


RESEARCH NOTE

Exposure to anti-refugee hate crimes and support for refugees in Germany

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Abstract

In recent years, anti-refugee hate crimes have soared across Europe. We know this violence has spread fear among refugees, but we know less about its effects on the non-refugee population. This is an oversight, as research suggests political violence often has effects on the broader population. Those effects can range from increased solidarity with the targets of the violence to reduced pro-social behavior and less support for the targets of the violence. In this research note, we examine the effects of exposure to anti-refugee hate crimes in Germany. Our results suggest no direct effect of exposure to anti-refugee hate crimes on support for refugees. These results have several implications for our understanding of political divides over refugees in Europe.

Keywords: backlash; Germany; hate crime; refugees; solidarity

1. Introduction

On October 3, 2015, in the German town of Altena, a firefighter set fire to a building housing several Syrian refugees. The firefighter later admitted that he wanted to scare away refugees from his town, because he assumed they were dangerous criminals (Welle, 2016). Unfortunately, that attack was not an isolated incident. Anti-refugee hate crimes increased across Germany (and Western Europe more broadly) during the 2010s (Dancygier, 2023), spreading fear and alienation among refugees (Graeber and Schikora, 2021; Jaschke *et al.*, 2021).

However, political violence can affect people even if they are not in the targeted group. Political violence can increase public hostility against the targets, when they are viewed as deserving their fate. Political violence can also cause public opinion to sway in favor of the targets, when the violence is seen as unjustified. How anti-refugee violence affects public opinion is especially relevant in Europe, where there are active debates about whether societies should be open or restrictive to asylum seekers (Bansak *et al.*, 2023). Unfortunately, existing research does not provide much evidence on how exposure to anti-refugee hate crimes shapes public support for refugees.

In this research note, we analyze how exposure to anti-refugee hate crimes in the local community (municipality) affects support for refugees, among non-refugee residents in Germany. This local focus is important because anti-refugee hate crimes rarely become national news and resonate deeply in the local community (Riaz *et al.*, [Forthcoming](#)).

Our results suggest that living in a municipality where anti-refugee hate crimes occur has no direct effect on general attitudes about refugees or on willingness to help refugees. We do find that living in a municipality where anti-refugee hate crimes occur can increase anxieties about crime, although it is unclear how those anxieties relate to support for refugees.

Our results have several implications. First, increased violence against refugees is unlikely to be counterbalanced by increased mobilization to support refugees. At a minimum, this is troubling

news for refugees, and suggests the balance of power might swing toward the anti-refugee side. However, hate crimes are not the only anti-refugee actions that can mobilize a backlash. Other research suggests electoral success among xenophobic far right parties increases social welfare mobilization—by the opponents of the Far Right—to aid migrants (Pulejo, 2023). Our findings open new questions about the precise conditions that generate support for attacked target groups.

Second, our results appear to contradict recent research which suggests anti-refugee hate crimes mobilize people who are already hostile toward immigrants to become even more anti-immigrant (Igarashi, 2021) and more supportive of anti-immigrant political parties (Eger and Olzak, 2023; Krause and Matsunaga, 2023). This “contradiction” may be because previous research analyzes larger aggregations (states and the nation) where specific hate crimes become big political stories. The mobilizing effects they observe may be related to those broader dynamics. In contrast, our results suggest local exposure to hate crimes does not have those effects. Our research thereby contributes to a broader understanding of anti-refugee hate crimes, by suggesting their political power in mainstream society may come more from the broader media and political conversation that they spark, as opposed to the immediate effect of the violent act.

Finally, our results suggest that attitudes about refugees may be deeply held and invulnerable to short-term swings. In that sense, our results are consistent with a growing body of research which suggests that attitudes about migrants are part of broader worldviews that are formed early in life and stable throughout the life course (Kustov *et al.*, 2021; Lancaster, 2022).

2. Hypotheses

Existing research identifies two predictions for how exposure to political violence might affect support for the victims. The first is that the public may become more supportive of the victims. This is more likely when the public views the political violence as unjustified (Liebe and Schwitzer, 2021). Under those circumstances, people react with moral outrage that blames the perpetrator (O'Reilly *et al.*, 2016; Hershcovis and Bhatnagar, 2017). Moreover, moral outrage can spark an increase in prosocial responses toward the victim, as a way of counteracting the injustice (Priesemuth and Schminke, 2019). Given the vulnerability of refugees in Germany and the association of hate crimes with extremist far-right groups, this logic predicts that anti-refugee hate crimes boost support for refugees in Germany.

H₁: Exposure to anti-refugee hate crimes will increase support for refugees in Germany.

The second scenario is that the public becomes less supportive of the victims. This may operate through multiple channels. One possibility is that perpetrators of the violence convince the broader public that their cause is justified (Enos *et al.*, 2019). However, we do not expect this dynamic with anti-refugee hate crimes in Germany. Although there is some evidence that anti-refugee hate crime supporters are found across a wide range of demographic groups in Germany (Dancygier, 2023), the number of perpetrators is fairly small and associated with extremism (Riaz *et al.*, Forthcoming). As a result, anti-refugee hate crimes seem unlikely to convince the masses that refugees are the problem.

Instead, another channel for reduced support operates through increased anxiety. Research suggests exposure to violence leads to increased anxiety and other negative psychological outcomes. This is true whether people are directly exposed through an in-person event, or even through second-hand news of something that occurred in their community (Hopwood and Schutte, 2017; Thompson *et al.*, 2019). Increased fear and anxiety makes people believe their environment is less safe, which often leads people to become more reclusive and more anti-social, even toward the victims of the crimes (Sampson *et al.*, 1997). In this case, that would mean less support for refugees in Germany.

H₂: Exposure to anti-refugee hate crimes will decrease support for refugees in Germany.

3. Research design

Identifying the effect of hate crime exposure on attitudes is difficult for three main reasons. First, hate crimes are not distributed randomly. Local demography, crime, media, and political factors all shape the risk of anti-refugee violence, as well as support for refugees (Jäckle and König, 2017; Marbach and Ropers, 2018; Dancygier *et al.*, 2022). As a result, any difference in support for refugees between places with and without anti-refugee hate crimes could be explained by several factors other than exposure.

To deal with this challenge, we use a regression discontinuity design. We link individual-level survey data to geo-referenced data on the municipalities where hate crimes occur. Our design is structured around the hate crime that occurred closest in time to a respondent's date of interview, with some interviewed before and others after. We model native attitudes toward refugees as a function of days elapsed since or until the occurrence of a local hate crime, under the assumption that the date of an interview relative to the occurrence of a hate crime is as good as random. Our estimand is therefore the local average treatment effect (LATE) of a hate crime in a respondent's municipality.¹ We borrow this design from Graeber and Schikora (2021), who estimated the effect of anti-refugee hate crimes on refugee integration outcomes.

The second challenge is that anti-refugee hate crimes cluster in time (Jäckle and König, 2017; Frey, 2020; Liebe and Schwitter, 2021) and effects may vary with levels of exposure. To address this concern, we follow Graeber and Schikora (2021) and exclude respondents living in municipalities that experienced a hate crime in the thirty days prior to the hate crime that designates treatment status.

Finally, we must determine what geographic context is most appropriate. Earlier studies tested the effect of hate crime exposure at the level of the German federal states (*Bundesländer*) (Igarashi, 2021; Eger and Olzak, 2023). Instead, we measure exposure at the municipal level, which is the finest-grained level that our data will allow. The advantage of a finer-grained analysis is that people are more likely to be aware of hate crimes that occur in their local community as opposed to elsewhere in the country. We acknowledge that some forms of political violence become national news stories, with the potential to affect people well beyond the local community (Frey, 2020; Helbling and Meierrieks, 2022). However, anti-refugee hate crimes are not systematically covered nationally, so we cannot assume widespread knowledge.

4. Data

We use three main data sources. First, we use a geo-referenced event database that includes anti-refugee violence and social unrest in Germany (Benček and Strasheim, 2016). The database (henceforth, ARVIG) was updated last in 2018, and includes almost 7000 events between 2014 and 2017.²

ARVIG contains several event types, including xenophobic demonstrations, arson, assaults, attacks against refugee housing, as well as a small number of other incident types. Given how different these event types are, we analyze effects of arson, assaults, and attacks on refugee housing separately. As others have done before us (Jäckle and König, 2017; Riaz *et al.*, *Forthcoming*), we exclude xenophobic demonstrations from consideration. Demonstrations do not fit neatly into the category of hate crime, as they can be interpreted as legitimate forms of political participation in a democracy. Demonstrations may also be announced before they occur, which means they are incompatible with a regression discontinuity design focused on the date of the event.

Figure 1 presents a descriptive summary of anti-refugee hate crimes. The time series plots show sharp increases in assaults and attacks on refugee housing in 2016. Moreover, the maps depict significant variation across German municipalities. Although more than 80 percent of

¹ A limitation of estimating the LATE is that we only derive insights into the effects of treatment among respondents living in municipalities that experience a hate crime during our study period.

² See: <http://davben.github.io/arvig/articles/arvig.html>

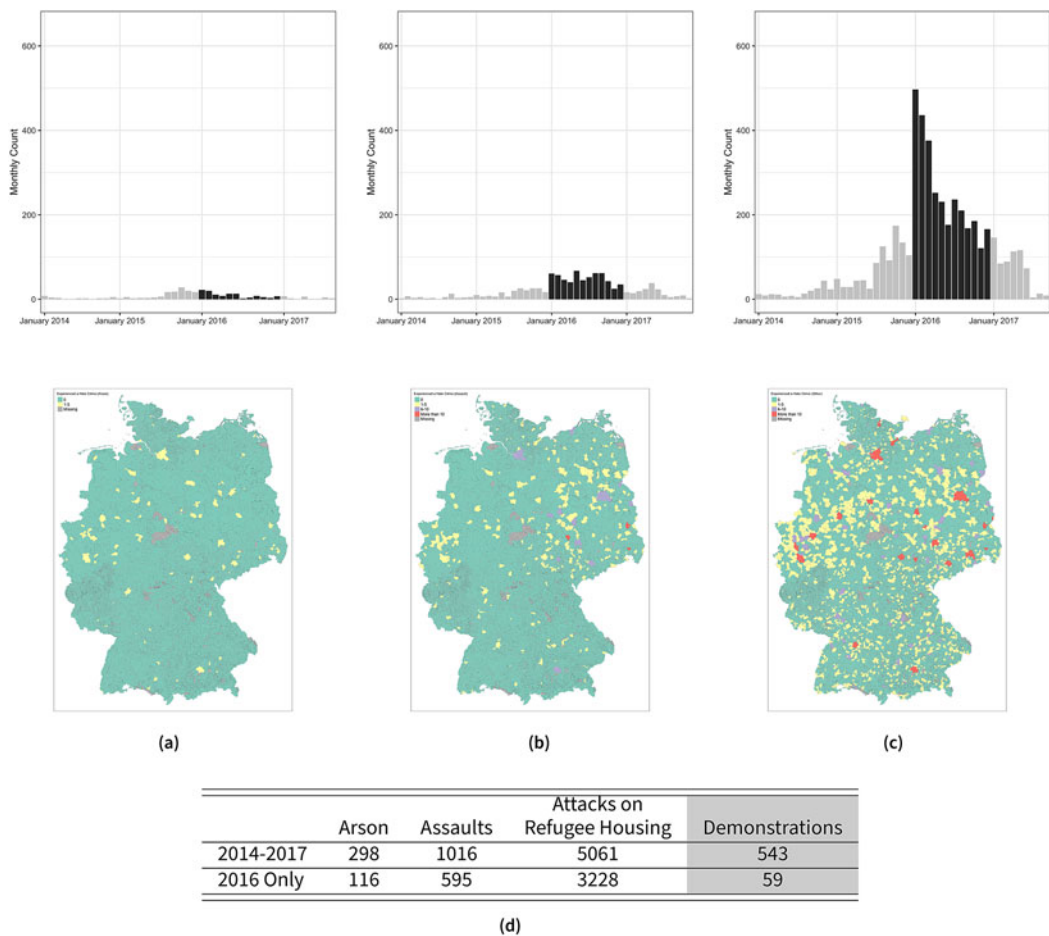


Figure 1. Number of anti-refugee hate crimes in Germany (2014–2017): (a) arson incidents, (b) assaults, (c) attacks on refugee housing, (d) anti-refugee hate crimes: incident types.

Data Source: ARVIG (Benček and Strasheim, 2016). Demonstrations excluded from all subsequent analyses. Survey data are limited to the 2016 wave of the SOEP (details below), however certain 2016 respondents are linked to local hate crimes that occurred before/after that calendar year.

municipalities did not experience any incidents between 2014 and 2017, other municipalities experienced multiple incidents.

Our second data source is the German Federal Statistical Office. Here we get contextual data to account for the various ways in which municipalities vary, other than hate crime incidents.

Finally, we use individual-level data from the German Socio-Economic Panel (SOEP). The SOEP is an annual panel of roughly 15,000 households, designed to be representative of the German resident population aged 16 and older. Our analysis is limited to the 2016 wave, the only in year in which items about support for refugees overlap with ARVIG.³ Given our interest in the effects of anti-refugee hate crimes on individuals outside the target group, we exclude respondents sampled as part of the SOEP Survey of Refugees. Our final sample contains 16,736

³Our analysis captures the effects of local exposure under conditions of comparatively high incidence of anti-refugee hate crimes at the national level.

respondents who live in a municipality that experienced a hate crime event.⁴ Respondents living in municipalities that did not experience a hate crime are *de facto* excluded because they are not a viable counterfactual for the treated group.

We analyze two outcome measures: general attitudes about refugees and plans to help refugees. General attitudes about refugees is an additive index of five survey items.⁵ Plans to help refugees is an additive index we construct from three survey items.⁶ Full details on the index items are in the Appendix. Histograms for the indices are in Figure 2. Both indices range from 0 to 1, with larger values denoting higher levels of support for refugees.

We also use the SOEP to measure individual-level variables for testing key assumptions and exploring effect heterogeneity. These additional measures are described in Appendix 1.

5. Validating the research design

Regression discontinuity designs require several identifying assumptions. We review these in detail in Appendix 2, and for the most part our design satisfies the necessary assumptions. There is minor evidence of imbalance at the threshold for the attacks on refugee housing treatment.

6. Analysis

6.1. Estimation strategy

Our main analysis uses a regression discontinuity (RD) design. We estimate a non-parametric, local linear regression that uses only observations within a mean squared error (MSE) optimal bandwidth around the cutoff and is estimated using a triangular kernel (Skovron and Titiunik, *n.d.*; Imbens and Kalyanaraman, 2012; Calonico *et al.*, 2017; Cattaneo *et al.*, 2019; Gelman and Imbens, 2019). Given *ex ante* uncertainty about temporal dynamics in hate crime effects on native attitudes, we allow bandwidths to vary in size on either side of the cutoff. Our analysis excludes individuals interviewed on the day a hate crime occurred as well individuals for whom the hate crime designating treatment status occurred within 30 days of an earlier hate crime in the same municipality. Standard errors are clustered at the state level.

Figure A4 flexibly depicts the relationship between our outcomes and the running variables, to visualize the functional form of the regression and the variability of our data (Cattaneo *et al.*, 2019). These plots are initial evidence that support for refugees is static in the aftermath of hate crime exposure.

6.2. Main results

Our main results are in columns 1 and 2 of Table 1.⁷ For the most part, these results suggest exposure to anti-refugee hate crimes has no effect on support for refugees. For some estimates the direction is negative, for other estimates the direction is positive, but for most estimates the results are not statistically significant at the 90 percent level.

The one exception is the effect of living in a municipality with a recent assault on refugees, which is associated with being less likely to help refugees (statistically significant at either the 95 or 90 percent level, depending on specification). This is consistent with H_2 , but it is not robust to a series of additional tests, which we present in full detail in Appendix 3.3. Most notably, given

⁴This is 67.89 percent of the 2016 sample, which may seem high given the fact that only ~20 percent of municipalities experienced a hate crime during the study period. However, hate crimes occurred with greater frequency in more populous municipalities (see Appendix Table 1).

⁵The Cronbach's alpha for the five items is 0.909, highlighting a high level of internal consistency.

⁶The Cronbach's alpha for these three items is 0.522, which suggests an acceptable level of internal consistency.

⁷Results are also visualized using RD plots in Figure A5.

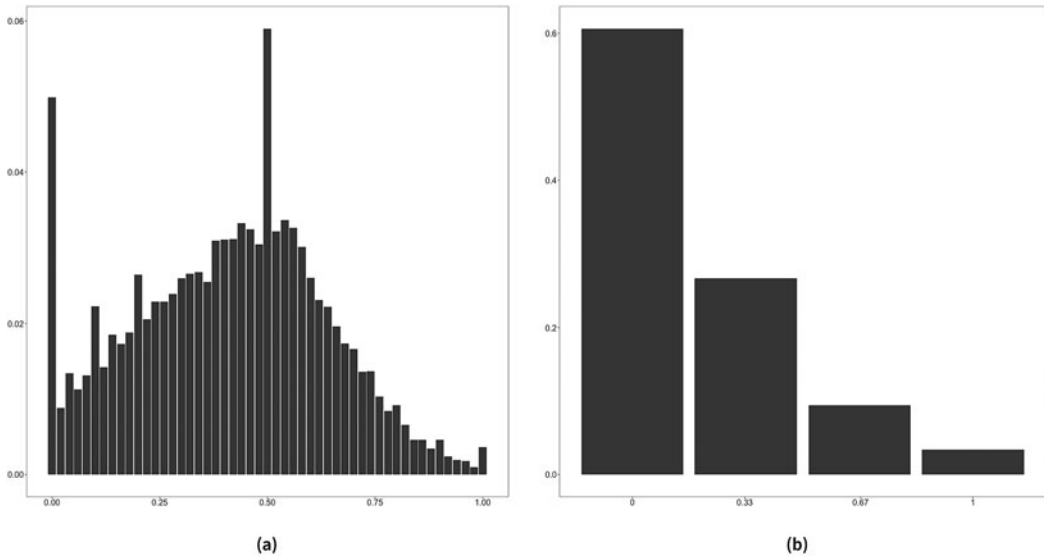


Figure 2. Distribution of outcome variables: (a) attitudes toward refugees and (b) plans to help refugees.
Data source: SOEP v37. Values closer to one reflect (a) more positive assessments of how refugees will affect Germany, and (b) more plans to help refugees.

evidence of minor imbalances in certain individual-level characteristics at the threshold, we estimate models that control for individual-level characteristics. The results from these models are in Table A6, which indicate that the negative and significant effect of exposure to assaults on plans to help refugees attenuates to zero and is no longer statistically significant. We take this attenuation to mean that the effects in Table 1 on plans to help refugees are biased downward. As a result, we do not have reliable evidence to support H_2 .

We also test for heterogeneous treatment effects across different individual- and municipal-level characteristics. We find no evidence that exposure to hate crimes either increases or decreases support for refugees among specific subsets of our sample. Full results are reported in Appendix 3.4.

6.3. Awareness of events, worries about crime, and media coverage

One interpretation of our results is that Germans are not motivated to change their support for refugees when they are exposed to local hate crimes. Another possibility is that hate crimes do not affect Germans through local channels, either because people are unaware of hate crimes in their community, or because people are aware of hate crimes all across the country. We do not have data that directly measures knowledge of specific events. Instead, we indirectly test whether people are likely to be aware of local hate crimes, in two ways.

First, we test for exposure to local hate crimes by exploring anxieties about crime. We construct an additive index of anxiety about crime.⁸ Next, we estimate the effect of local exposure to anti-refugee hate crime on anxiety about crime, and present results in column 3 of Table 1. Results are positive for all three types of hate crimes, and statistically significant (at $p < 0.05$ or $p < 0.10$) for assaults, which causes a sizeable 0.05 point (0.22 standard deviation) increase in anxieties about crime. Various robustness tests in Appendix 3.3 show that this finding is consistent. These findings suggest Germans are sensitive to hate crimes in their local municipality.

⁸We combine items that ask whether respondents are worried about crime in Germany, social cohesion in society, and hostility toward foreigners or minorities in Germany.

Table 1. LATE of municipal hate crime exposure

	Attitudes toward refugees	Plans to help refugees	Anxiety about crime
<i>Arson</i>			
Conventional	−0.027 (0.044)	−0.010 (0.048)	0.031 (0.030)
Bias-corrected	−0.031 (0.044)	−0.004 (0.048)	0.038 (0.030)
Robust bias-corrected	−0.031 (0.056)	−0.004 (0.062)	0.038 (0.034)
<i>N</i>	5389	5387	5461
Effective <i>N</i>	2597	2702	2708
BW L	72.85	65.78	87.09
BW R	158.00	184.00	137.20
<i>Assault</i>			
Conventional	−0.026 (0.026)	−0.047* (0.027)	0.054** (0.026)
Bias-corrected	−0.029 (0.026)	−0.053** (0.027)	0.054** (0.026)
Robust bias-corrected	−0.029 (0.029)	−0.053* (0.031)	0.054* (0.028)
<i>N</i>	6964	6987	7060
Effective <i>N</i>	4355	3816	4762
BW L	74.85	47.22	83.01
BW R	99.95	84.12	146.60
<i>Attacks on refugee housing</i>			
Conventional	0.001 (0.013)	−0.003 (0.016)	0.026 (0.021)
Bias-corrected	0.003 (0.013)	−0.004 (0.016)	0.030 (0.021)
Robust bias-corrected	0.003 (0.014)	−0.004 (0.017)	0.030 (0.022)
<i>N</i>	10,561	10,570	10,738
Effective <i>N</i>	6645	6517	7269
BW L	50.37	58.29	74.12
BW R	111.5	81.02	100.40

***p* < 0.05, **p* < 0.1.

Next, we explore German-language newspaper coverage of hate crime events using a subset of cases in ARVIG.⁹ We look for two key pieces of evidence. First, we ask whether stories about hate crimes are primarily covered in the local community where they occur. An affirmative finding would suggest that people are likely to be treated by the hate crimes in their local community and not by hate crimes in other communities. Here, our results suggest that hate crimes are indeed primarily covered in local and regional newspapers as opposed to national newspapers. Events are between 1.44× (arson) and 2.21× (attacks on housing) more likely to be covered in a local/regional newspaper than in a national newspaper. Moreover, these local/regional newspapers are predominantly local or regional to the municipality where the hate crime occurred. To the extent people receive information about hate crimes from newspapers, this suggests that people are more likely to be aware of local hate crimes, limiting concerns about informational spillover.

We also explore the rate of newspaper coverage for anti-refugee hate crimes. The results vary by event type: arson events (60.4 percent) receive significantly higher coverage than assaults (21.6 percent) and attacks on refugee housing (14.4 percent). This suggests uneven awareness of hate crimes, although these figures are likely lower-bounds for awareness, as our repository does not contain all regional and local German newspapers. Moreover, an individual may learn of a hate crime through various means besides newspaper coverage. Nonetheless, the fact that local exposure increases anxieties about crime, and the fact that the crimes are primarily covered in local papers, suggests that Germans are likely to be aware of local hate crimes.

6.4. Indirect effects?

The logic of H_2 is that exposure to political violence increases anxiety, which reduces support for the targets because people fear for their personal safety if they get involved. Therefore, it is possible that although we do not observe direct effects of hate crimes on refugee support, there are

⁹See Appendix 3.3 for detailed description of this analysis.

indirect effects that operate through anxieties about crime. The ideal test of this pathway would be a mediation analysis, but our data do not support that approach. Nonetheless, we can get leverage on potential indirect effects.

If we disaggregate the index for plans to help refugees, Figure A15 suggests that exposure to anti-refugee assaults has no effect on donating money or going to demonstrations but does reduce plans to work with refugees directly. This is consistent with the logic of indirect effects. Effects are limited to the type of refugee help that would most expose respondents to potential violence. In addition, Figure A16, which disaggregates our anxiety about crime index, shows that exposure to assault is positively associated with worries about social order and crime in Germany, but not with worries about hostility toward foreigners. This is again consistent with the logic of indirect effects: worries about social order and crime could make the non-refugee respondents fear for their personal safety.

Next, we conduct an exploratory test of whether increased generalized anxiety about crime reduces support for refugees. Full results, in Table A10, present a mixed picture. Greater anxiety about crime is associated with plans to give *more* help to refugees, as well as with more negative attitudes toward refugees. These results are speculative, so we do not want to over-interpret the dynamics. Yet, at a minimum, they do not provide robust evidence for the notion that hate crimes reduce support for refugees through the channel of increased anxiety. These findings are also consistent with previous research in suggesting that attitudes toward refugees and behavior toward refugees do not necessarily move together (Adida *et al.*, 2018; Lo and Lang, 2023).

7. Discussion

This research note has explored the effect of anti-refugee hate crimes on support for refugees. We find no evidence of a direct effect between local exposure to hate crimes and support for refugees. Instead, we find evidence that local exposure to hate crimes increases anxiety about crime and disorder.

Our findings advance discussions about refugee integration in Europe, because they suggest attitudes about refugees may be strongly held and resistant to change. This is consistent with a growing body of literature on the stability of migration attitudes, and suggests that debates about refugees and migration could become entrenched, with little movement or persuasion from one side to the other. Instead, the way forward may be through compromises among people with moderate preferences (Helbling *et al.*, 2024).

Our findings also open avenues for future research. One possible interpretation of our results is that people are unaware of local hate crimes. This is unlikely, given the effects we observe for local hate crimes on anxiety. Nevertheless, media coverage of hate crime events is far from ubiquitous, with certain events less likely to be covered than others. The media's failure to consistently cover hate crime events may lead the public to underestimate overall rates of violence against refugees. Underestimating the baseline rate of incidence may in turn lead natives to discount the importance of an event in their region, thereby limiting the attitudinal and behavioral effects.

It is also possible that hate crimes affect public opinion through the broader national political narrative. That is a different research question, as it involves complicated interactions between media dynamics and political entrepreneurs. In summary, future research should explore in more detail how people learn about hate crimes, and the various information biases that those pathways may facilitate.

Another research question that merits attention is whether anti-refugee hate crimes shape anxieties about crime via egocentric or sociotropic mechanisms. Are natives worried about their own well-being, or about the well-being of refugees? Our results paint an ambiguous picture, but future research should address this more directly.

Finally, our null result may be specific to Germany. Future research should analyze reactions to hate crimes in other countries or with other target groups. Alternatively, future studies could

consider contexts with lower baseline rates of anti-refugee violence, where any given hate crime might have a more powerful effect.

Supplementary material. The supplementary material for this article can be found at <https://doi.org/10.1017/psrm.2024.43>. To obtain replication material for this article, <https://doi.org/10.7910/DVN/OSOJBA>

Competing interests. None.

References

- Adida CL, Lo A and Platas MR (2018) Perspective taking can promote short-term inclusionary behavior toward Syrian refugees. *Proceedings of the National Academy of Sciences* **115**, 9521–9526.
- Bansak K, Hainmueller J and Hangartner D (2023) Europeans' support for refugees of varying background is stable over time. *Nature* **620**, 849–854.
- Benček D and Strasheim J (2016) Refugees welcome? A dataset on anti-refugee violence in Germany. *Research & Politics* **3**, 1–11.
- Calonico S, Cattaneo MD, Farrell MH and Titiunik R (2017) Rdrobust: software for regression-discontinuity designs. *The Stata Journal* **17**, 372–404.
- Cattaneo MD, Idrobo N and Titiunik R (2019) A Practical Introduction to Regression Discontinuity Designs: Foundations. *Elements in Quantitative and Computational Methods for the Social Sciences*. Cambridge University Press.
- Dancygier R (2023) Hate crime supporters are found across age, gender, and income groups and are susceptible to violent political appeals. *Proceedings of the National Academy of Sciences* **120**, e2212–757120.
- Dancygier R, Egami N, Jamal A and Rischke R (2022) Hate crimes and gender imbalances: fears over mate competition and violence against refugees. *American Journal of Political Science* **66**, 501–515. <https://onlinelibrary.wiley.com/doi/pdf/10.1111/ajps.12595>.
- Eger MA and Olzak S (2023) The polarizing effect of anti-immigrant violence on radical right sympathies in Germany. *International Migration Review* **57**, 746–777.
- Enos R, Kaufman A and Sands M (2019) Can violent protest change local policy support? Evidence from the aftermath of the 1992 Los Angeles riot. *American Political Science Review* **113**, 1012–1028.
- Frey A (2020) “Cologne changed everything”: the effect of threatening events on the frequency and distribution of intergroup conflict in Germany. *European Sociological Review* **36**, 684–699.
- Gelman A and Imbens G (2019) Why high-order polynomials should not be used in regression discontinuity designs. *Journal of Business & Economic Statistics* **37**, 447–456. <https://doi.org/10.1080/07350015.2017.1366909>.
- Graeber D and Schikora F (2021) Hate is too great a burden to bear: hate crimes and the mental health of refugees. Working Paper 1130, SOEP papers on Multidisciplinary Panel Data Research.
- Helbling M and Meierrieks D (2022) Terrorism and migration: an overview. *British Journal of Political Science* **52**, 977–996.
- Helbling M, Maxwell R and Traunmüller R (2024) Numbers, selectivity and generosity. The conditional nature of immigration policy preferences. *Comparative Political Studies* **57**, 187–381.
- Hershcovis MS and Bhatnagar N (2017) When fellow customers behave badly: witness reactions to employee mistreatment by customers. *Journal of Applied Psychology* **102**, 1528–1544.
- Hopwood T and Schutte N (2017) Psychological outcomes in reaction to media exposure to disasters and large-scale violence: a meta-analysis. *Psychology of Violence* **7**, 316–327.
- Igarashi A (2021) Hate begets hate: anti-refugee violence increases anti-refugee attitudes in Germany. *Ethnic and Racial Studies* **44**, 1914–1934.
- Imbens G and Kalyanaraman K (2012) Optimal bandwidth choice for the regression discontinuity estimator. *The Review of Economic Studies* **79**, 933–959.
- Jäckle S and König PD (2017) The dark side of the German “welcome culture”: investigating the causes behind attacks on refugees in 2015. *West European Politics* **40**, 223–251. <https://doi.org/10.1080/01402382.2016.1215614>.
- Jaschke P, Sardoschau S and Tabellini M (2021) Scared Straight? Threat and Assimilation of Refugees in Germany. SSRN Scholarly Paper 4026730, Social Science Research Network, Rochester, NY.
- Krause W and Matsunaga M (2023) Does right-wing violence affect public support for radical right parties? Evidence from Germany. *Comparative Political Studies* **56**, 2269–2305.
- Kustov A, Laaker D and Reller C (2021) The stability of immigration attitudes: evidence and implications. *Journal of Politics* **83**, 1478–1494.
- Lancaster C (2022) Value shift: immigration attitudes and the sociocultural divide. *British Journal of Political Science* **52**, 1–20.
- Liebe U and Schwitter N (2021) Explaining ethnic violence: on the relevance of geographic, social, economic, and political factors in hate crimes on refugees. *European Sociological Review* **37**, 429–448.

- Lo A and Lang O** (2023) Refugees in modern media: German television coverage of refugees and its impacts on inclusion. Working Paper.
- Marbach M and Ropers G** (2018) Not in my backyard: do increases in immigration cause political violence? SSRN Scholarly Paper ID 3310352, Social Science Research Network, Rochester, NY.
- O'Reilly J, Aquino K and Skarlicki D** (2016) The lives of others: third parties' responses to others' injustice. *Journal of Applied Psychology* **101**, 171–189.
- Priesemuth M and Schminke M** (2019) Helping thy neighbor? Prosocial reactions to observed abusive supervision in the workplace. *Journal of Management* **45**, 1225–1251.
- Pulejo M** (2023) Pro-social backlash: the effect of far-right success on voluntary welfare provision. Working Paper.
- Riaz S, Bischof D and Wagner M** (Forthcoming) Out-group threat and xenophobic hate crimes: evidence of local intergroup conflict dynamics between immigrants and natives. *Journal of Politics*.
- Sampson R, Raudenbush S and Earls F** (1997) Neighborhoods and violent crime: a multilevel study of collective efficacy. *Science* **277**, 918–924.
- Skovron C and Titunik R** (n.d.) A practical guide to regression discontinuity designs in political science. p. 47.
- Thompson R, Jones N, Holman EA and Silver RC** (2019) Media exposure to mass violence events can fuel a cycle of distress. *Science Advances* **5**(4), eaav3502.
- Welle D** (2016) German fireman admits to refugee house fire. *Deutsche Welle*, May 31.