and stayed in organised accommodation paid for by the state – this meant that refugees did not have any negative economic effects on host municipalities. These circumstances roughly approximate those in Germany in the context that we are interested in, as described in the Institutional Background section. In contrast, Steinmayr finds that exposure to refugees in Austrian municipalities at the Czech or German border increases far-right support, explaining this as precisely due to the fact that the conditions for the contact hypothesis to hold are not present: refugees mostly stayed only a few hours before continuing their journey across the border and so contact was not facilitated.

Vertier & Viskanic (2018) also interpret their results, outlined above, as exemplifying the mechanisms posited by the contact hypothesis. Indeed, the contact hypothesis has been corroborated by numerous studies (e.g. Schindler & Westcott, 2017; Hayes & Dowds, 2006). Nevertheless, Dustmann *et al.*'s (2016) finding that Danish municipalities with a higher share of pre-existing immigrant shares are more likely to vote for anti-immigration parties contradicts this hypothesis; however, it should be pointed out that this study looks at a wave of refugees entering Denmark from 1986 to 1998, as opposed to the Steinmayr (2017) and Vertier & Viskanic (2018) studies, which are set in the context of the most recent wave of large-scale migration.

Many studies have looked at the influence of immigrants on the local labour market as a mechanism for the evolution of negative attitudes towards migrants and growth in far-right voting (e.g. Dippel *et al.*, 2017; Becker & Fetzer, 2016; Barone *et al.*, 2016). Nevertheless, this mechanism is likely to be less active in the context that we are looking at, given that refugees were not allowed to work in Germany until their asylum process has been approved.

The effect of migrants on 'compositional amenities' - the way in which changes in the composition of the local population affects the benefits that natives derive from their surroundings and their public services - may be more important in the context that we are examining. Card *et al.* (2012) find that concerns over these compositional amenities are 2-5 times more important in explaining variation in individual attitudes towards immigrants than job-market concerns. Halla *et al.* (2017) and Barone *et al.* (2016) also aver that negative reactions to immigration are largely down to its effect on compositional amenities. Edo *et al.*'s (2018) finding that support for far-right candidates is driven by non-European immigrants also suggests the importance of compositional amenities, since it is only the arrival of immigrants with a highly distinct culture that has a strongly negative effect.

Nevertheless, as Edo *et al.* (2018) point out, it might be the case that refugees

are viewed differently to other immigrants, perhaps being seen as more in-need. Moreover, the vast majority of the literature to date has focused on immigration more broadly. Steinmayr (2017) cites Dustmann *et al.* (2016) as the only other study looking at the effect of refugees specifically on voting outcomes, and claims to be the first study looking at the effect of the current European refugee crisis on political outcomes. Steinmayr's work thus suggests that, in the context that we are looking at, the contact hypothesis might be the most relevant mechanism in play. In the context of the same crisis, Dinas *et al.* (2016) find that Greek islands that received larger flows of refugees just before the 2015 election saw a larger increase in vote shares for Golden Dawn, a far-right party; however, they also interpret their findings as supporting the contact hypothesis as asylum-seekers quickly move on from their arrival island to the Greek mainland and so the conditions for positive contact between refugees and locals are not met.

Voting outcomes have also been associated with other negative reactions towards refugees. Jäckle & König (2017) find the strength of the right-wing AfD party in a given area boosts the probabilities of attacks on refugees occurring there and in neighbouring municipalities. However, they do not relate this to the number of refugees in an area. Previous studies have also found large regional spillover effects in the way in which ethnic violence begins and spreads (e.g. Braun, 2011; Falk *et al.*, 2011). Social media also plays a role in spreading hate. In the context of the current European refugee crisis, in Germany, Müller & Schwarz (2017) find that right-wing anti-refugee posts on social media are predictive of violent crimes against refugees, and indeed act as a propagation mechanism between online hate speech and real-life attacks; however, no study has looked at what drives anti-refugee sentiment in the media.

Thus, our study provides a novel contribution to the literature in addressing how the local number of refugees affects anti-refugee sentiment as manifested in anti-refugee violence and fake news. These are two completely new outcome variables in terms of studying the effect of refugee immigration in a region. Furthermore, our study is the first looking at the effect of the recent refugee crisis on voting outcomes in Germany, a country that took on a substantial number of refugees and where we have seen a recent surge in far-right voting. In this sense we go beyond Steinmayr (2017), the closest paper to ours, which focuses on Austria – a country much more peripheral in terms of Europe's response to the refugee crisis. Whereas Steinmayr can only look at a binary variable - the presence of refugees or not in a district - we examine how the *number of refugees* in a district affects political outcomes. Moreover, whereas Vertier & Viskanic (2018) analyse the effect of the presence of

a mere handful of refugees (around 30 in most districts), the average number of refugees in each district that we look at is in the thousands. Finally, our use of decommissioned military buildings as an instrument for refugee presence is also an original contribution to the literature.

The rest of this paper is structured as follows: section 2 provides the institutional background to the refugee crisis, the decommissioning of military buildings and the rise of the far-right in Germany; section 3 describes our data; section 4 lays out our empirical strategy, before section 5 presents the results; section 6 concludes.

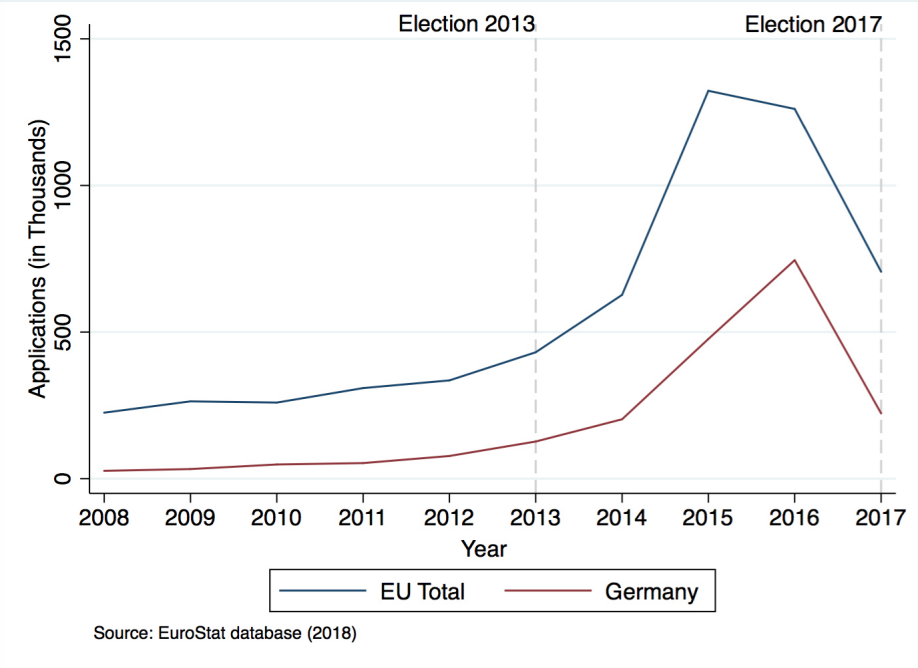
2 Institutional Background

2.1 The European Refugee Crisis

In recent years, political conflict in the Middle East and Northern Africa has lead to an influx of refugees to European countries. Since 2008 there have been 5,033,545 refugee applications in Europe, with 1,789,965 to Germany alone (Eurostat, 2018). The event commonly labelled as the refugee crisis began in Europe in 2015. The crisis encompassed both the great magnitude of refugees seeking asylum and the legislature that failed to effectively manage such large inflows. The Dublin Regulation was the European Union's legislation framework on incoming asylum seekers. It stated that asylum seekers had to apply for protection within the first EU country they entered. This legislature created an uneven distribution of refugees during the crisis, Southern Mediterranean member states received larger numbers due to their proximity to areas of conflict. In August 2015, the German Federal Office for Migration and Refugees (BAMF) announced that it would no longer follow the Dublin Regulation. In the aftermath, Germany faced rapidly rising numbers of refugee arrivals.

Figure 1 shows the development of asylum application numbers within the European Union. It highlights the sudden large-scale increase during the crisis with over two million refugees arriving in 2015 and 2016. Importantly, Germany has by far become the most important destination country for incoming refugees: In 2014, 202,645 refugees applied for asylum in Germany accounting for 32.3% of the total applications within the EU. At the height of the crisis in 2016, however, Germany received 745,155 refugees or 59.1% of all applications (Eurostat, 2018).

Figure 1: *Total Number of Refugee Applications*



2.2 The Distribution of Refugees in Germany

All incoming refugees to Germany wanting to apply for asylum are distributed across the country by a multi-stage allocation procedure. After the initial crossing of the border and a first registration, a distribution system determines the location of the reception center and which branch of the BAMF will be responsible for accommodation during the initial stage of the asylum application process. In order to ensure a fair allocation, the system is based on a quota called *Königsteiner Schlüssel* that calculates the share of refugees to be taken in by each federal state based on tax revenue and population size (Asylum Information Database, 2017). Yet, there exists no standardised mechanism for the distribution and housing of refugees below the state level. In fact, there are reasons to believe that the allocation of refugees at the district level is endogenous in reference to local preference: for example, districts with stronger anti-refugee attitudes might be able to lobby for receiving less refugees.

After the initial assignment to federal states and districts, all incoming refugees are sent to and housed in so-called collective accommodation centres (*Gemeinschaftsunterkünfte*). Importantly, as long as their asylum status is still undecided, they are obliged to stay in the district to which they are assigned for the whole duration of the application procedure (§57 Asylum Act). Responsibility for housing at this stage often lies with the districts and several different forms of accommodation have

been provided. On the local level, accommodation consists of collective housing in (formerly empty) apartment blocks, in housing containers, and in former military buildings (Asylum Information Database, 2017). In particular, the former military buildings played a major role in facing the accommodation shortages that were witnessed in the wake of the crisis due to the large unanticipated spikes in the number of incoming refugees. It is important to note that their decommissioning was not due to the refugee influx, but was instead the result of reforms - briefly discussed in the following section - made within the German Army.

2.3 The Decommissioning of Military Buildings

Following the end of the Cold War, the German Army considerably reduced its active military force. As there were no more salient military threats, Germany opted for a significant reduction in the number of its military buildings from the 1990s onward. In Figure 2 we depict the annual number of decommissioned buildings since 1990.

Further reforms were announced by Defence Minister Thomas de Maizière in June 2011, whose main focus was to end military conscription and reallocate resources to improve the functioning of the army. The reforms also included a revision of the troop deployment plan within Germany (*Stationierungkonzept*) which led to the decommissioning of further 66 military buildings until 2014 (Federal Ministry of Defence, 2011). The location of the remaining buildings is based on functionality, cost-effectiveness, attractiveness and presence throughout Germany and there is no indication that buildings were systematically decommissioned in some regions at the expense of others. As we can see from the maps shown in Figure A1a in the Appendix, inactive military buildings are located across all parts of Germany, in urban as well as rural areas.

There is no evidence that military buildings were decommissioned with the aim of hosting refugees. As Figure 2 shows buildings were decommissioned following the Cold War, during further military reduction in the mid 2000s and directly after the end of conscription in 2011. Moreover, there were very few buildings decommissioned after 2014. This number is especially low at the peak of the crisis in 2015 and 2016 when accommodation got scarce and there is no evidence that military buildings were systematically decommissioned to host refugees. However, to rule out the possibility that some military buildings were decommissioned in order to host refugees, we exclude any military buildings decommissioned after 2014 from our analysis.

Figure 2: *Decommissioning of Military Buildings*

2.4 The Rise of the Far-Right in Germany

Concurrently, there has been a rise of far-right movements and anti-refugee sentiments in Germany. Most notably, the far-right party *Alternative für Deutschland* (AfD), only recently founded in 2013, has seen a significant growth in popularity in recent years. In the 2013 federal election, the party had only captured 4.7% of the votes, thus not meeting the threshold for seat allocation within the German parliament. In 2017, they obtained 12.6% of national votes securing their position as the third largest party in parliament and the leader of the opposition. The political platform of the AfD focuses distinctively on German sovereignty and nationalism, railing against perceived threats from immigrants and refugees.

As depicted by the two horizontal lines in Figure 1, the large-scale influx of refugees during the crisis occurred exactly in between the last two elections. Although there is no clear evidence on the individual characteristics of AfD voters, a key pattern is the significantly stronger results of the party in the former German Democratic Republic in East Germany as shown by the map in Figure A1d in the Appendix. Past research has furthermore pointed out how the historical legacy of surveillance led to a long-term erosion of social capital in the East (Jacob & Tyrell, 2010). Overall, this initial evidence provides a first indication that the presence of refugees might be playing an important role in explaining the rising far-right vote share.

3 Data

At the time of analysis, Germany consists of 16 federal states (*Länder*) that are further subdivided into 38 regions (*Regionen*) and 401 districts (*Kreise*). Districts constitute the most detailed level at which data on refugee presence is available and thus we conduct all analyses at this level.

Military Buildings. For our instrumental variable, we collect information on 1605 active and 528 inactive military buildings from the Center for Military History and Social Science of the German Army (*Zentrum für Militärgeschichte und Sozialwissenschaften der Bundeswehr*, ZMSBw). The ZMSBw allows us to collect information on the location of buildings and, for inactive ones, the year they were decommissioned. To avoid that buildings were decommissioned due to the accommodation shortage at the height of the crisis, we exclude all buildings that were decommissioned after 2014.

Refugees. For each district we collect the number of refugees with open application status from the Federal Statistical Office (*Statistisches Bundesamt*, Destatis). We focus on refugees with open application status because as discussed above they are obliged to reside in the district they are allocated to and we thus avoid problems of endogenous sorting.

Voting. We retrieve data on far-right voting from the official electoral records provided by Destatis. As outlined above, we focus on the share of votes received by the AfD party to measure the strength of the far-right vote. We calculate the AfD's vote share for each district in the federal parliamentary elections of 2013 and 2017, which allows us to have a measure before and after the peak of the refugee crisis. The vote shares for all other parties are constructed using the same approach.

Violence. We collect information on 7587 attacks on refugees between 2015 and 2018 from the *Amadeu Antonio Foundation*. The data is based on official parliamentary or government reports (75.8 percent of all attacks), newspaper articles (20.2 percent) and official police reports (4 percent). For all districts we calculate the total number of attacks between 2015 and 2018 per thousand refugees.

Fake News. We collect information on 460 fake news about refugees stories between 2014 and 2018 provided by the website *Hoaxmap.org*. The Hoaxmap is an online project whose goal is to collect rumours and news stories about refugees that have been proven to be false. These fake news stories can range from rumours that refugees receive free driving classes (Meißen, 29/06/2017) to false accusations of rape (Holzkirchen, 30/12/2015). For every entry the list includes the location of the

refuted rumour and a source from a well-regarded newspaper. For all districts we calculate the total number of fake news per thousand refugees between 2014 and 2018.

Controls. We complete our dataset by including an array of district socio-economic and political characteristics as controls. From the Federal Statistical Office, we retrieve data on the population size, population density, foreign share of population, unemployment rate and real GDP per capita for each district. From the Federal Criminal Police Office (*Bundeskriminalamt*, BKA), we take the crime rate, which measures the number of criminal offenses per 100,000 inhabitants.

Summary statistics for all variables are presented in Table A1 in the Appendix. We also describe all instances of missing data. In the end we are left with 384 districts and 37 regions.

4 Empirical Strategy

This paper seeks to study the causal relationship between the presence of refugees and various socio-political outcomes. Naive estimates of the effect of refugee presence on far-right populism are however likely to be inconsistent because the refugee allocation may be endogenous on attitudes towards refugees. If, for example, refugees were systematically allocated to areas with historic migrant presence and more far-right populism, the OLS estimate would be biased upwards. Conversely, if districts with higher far-right vote shares could exert political pressure to opt-out from the refugee allocation process, the OLS estimate would be biased downwards.

We pursue an instrumental variable strategy to identify the causal effect of refugee presence. In particular, we exploit the fact that emergency accommodation for refugees was scarce at the height of the refugee crisis in 2015. To counter the lack of available accommodation, the German state used former military buildings that had been decommissioned following the end of the Cold War and the end of conscription in 2011. The raw correlation coefficient between inactive military buildings and the log number of refugees with open applications is 0.31.

In itself, inactive military buildings are not a valid instrument for refugee presence. For example, inactive military buildings and number of refugees are both positively correlated with district population. To account for this, we control for the number of *active* military buildings in all specifications. If the decommissioning of military buildings was random with respect to our variables of interest such that districts

with active and inactive military buildings do not differ systematically, then the variation in inactive military buildings, controlling for active military buildings, is an exogenous instrument for refugee presence.

In particular, we estimate the following Two-Stage Least Squares equations:

$$lnRef_{dr} = \pi_0 + \pi_1 MB_{inactive,\,dr} + \pi_2 MB_{active,\,dr} + \boldsymbol{\gamma'} \boldsymbol{X_{dr}} + \xi_r + \varepsilon_{dr} \tag{1}$$

where $lnRef_{dr}$ is the log number of refugees with open application status in district d in region r, $MB_{inactive,\,dr}$ is the number of inactive military buildings, $MB_{active,\,dr}$ is the number of active military buildings, $\boldsymbol{X_{dr}}$ is a vector of control variables including population, squared population, population density, GDP per capita, and unemployment rate, and ξ_r denotes region fixed effects, and

$$Y_{dr} = \beta_0 + \beta_1 \widehat{lnRef}_{dr} + \beta_2 MB_{active,\,dr} + \boldsymbol{\delta'} \boldsymbol{X_{dr}} + \xi_r + u_{dr} \tag{2}$$

where Y_{dr} is one of our outcomes variables of voting, violence or fake news, $\widehat{lnRef}_{dr}$ is the log number of refugees fitted from equation (1), and $MB_{active,\,dr}$, $\boldsymbol{X_{dr}}$, and ξ_r control for active military buildings, demographic and economic district characteristics and region fixed effects as before. In all regressions we cluster standard errors at the regional level. Our coefficient of interest is $\hat{\beta}_1$, the effect of refugee presence on our outcome variables. For $\hat{\beta}_1$ to give us a consistent estimate of the local average treatment effect, our instrument needs to fulfill the assumptions of exogeneity, the exclusion restriction and relevance. We will justify each of these in turn.

Exogeneity. Firstly, we assume $E[\varepsilon_{dr}|MB_{active,\,dr}, X_{dr}, \xi_r] = 0$, i.e. that the number of inactive military buildings conditional on active military buildings and further controls is unrelated to any unobserved characteristics that may affect refugee presence. This is fulfilled if the decommissioning of buildings prior to the refugee crisis was essentially random. Indeed, the plan for troop deployment 2011 of the German Army indicates that decommissioning of buildings was not systematically related to district characteristics (Federal Ministry of Defence, 2011). In fact, one key motivation for the new deployment plan is widespread presence of active buildings and decommissioning does not seem to differ by region. The maps in Figure A1a and A1b in the Appendix suggest that the locations of inactive buildings do not systematically differ from the locations of active military buildings. Figure A1c indicates that the residual variation that remains after regressing inactive on active military buildings, controls and region fixed effects exhibits no particular pattern. Moreover, in Panel A of Table A2 we show that inactive military buildings are not significantly

related to various pre-treatment characteristics once we control for active military buildings. In particular, inactive military buildings do not predict the district's foreign share of population, AfD vote share or economic characteristics such as GDP per capita or crime and unemployment rates before the refugee crisis. The association with population is small but statistically significant (p-value = 0.093). To account for this, we control for a second order polynomial of population in all specifications. Moreover, Table 1 suggests that military buildings do only affect presence of refugees with open application status, the only type of refugees that was hosted in military buildings. For all other types of refugees there is no effect. Overall, our evidence suggests that the variation in inactive military buildings conditional on active military buildings and further controls is as good as random.

Exclusion Restriction. Moreover, we assume $E[u_{dr}|MB_{active,\,dr}, X_{dr}, \xi_r] = 0$, i.e. that the decommissioning had no effect on anti-refugee sentiments other than through local refugee presence. For example, a potential concern is that the decommissioning of large military facilities may lead to unemployment and have adverse effects on economic development in the district which in turn may push local voters towards far-right attitudes. In Panel B of Table A2 we provide evidence that this is not the case. Districts with military buildings decommissioned between 1970 and 2000 do not experience different economic or political development until 2010. In particular, we find no effects of decommissioning on GDP per capita, the local unemployment and crime rates, and AfD vote share in 2013 amongst others. Furthermore, we have no evidence of any other route through which the decommissioning may affect our outcome variables.

Relevance. Table 1 shows the first-stage results from equation (1). As expected, column (1) indicates that inactive military buildings predict the number of refugees with open application status even after accounting for active military buildings and further controls. For each additional inactive military building, the number of refugees with open application increases by approximately 5.4 percent. On the other hand, column (2) indicates that there is no effect of military buildings on refugees that are accepted (and free to move) or rejected (and hosted elsewhere). Indeed, our instrument is only relevant for refugees with open application status, the only group that is actually hosted in inactive buildings. To evaluate the strength of our instrument we provide two different F-statistics. Because we cluster standard errors at the region level, the Cragg-Donald F-statistic is invalid. Instead, we report the Kleibergen-Paap F-statistic that remains valid with non i.i.d. errors. While Stock & Yogo (2005) provide critical values for the the Cragg-Donald F-statistic, there exist no such critical values for the Kleibergen-Paap F-statistics. Thus, we also document

the Effective F-statistic by Montiel Olea & Pflueger (2013) for which the authors provide critical values (which we reproduce in Table A3 in the Appendix). The Kleibergen-Paap F-statistic of 14.94 and the Effective F-statistic of 15.32 indicate that our instrument is reasonably strong. In particular, 15.32 exceeds the critical value of 15.06 (see Table A3) and we can thus exclude any bias larger than 20 percent of the OLS bias with 95 percent confidence. In the robustness section we also discuss weak IV confidence intervals based on the Anderson-Rubin statistic for all of our coefficients.

Table 1: *First Stage*

	(1) Log Refugees Open application status	(2) Log Refugees Accepted or Rejected status
Inactive MB	0.0535***	0.0153
	(0.0138)	(0.0143)
Active MB	Yes	Yes
Controls	Yes	Yes
Region FE	Yes	Yes
Observations	384	384
F (Kleibergen-Paap)	14.94	1.13
F (Effective)	15.32	1.16

Notes: Standard errors clustered at the regional level are shown in parentheses. Controls include population, squared population, population density, unemployment rate and GDP per capita for each district as of 2010. Refugees with open application status are obliged to stay in their group accommodation, refugees with accepted and tolerated status are free to move and generally leave previous group accommodation, refugees with denied status are moved to detention centers. Effective F-Statistic by Montiel Olea & Pflueger (2013). *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level.

5 Results

5.1 Elections

Table 2 presents our results for the effect of refugee presence on voting. We report coefficients from the reduced form (RF), the naive OLS estimation, and our 2SLS estimate as specified above. We look at the vote share of the AfD in the German federal elections in 2013 and 2017 as our main variables measuring far-right voting. Because relatively few refugees arrived in Germany and were hosted in inactive

military buildings before the height of the crisis, election outcomes in 2013 serve as a placebo check. Indeed, we see a very small and statistically insignificant effect of refugee presence on the AfD's vote share in 2013. For 2017 the effect is almost six times larger and statistically significant at the 5 percent level. In particular, column (6) indicates that a one percent increase in the number of refugees in a district decreases AfD vote share by 3.6 percentage points. Equivalently, a one-standard-deviation increase in the number of refugees decreases the AfD vote share by 0.65 standard deviations. This effect is large but reasonable given that the AfD's political platform focused almost exclusively on the refugee crisis in the 2017 election. Moreover, we can compare OLS and 2SLS estimates to understand the direction of the selection bias. As indicated by column (4), the OLS effect is close to zero, suggesting that OLS overestimates the true effect.

Table 2: *Effect on Far-Right Voting*

	(1) RF AfD13	(2) RF AfD17	(3) OLS AfD13	(4) OLS AfD17	(5) 2SLS AfD13	(6) 2SLS AfD17
Inactive MB	-0.031	-0.185**				
	(0.02)	(0.068)				
Log Refugees			0.07	-0.02	-0.61	-3.60**
			(0.07)	(0.33)	(0.39)	(1.57)
Dep. Var. Mean	4.64	13.24	4.64	13.24	4.64	13.24
Dep. Var. Std. Dev.	1.06	5.23	1.06	5.23	1.06	5.23
Active MB	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	394	394	384	384	384	384
Regions	38	38	37	37	37	37
R-squared	0.674	0.859	0.673	0.861	0.600	0.776
F (Kleibergen-Paap)					14.94	14.94
F (Effective)					15.32	15.32

Notes: Standard errors clustered at the regional level are shown in parentheses. Controls include population, squared population, population density, unemployment rate and GDP per capita for each district as of 2010. Refugees are measured as the logged number of refugees with open application status. Effective F-Statistics by Montiel Olea & Pflueger (2013). *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level.

To analyse further why increased refugee presence causes a decline in far-right voting,

we consider additional outcomes from the 2017 election. Table A4 in the Appendix presents the effect of the logged refugee number on turnout as well as the vote share of all other parties in the German parliament. Column (1) indicates that refugee presence has no significant effect on turnout. From this we conclude that the presence of refugees does not contribute to net mobilisation of voters. Columns (2) to (6) show the effect on the vote share of all other parties. We find no significant effects for the two major parties - the conservative Union (CDU/CSU) and the social-democratic SPD - that formed the government coalition both after 2013 and 2017. Similarly, we find no significant effect for the liberal opposition party, the FDP. However, refugee presence increases the vote share of the two left-wing opposition parties - the Left and the Greens - that are seen as strongly pro-refugee. Although we do not have individual-level voting data, our results suggest a movement of voters to the left across the entire spectrum. Local refugee presence may have demobilised AfD voters and mobilised left-wing support, or may even have led AfD voters to switch to more moderate parties.

In the light of the contact hypothesis, our results can be interpreted as showing how increased contact with refugees may induce more positive attitudes toward them, leading voters to switch from anti-refugee parties to pro-refugee parties.

5.2 Violence

Table 3 presents our results for the effect of refugee presence on violence against refugees. Column (3) indicates that a one percent increase in the number of refugees with open application status decreases the number of violent attacks on refugees by 9.3 per thousand refugees. Equivalently, a one-standard-deviation increase in refugees decreases the level of violence by 8.8 attacks per thousand refugees or 0.54 standard deviations. The effect is statistically significant at the 5 percent level.

In conjunction with our results for far-right voting, these findings provide further evidence in favour of the contact hypothesis, that increased exposure to refugees reduces anti-refugee sentiment. Our interpretation of these results is that increased contact with refugees leads to more favourable attitudes towards them, and this more favourable disposition is then manifested in decreased levels of violence.

Table 3: *Effect on Violence against Refugees*

	(1) RF	(2) OLS	(3) 2SLS
	Attacks (per 1000 refugees)		
Inactive MB	-0.496*		
	(0.25)		
Log Refugees		-8.38***	-9.28**
		(1.9)	(4.29)
Dep. Var. Mean	11.91	11.91	11.91
Dep. Var. Std. Dev.	16.4	16.4	16.4
Active MB	Yes	Yes	Yes
Controls	Yes	Yes	Yes
Region FE	Yes	Yes	Yes
Observations	384	384	384
Regions	37	37	37
R-squared	0.468	0.516	0.516
F (Kleibergen-Paap)			14.94
F (Effective)			15.32

Notes: Standard errors clustered at the regional level are shown in parentheses. Controls include population, squared population, population density, unemployment rate and GDP per capita for each district as of 2010. Refugees are measured as the logged number of refugees with open application status. Effective F-Statistics by Montiel Olea & Pflueger (2013). *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level.

5.3 Fake News

Table 4 presents our results for the effect of refugee presence on fake news stories about refugees. For the effect to be consistent with the contact hypothesis and our findings on voting and violence in particular, we would expect a negative effect of refugee presence on fake news. Instead, we find a positive relationship between fake news and refugee presence, even if the effect is economically small and statistically insignificant. A reason for this may be the low quality of our data on fake news. The data set covers only 460 fake news stories (compared to 401 districts) and thus there is little variation in our outcome variable. Moreover, our fake news data contains only information on the location of the rumour's target, not on the location of the origin of the rumour. As a consequence, our data tends to attribute fake news stories to districts with refugee welcome centers even if they originated elsewhere.

For further analysis we would need a better proxy for the area of origin of each fake news story or at least the areas in which each story is covered. One idea here would be to take the 460 fake news stories and use an online newspaper database, such as Factiva, to identify where each of the stories was covered. Similar to standard work in the economics of media, we would manually assign key words to each fake news story to identify all news articles that reported on the story. Exploiting the fact that many German newspapers are local, we could estimate local coverage of all fake news stories on a much broader basis. Following this more sensible approach, we would expect to find results that are more aligned with the contact hypothesis and the other findings in this paper.

Table 4: *Effect on Fake News about Refugees*

	(1)	(2)	(3)
	RF	OLS	2SLS
	Fake News (per 1000 refugees)		
Inactive MB	0.12		
	(0.096)		
Log Refugees		-1.34**	2.24
		(0.584)	(1.710)
Dep. Var. Mean	1.34	1.34	1.34
Dep. Var. Std. Dev.	3.02	3.02	3.02
Active MB	Yes	Yes	Yes
Controls	Yes	Yes	Yes
Region FE	Yes	Yes	Yes
Observations	384	384	384
Regions	37	37	37
R-squared	0.185	0.217	-0.030
F (Kleibergen-Paap)			14.94
F (Effective)			15.32

Notes: Standard errors clustered at the regional level are shown in parentheses. Controls include population, squared population, population density, unemployment rate and GDP per capita for each district as of 2010. Refugees are measured as the logged number of refugees with open application status. Effective F-Statistics by Montiel Olea & Pflueger (2013). *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level.

5.4 Robustness

Effects on Changes in AfD Vote Share. In the methodology section, we presented qualitative evidence, maps on the geographic distribution of inactive and active military buildings and pre-treatment balance checks all of which indicate that our instrument is exogenous with respect to district characteristics. Still, some unobserved characteristics may remain that are related to both our instrument and our outcome variable. As a robustness check, we relax the assumption that our instrument is unrelated to unobserved characteristic in district *levels*. Instead, we assume that our instrument is unrelated to unobserved *trends* in district characteristics and estimate the effect of refugee presence on the *change* in AfD vote share between 2013 and 2017. We present the result in Table A5 in the Appendix. Column (6) indicates that an increase in the number of refugees decreases the change in AfD vote share by approximately 3.0 percentage points. This estimate provides a conservative lower bound for the effect of refugees on voting.

Excluding East Germany. As laid out in the institutional background section, attitudes against immigrants are generally more negative in former East Germany. In particular, the average AfD vote share in 2017 is 21.7 in the East and 11.2 in the West (see also Figure A1d). To ensure our analysis against differences across regions, we include region fixed effects. Moreover, we repeat our analysis excluding the subset of all districts in the territory of former East Germany as a robustness check. Table A6 in the Appendix shows that our coefficients remain the same in terms of sign and statistical significance and comparable in magnitude. The effect on voting is -3.66 (vs. -3.60 in the full sample), the effect on violence is -7.52 (vs. -9.28) and the effect on fake news is 1.42 (vs. 2.24).

State vs. Region Fixed Effects. In our main specification we use region fixed effects and errors clustered at the region level instead of state fixed effects and errors clustered at the state level. We do so because Germany consists of only 16 states (vs. 38 regions) and we thus avoid artificially low standard errors that come with small numbers of clusters. However, German regions are only statistical divisions and not administrative units. Political decisions are taken at the district and at the state level. As a consequence, it would be more natural to cluster standard errors at the state level. In Table A7 in the Appendix we show that our main findings also hold for state fixed effects and errors clustered at the state level. The effect on voting in 2013 is significant but point estimates remain comparable for region fixed effects (-0.61) and state fixed effects estimations (-0.78). We conclude that statistical significance may result from from artificially low standard errors due the

small number of state clusters. Our three main results hold, too. The effect on voting is -3.7 (vs. -3.6 with region FE and cluster), the effect on violence is -11.82 (vs. -9.28), the effect on fake news is 1.77 (vs. 2.24). Overall, our conclusions remain unchanged.

Weak IV Robust Confidence Intervals. In Table 1 we report a Kleibergen-Paap F-statistic of 14.94 and an Effective F-statistic of 15.32. Based on the critical values provided by Montiel Olea & Pflueger (2013) and reproduced in Table A3 in the Appendix, we can exclude any bias larger than 20 percent of the OLS bias with 95 percent confidence. To further ensure the results against weak identification, we provide robust confidence intervals. Unlike the Wald statistic, the distribution of the Anderson-Rubin (AR) statistic does not depend on the concentration parameter μ^2 and may thus be used to calculate confidence intervals that are robust to weak estimation of the first-stage (Anderson & Rubin, 1949; Finlay & Magnusson, 2009; Mikusheva, 2013). Table A8 in the Appendix reports AR robust confidence intervals for our main 2SLS results. AR confidence intervals are marginally larger but our two key findings on AfD voting and violence remain significant at the 5 percent level.

6 Conclusion

In this paper, we show that increased refugee presence can lead to less negative attitudes towards refugees. We estimate that a one-standard-deviation increase in the number of refugees hosted in a district leads to a decrease in the vote share of the far-right party AfD by 3.4 percentage points. The same increase in refugee presence decreases violent attacks against refugees by 0.54 standard deviations. We find no clear effect on the spread of fake news.

We interpret these findings as providing evidence in favour of Allport's (1954) contact hypothesis: that increased contact with refugee reduces fear and prejudice among the native population and makes them less hostile. This is made manifest here in terms of reduced far-right voting, increased votes for pro-refugee parties and a decrease in violent attacks on refugees.

These results support the findings of Steinmayr (2017), who also finds evidence in favour of the contact hypothesis in the wake of the recent European migrant crisis. However, we go beyond Steinmayr in looking at the *number* of refugees present and in focusing on a country at the epicentre of the crisis. Our findings are perhaps surprising when considered as part of the broader literature, which has tended to find a positive link between immigration and far-right voting. These results therefore

could be taken to underline the distinct nature of refugees as opposed to immigrants in general.

Although the finding that the contact hypothesis prevails paints an optimistic picture of refugee integration, it is important to bear in mind that our results only hold for refugees whose asylum applications are still open, meaning that they cannot yet enter the workforce. Future research should focus on the longer term impact of the refugee crisis on civil society in Europe, and evaluate the extent to which the effects that we find here are attenuated as refugees begin to enter the labour force.

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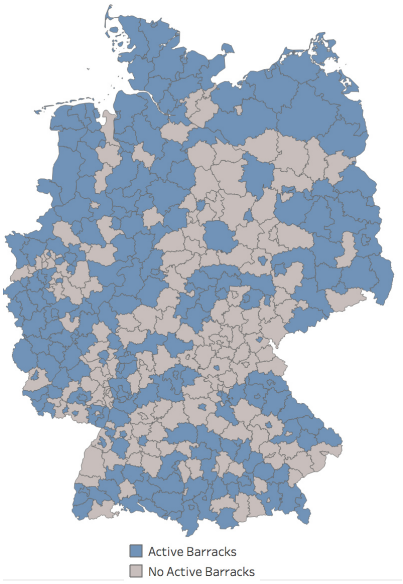
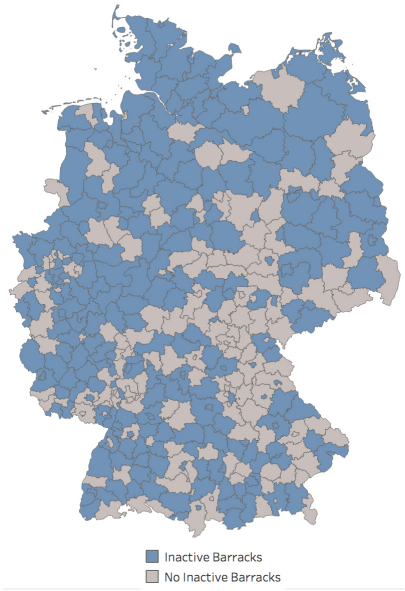
Appendix

Figure A1: *Location of Military Buildings and Prevalence of AfD Voting*

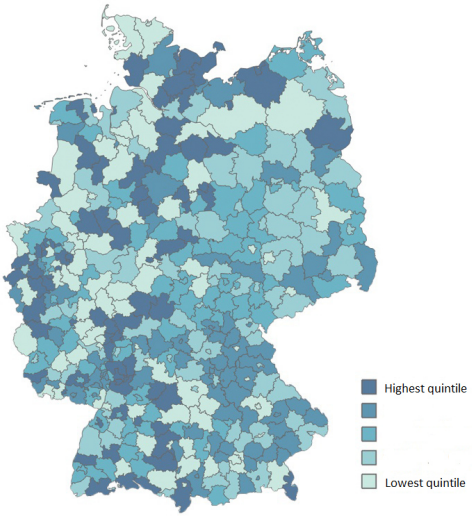
(a) Inactive Military Buildings



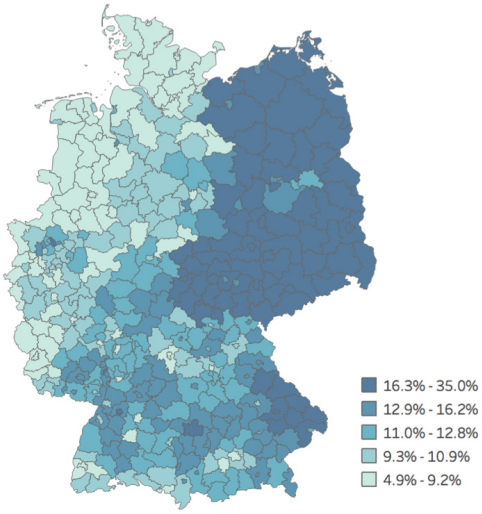
(b) Active Military Buildings



(c) Residual Variation



(d) AfD vote share 2017



Notes: Figure A1(a) and A1(b) depict the location of inactive and active military buildings, respectively. For inactive military buildings only buildings decommissioned before 2015 are included. Figure A1(c) depicts the quintiles in the residual variation in the number of inactive military buildings that remains after controlling for the number of active military buildings and region fixed effects. The variation shows no particular patterns, at least so for West Germany, and provides further indication that our instrument is exogenous. Figure A1(d) depicts quintiles in the AfD vote share in the 2017 federal election.

Table A1: *Summary Statistics*

	Obs	Mean	Std. Dev.	Min	Max
Outcomes					
Vote share AfD, 2013	401	4.64	1.06	2.22	8.54
Vote share AfD, 2017	401	13.24	5.24	4.92	35.02
Violence (per thousand refugees)	391[1]	11.92	16.4	0	118.1
Fake News (per thousand refugees)	391[1]	1.34	3.03	0	33.3
Refugees					
Refugees, total	391[1]	4,001	6,149	155	82,490
Refugees, open application	391[1]	1,447	2,008	65	27,635
Refugees, open app., logged	391[1]	6.82	0.95	4.17	10.23
Instrument					
Inactive military buildings	401	1.24	1.54	0	11
Active military buildings	401	4	6.67	0	47
Controls, 2010					
Population	394[2]	203,325	233,249	34,109	3,442,675
Population density	394[2]	528.9	678.9	38.9	4,282
Foreign share of population*	386[12]	6.6	4.6	0.7	30.2
GDP per capita	401	29,969	12,950	13,122	109,521
Unemployment rate	394[2]	7.16	3.14	1.9	16.6
Crime rate†	400	64.57	27.85	23	169.72
Federal Elections, 2013					
Turnout	401	70.7	4.27	57.75	79.07
Vote share Union‡	401	42.71	7.41	25.68	63.05
Vote share SPD	401	24.43	7.31	10.76	48.03
Vote share FDP	401	4.52	1.42	1.88	10.37
Vote share Greens	401	7.53	3.05	2.5	21.93
Vote share Left	401	8.34	7.05	2.39	29.86
Federal Elections, 2017					
Turnout	401	75.84	3.71	64.08	84.39
Vote share Union‡	401	33.91	6.02	21.41	53.43
Vote share SPD	401	19.92	6.27	7.7	37.86
Vote share FDP	401	10.01	2.46	5.03	17.48
Vote share Greens	401	8.01	3.66	2.04	23.12
Vote share Left	401	8.73	4.47	3.56	23.04
ΔAfD, 2013-17	401	8.6	4.66	2.01	27.27

Notes: All shares are measured in percent. Foreign share of population (*) is measured in 2011 due to data availability. Crime rate (†) is calculated as crimes per 100,000 inhabitants and measured in 2014 due to data availability. Union (‡) is the political alliance of CDU and CSU (competing only in the state of Bavaria).

[1] Refugee data for districts not available for the state of Saarland and districts of Kassel (Stadt), Kassel (Landkreis), Cottbus and Spree-Neiße.

[2] Population data not available within 2017 district borders due to 2011 territorial reform in state of Mecklenburg-Vorpommern.

Table A2: *Exogeneity and Exclusion Restriction*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Panel A: Exogeneity	Pop10	Unemp10	GDPpc10	Density10	Crime14	Foreign11	Turnout13	Union13	SPD13	AfD13
Inactive MB (1970-2014)	22,515*	-0.0676	835.6	42.09	1.016	0.00125	0.00107	-0.253	0.00435	-0.0303
	(13,077)	(0.0827)	(586.3)	(53.70)	(0.839)	(0.00209)	(0.00113)	(0.285)	(0.171)	(0.0182)
Active MB	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	394	394	401	394	400	386	401	401	401	401
Panel B: Exclusion	Pop10	Unemp10	GDPpc10	Density10	Crime14	Foreign11	Turnout13	Union13	SPD13	AfD13
Inactive MB (1970-2000)	38,341**	0.113	929.8	72.65	1.530	0.00304	0.000862	-0.524	0.145	-0.0369
	(18,908)	(0.117)	(1,009)	(74.92)	(1.473)	(0.00254)	(0.00195)	(0.434)	(0.247)	(0.0352)
Active MB	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	394	394	401	394	400	386	401	401	401	401

Notes: Standard errors clustered at the regional level are shown in parentheses. All specifications control for the number of active military buildings and region fixed effects. All outcome variables are measured before the start of the refugee crisis. Due to data availability, the foreign share of population and crime rate (crimes per 100,000 inhabitants) are measured in 2011 and 2014 respectively. Voting outcomes as of the federal election in 2013. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level.

Table A3: *Effective F-Statistic Critical Values*

(1) % of Worst Case Bias	(2) TSLS	(3) LIML
$\tau = 5\%$	37.418	37.418
$\tau = 10\%$	23.109	23.109
$\tau = 20\%$	15.062	15.062
$\tau = 30\%$	12.039	12.039

Note: The Table reproduces critical values of the Effective F-Statistic in the case of one effective degree of freedom and a significance level of 5% (see Montiel Olea and Pflueger 2013, Table 1). The critical values are relevant for all specifications with one instrument and one endogenous regressor.

Table A4: *Effects on Voting for Other Parties*

Variables	(1) 2SLS Turnout17	(2) 2SLS Union17	(3) 2SLS SPD17	(4) 2SLS FDP17	(5) 2SLS Left17	(6) 2SLS Green17
Log Refugees	-0.17	-1.03	-0.78	0.31	1.75**	4.10***
	(1.2)	(2.56)	(1.72)	(0.97)	(0.83)	(1.45)
Active MB	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	384	384	384	384	384	384
Regions	37	37	37	37	37	37
R-squared	0.742	0.762	0.858	0.752	0.905	0.604
F (Kleibergen-Paap)	14.94	14.94	14.94	14.94	14.94	14.94
F (Effective)	15.32	15.32	15.32	15.32	15.32	15.32

Notes: Standard errors clustered at the regional level are shown in parentheses. Controls include population, squared population, population density, unemployment rate and GDP per capita for each district as of 2010. Refugees are measured as the logged number of refugees with open asylum application status. All outcome variables measure turnout and vote shares from the federal election in 2017. Effective F-Statistics by Montiel Olea & Pflueger (2013). *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level.

Table A5: *Robustness with Changes in Far-Right Vote Share*

	(1) RF	(2) RF	(3) OLS	(4) OLS	(5) 2SLS	(6) 2SLS
Variables	AfD17	ΔAfD	AfD17	ΔAfD	AfD17	ΔAfD
Inactive MB	-0.185**	-0.154**				
	(0.0684)	(0.0607)				
Log Refugees			-0.0211	-0.0881	-3.600**	-2.992**
			(0.325)	(0.317)	(1.567)	(1.355)
Active MB	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	394	394	384	384	384	384
Regions	38	38	37	37	37	37
R-squared	0.859	0.852	0.861	0.853	0.776	0.782
F (Kleibergen-Paap)					14.94	14.94
F (Effective)					15.32	15.32

Notes: Standard errors clustered at the regional level are shown in parentheses. Controls include population, squared population, population density, unemployment rate and GDP per capita for each district as of 2010. Refugees are measured as the logged number of refugees with open application status. ΔAfD is measured as the difference between the AfD vote share in 2017 and 2013. Effective F-Statistics by Montiel Olea & Pflueger (2013). *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level.

Table A6: *Robustness Excluding the East*

	(1) 2SLS	(2) 2SLS	(3) 2SLS	(4) 2SLS	(5) 2SLS	(6) 2SLS
Sample	Full	West	Full	West	Full	West
Variables	AfD17	AfD17	Violence	Violence	Fake News	Fake News
Log Refugees	-3.60**	-3.66**	-9.28**	-7.52*	2.24	1.42
	(1.57)	(1.55)	(4.29)	(4.04)	(1.71)	(1.63)
Active MB	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	384	315	384	315	384	315
R-squared	0.776	0.323	0.516	0.400	-0.030	0.054
Regions	37	29	37	29	37	29
F (Kleibergen-Paap)	14.94	15.69	14.94	15.69	14.94	15.69
F (Effective)	15.32	16.19	15.32	16.19	15.32	16.19

Notes: Standard errors clustered at the regional level are shown in parentheses. Controls include population, squared population, population density, unemployment rate and GDP per capita for each district as of 2010. Refugees are measured as the logged number of refugees with open application status. All outcome variables are measured as in our main Tables 2, 3, and 4. The full sample includes all districs. The restricted sample includes only districts in West Germany and excludes all districts in former East Germany. Effective F-Statistics by Montiel Olea & Pflueger (2013). *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level.

Table A7: *Robustness with State Fixed Effects*

Variables	(1) 2SLS AfD13	(2) 2SLS AfD17	(3) 2SLS Violence	(4) 2SLS Fake News
Log Refugees	-0.783**	-3.704***	-11.82***	1.771
	(0.347)	(1.433)	(4.198)	(1.344)
Active MB	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes
Observations	384	384	384	384
States	15	15	15	15
R-squared	0.369	0.678	0.442	-0.096
F (Kleibergen-Paap)	13.87	13.87	13.87	13.87
F (Effective)	14.82	14.82	14.82	14.82

Notes: Standard errors clustered at the state level are shown in parentheses. Controls include population, squared population, population density, unemployment rate and GDP per capita for each district as of 2010. Refugees are measured as the logged number of refugees with open application status. Effective F-Statistics by Montiel Olea & Pflueger (2013). *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level.

Table A8: *Robustness with Weak IV Confidence Intervals (AR)*

Variables	(1) 2SLS AfD13	(2) 2SLS AfD17	(3) 2SLS Violence	(4) 2SLS Fake News
Log Refugees	-0.61	-3.60**	-9.28**	2.24
Wald 95% CI (normal)	[-1.38, 0.16]	[-6.67,-0.53]	[-17.68,-0.88]	[-1.11, 5.60]
AR 95% CI (robust)	[-1.71, 0.18]	[-8.38, -0.68]	[-20.99, -0.28]	[-0.94, 7.46]
Active MB	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes
Observations	384	384	384	384
Regions	37	37	37	37
R-squared	0.600	0.776	0.516	-0.030
F (Kleibergen-Paap)	14.94	14.94	14.94	14.94
F (Effective)	15.32	15.32	15.32	15.32

Notes: The Table reproduces 2SLS results from Tables 2, 3, and 4. Wald 95% confidence intervals reproduce standard IV confidence intervals commonly reported in *ivreg2*. Weak IV robust Anderson-Rubin (AR) 95% confidence intervals are calculated based on Finlay and Magnusson (2009).