Can Television Reduce Xenophobia? The Case of East Germany

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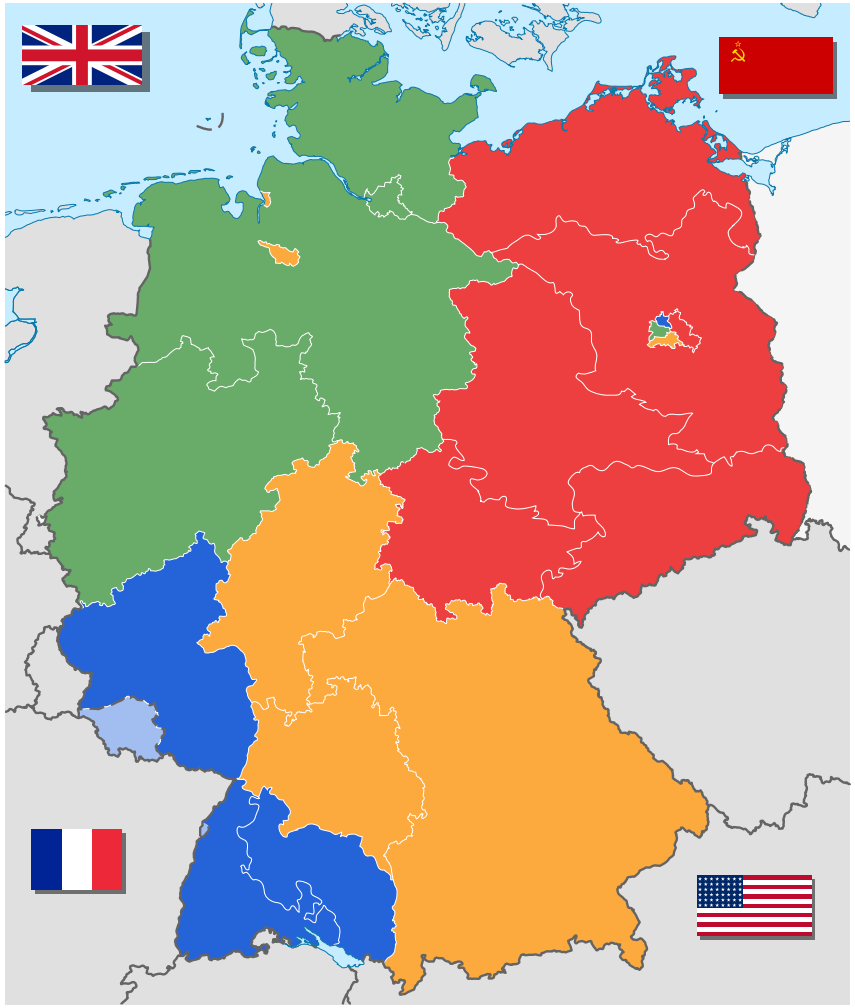
Content

Introduction

Divided Germany

- After World War II Germany was divided into four military occupation zones
- Tight border controls since 1954
- Reunification in 1990



Xenophobia in East and West Germany

West Germany

- Large influx of foreigners to West Germany, particularly in the 1960s and 1970s.
- In 1989, 8% of the West German population were foreigners, not counting immigrants with German citizenship.

East Germany

- The problem was officially non-existent in East Germany. The communist state was considered by definition to be 'anti-fascist'.
- Practically, the rights foreigners were highly restricted.
- Due to these manifold restrictions, the already smaller number of foreigners (around 1% of the GDR population in 1989) was much less integrated and therefore much less visible than in West Germany.

Theoretical considerations

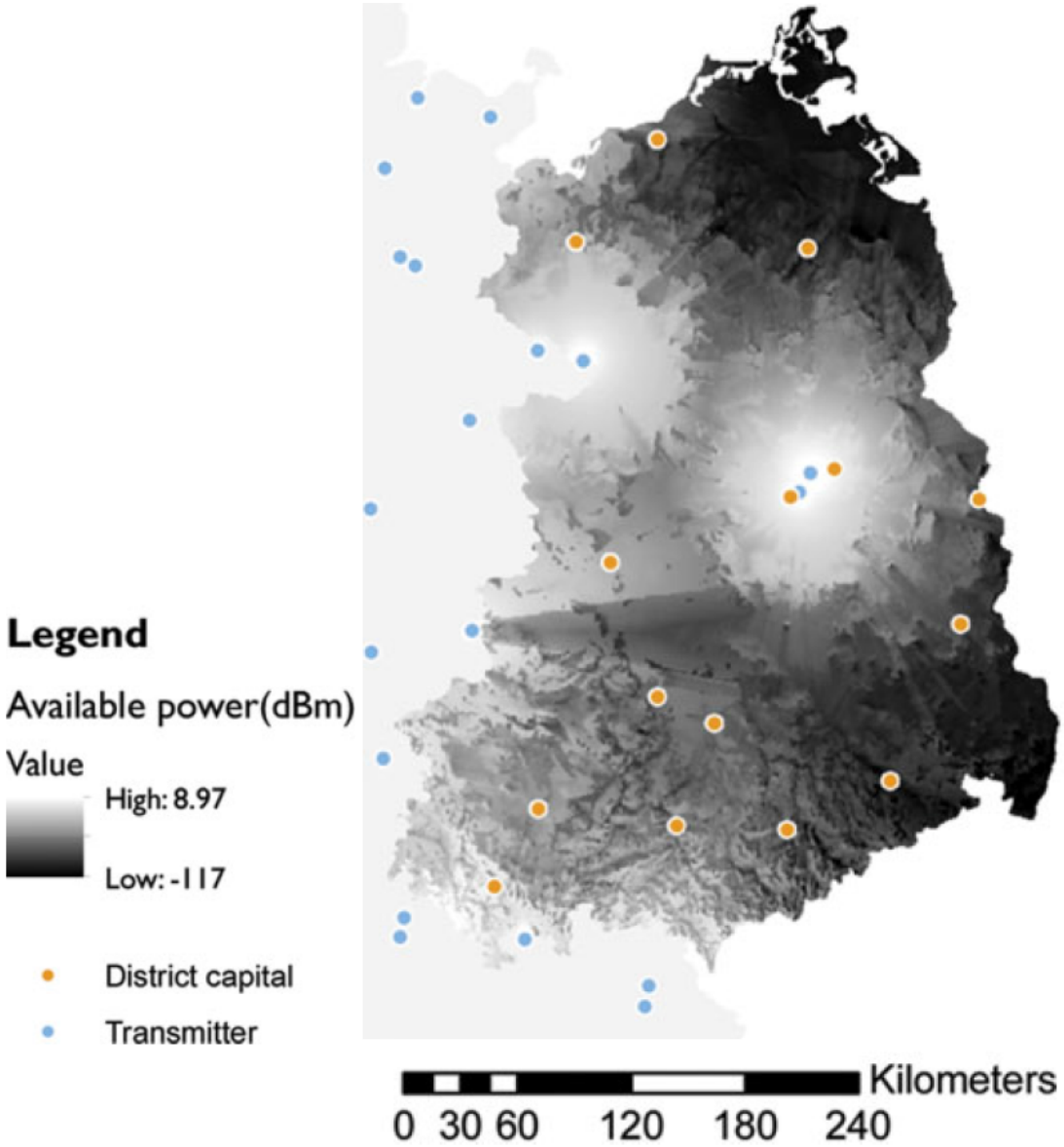
Intergroup contact theory

Theory

Intergroup contact theory suggests that intergroup contact typically reduces racial and ethnic intergroup prejudice (Pettigrew and Tropp, 2006).

1. **direct contact** (Williams, 1947; Allport, 1954)
   - very small number of foreigners
   - foreigners were not integrated
   - strict travel restrictions
2. **indirect contact** (Schiappa et al., 2005; Dovidio et al., 2011)
   - tight control on all media
   - some regions in the GDR were able to receive West German television (**WGTV**), which contained a high proportion of foreign content

Reception of WGTV in the GDR



Hypothesis

Hypothesis

Reception of WGTV programs in the former GDR reduced xenophobia and therefore leads to a lower voting outcome for right-wing parties.

Identification strategy

1. The inhabitants in the treatment and control area were comparable and varied only in the access to WGTV ▸ Appendix
2. The individuals that potentially had access to WGTV due to their geographical location were able to receive it and actually watched it
   - Overall 98% of the households in East Germany had a television set by 1989 (Müller, 2000).
   - No technical issues between the West and East German TV system
   - In 1987, 85% of the population were using WGTV regularly (Förster, 1995).
3. Internal migration (e.g. Bursztyn and Cantoni, 2016; Hyll and Schneider, 2013; Kern and Hainmueller, 2009)

Results

Panel estimation

	Right parties (1)		Right parties (2)		Right parties (3)	
	b	p	b	p	b	p
TV dummy	-1.213^{***}	0.000	-1.245^{***}	0.000	-1.506^{***}	0.000
GDRT	0.492^{**}	0.006	0.607^{***}	0.000	2.216^{***}	0.001
Foreigners (%)	−0.150	0.213	−0.221	0.139	−0.231	0.148
Foreigners in 1989 (%)	2.171^{***}	0.000	2.090^{***}	0.000	1.895^{***}	0.000
Foreign visitors	-1.481^{***}	0.000	-1.219^{***}	0.000	-1.223^{***}	0.000
Hotel rooms in 1989	0.355	0.176	0.184	0.428	0.152	0.477
Votes for NSDAP in 1933	−0.037	0.241	−0.023	0.315	−0.019	0.361
ln Population density			0.607^{***}	0.000	0.657^{***}	0.000
Women (%)			-1.480^{***}	0.000	-1.468^{***}	0.000
High school diploma (%)			−0.005	0.860	−0.011	0.704
High school dropout (%)			−0.026	0.399	−0.031	0.311
Unemployment rate total			0.018	0.685	0.024	0.586
Income			0.000	0.172	0.000	0.125
TV dummy × GDRT					-1.758^{**}	0.006
Intercept	1.424	0.357	71.155^{***}	0.000	70.377^{***}	0.000
Year dummies	✓		✓		✓	
Observations	1519		1519		1519	

Note: Random effects model. The dependent variable in Model 1-3 is the voting outcome of right-wing parties in the federal elections from 1994 to 2017. Model 1 includes a reduced set of control variables. Model 2 includes further demographic and economic control variables. Model 3 includes an interaction term between the TV dummy and the GDRT variable. Standard errors clustered at district level. $^{+}$ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Robustness

Robustness

- Excluding Berlin
- Cross sections
- Panel estimation including previous election results ▸ Appendix
- Different thresholds of the signal strength ▸ Appendix
- Sample split in north and south ▸ Appendix
- Panel estimation including border distance ▸ Appendix
- Spillover effects ▸ Appendix
- General dissatisfaction ▸ Appendix

Other measures for xenophobia

1. Attitudes towards refugees (GSOEP) ▸ Appendix
   - Opinions related to economic, cultural and social consequences of the immigration of refugees
   - Willingness to donate for refugees or participate in demonstrations for initiatives to help refugees
   - WGTV exposure had overall a positive effect on the respondents' attitudes towards refugees
2. Attacks targeting refugees ▸ Appendix
   - 4126 incidents from January 2015 to December 2018
   - Negative and significant relationship between former WGTV exposure and the number of arson attacks and the number of incidents related to anti-refugee demonstrations

Conclusion

Conclusion

- We have found empirical evidence for a mitigating impact of media on xenophobia.
- We find that the political preferences of the two groups do not converge over time.
- The differences between areas with and without Western television can not solely be explained by economic situation, differences between city and countryside or by some inherent 'right-wing tradition' .

Thank you for your attention!

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Appendix

Differences between treatment and control districts

back

	Treatment	Control	Difference	
	mean	mean	difference	p-value
1955				
share of women *(%)*	56.79	56.62	0.17	0.8819
average household size	2.79	2.90	−0.11	0.5668
infant mortality	50.09	45.33	4.76	0.3601
suicides per 100,000 inhabitants	24.72	21.99	2.73	0.5874
sales per capita	1654.55	1645.00	9.55	0.9413
1989				
share of women *(%)*	51.97	51.60	0.37	0.5362
average household size (1981)	2.57	2.70	−0.13	0.3171
infant mortality	7.95	6.77	1.19	0.0686
suicides per 100,000 inhabitants	27.06	25.63	1.43	0.5001
sales per capita	7576.27	7874.33	−298.06	0.2504
percentage of foreigners *(%)*	1.06	0.94	0.12	0.7368
share of foreign tourists in intercamping *(%)*	18.20	25.18	−6.98	0.6494
share of foreign tourists in youth leisure facilities *(%)*	15.77	16.42	−0.66	0.8920

Note: District differences between treatment (11) and control area (3). P-values based on Welch's t-tests of difference in means (two-sided, designed for unequal variances).

Differences between treatment and control counties

back

Federal state elections in 1946 during the Soviet occupation

	Treatment	Control	Difference	
Mecklenburg-West Pomerania	mean	mean	difference	p-value
SED *(%)*	44.90	49.80	−4.89	0.1935
CDU *(%)*	34.00	34.35	−0.68	0.8242
LDP *(%)*	14.62	10.54	4.08	0.2436
Saxony				
SED *(%)*	49.21	50.19	−0.98	0.5692
CDU *(%)*	25.30	22.49	2.81	0.2400
LDP *(%)*	22.25	23.72	−1.48	0.6887

Note: County differences in the voting outcome of the three main parties in the federal state election in the year 1946 in the states Mecklenburg-West Pomerania and Saxony. Total number of counties 59 (treatment area: 40 and control area: 19). P-values based on Welch's t-tests of difference in means (two-sided, designed for unequal variances). *Socialist Unity Party of Germany* (SED), *Christian Democratic Union of Germany* (CDU), *Liberal Democratic Party of Germany* (LDP).

Panel estimation including previous election results

back

	Right parties	
	b	p
TV dummy	-0.530^{**}	0.009
GDRT	1.499^{**}	0.004
TV dummy × GDRT	-1.144^{*}	0.016
Previous election results	1.203^{***}	0.000
Foreigners (%)	-0.169^{+}	0.051
Foreigners in 1989 (%)	0.652^{**}	0.005
Foreign visitors	-0.763^{***}	0.000
Hotel rooms in 1989	0.027	0.697
Votes for NSDAP in 1933	-0.013^{*}	0.017
ln Population density	0.561^{***}	0.000
Women (%)	-1.094^{***}	0.000
High school diploma (%)	0.005	0.735
High school dropout (%)	0.040	0.161
Unemployment rate total	0.020	0.519
Income	0.000	0.100
Intercept	50.218^{***}	0.000
Year dummies	✓	
Observations	1519	

Note: Random effects model. The dependent variable in Model 1 is the voting outcome for right-wing parties in the federal elections from 1994 to 2017. Standard errors clustered at district level. $^{+}$ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Different thresholds of signal strengths

back

	(1) -85.0 dBm		(2) -82.5 dBm		(3) -80.0 dBm		(4) Kern (2011)	
	b	p	b	p	b	p	b	p
TV dummy	-1.742^{***}	0.000	-1.583^{***}	0.000	-1.613^{***}	0.000	-1.440^{***}	0.000
GDRT	2.129^{**}	0.001	2.059^{**}	0.003	1.593^{***}	0.001	2.464^{***}	0.000
TV dummy × GDRT	1.660^{**}	0.008	-1.599^{*}	0.017	-1.124^{*}	0.012	-2.011^{***}	0.001
Foreigners (%)	−0.232	0.141	−0.233	0.141	−0.236	0.148	−0.228	0.159
Foreigners in 1989 (%)	1.938^{***}	0.000	1.785^{***}	0.000	1.755^{***}	0.001	1.869^{***}	0.001
Foreign visitors	-1.240^{***}	0.000	-1.234^{***}	0.000	-1.240^{***}	0.000	-1.205^{***}	0.000
Hotel rooms	0.132	0.524	0.150	0.471	0.081	0.684	0.131	0.536
Votes for NSDAP in 1933	−0.027	0.145	−0.028	0.136	-0.029^{+}	0.088	0.006	0.794
ln Population density	0.662^{***}	0.000	0.691^{***}	0.000	0.709^{***}	0.000	0.643^{***}	0.001
Women (%)	-1.464^{***}	0.000	-1.457^{***}	0.000	-1.454^{***}	0.000	-1.468^{***}	0.000
High school diploma (%)	−0.010	0.719	−0.013	0.653	−0.010	0.734	−0.008	0.777
High school dropout (%)	−0.032	0.305	−0.032	0.292	−0.031	0.320	−0.031	0.328
Unemployment rate total	0.017	0.702	0.016	0.714	0.012	0.771	0.027	0.551
Income	0.000	0.125	0.000	0.136	0.000	0.172	0.000	0.115
Intercept	70.878^{***}	0.000	70.618^{***}	0.000	71.004^{***}	0.000	69.710^{***}	0.000
Year dummies	✓		✓		✓		✓	
Observations	1519		1519		1519		1519	

Note: Random effects model. The dependent variable in Model 1-4 is the voting outcome of right-wing parties in the federal elections from 1994 to 2017. The cutoff level in Model 1 is -85.0 dBm, in Model 2 -82.5 dBm and in Model 3 -80.0 dBm. In Model 4, we use the classification from Kern (2011). Standard errors clustered at district level. Significance levels: $^{+}$ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Sample split

back

	(1) North		(2) South	
	b	p	b	p
TV dummy	-1.123^{**}	0.002	-0.547^{+}	0.064
GDRT	1.282^{***}	0.000	3.498^{***}	0.000
TV dummy × GDRT	-0.818^{***}	0.000	-2.927^{***}	0.000
Foreigners (%)	0.097^{*}	0.036	-0.549^{***}	0.000
Foreigners in 1989 (%)	−0.391	0.662	2.760^{***}	0.000
Foreign visitors	-0.510^{*}	0.046	-0.183^{+}	0.766
Hotel rooms in 1989	−0.015	0.925	0.412^{*}	0.035
Votes for NSDAP in 1933	0.025	0.402	−0.027	0.371
ln Population density	−0.050	0.738	0.796^{***}	0.000
Women (%)	−0.260	0.459	-1.552^{***}	0.000
High school diploma (%)	0.006	0.872	0.028	0.249
High school dropout (%)	-0.048^{**}	0.004	−0.043	0.196
Unemployment rate total	0.005	0.905	−0.033	0.469
Income	−0.000	0.926	0.000	0.768
Intercept	15.601	0.348	74.988^{***}	0.000
Year dummies	✓		✓	
Observations	462		1057	

Note: Random effects models. In both models, the dependent variable is the voting outcome for right-wing parties in the federal elections from 1994 to 2017. Model 1 (2) includes only the 66 (151) counties that are located in the northern (southern) half of the former GDR. Berlin represents the border between both areas. Standard errors clustered at district level. $^{+}$ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Panel estimation including border distance

back

	(1) Border Dummy		(2) Border Distance	
	b	p	b	p
TV dummy	-1.073^{***}	0.001	-0.600^{*}	0.024
GDRT	2.056^{**}	0.002	2.160^{***}	0.001
TV dummy × GDRT	-1.546^{*}	0.012	-1.747^{**}	0.003
Border dummy	1.164^{***}	0.001		
Border distance			-0.000^{***}	0.000
Foreigners (%)	−0.258	0.107	-0.261^{+}	0.090
Foreigners in 1989 (%)	1.334^{***}	0.001	0.686^{*}	0.016
Foreign visitors	-1.099^{***}	0.000	-1.173^{***}	0.000
Hotel rooms in 1989	0.256	0.125	0.257^{*}	0.046
Votes for NSDAP in 1933	-0.036^{*}	0.017	-0.041^{**}	0.003
ln Population density	0.708^{***}	0.000	0.716^{***}	0.000
Women (%)	-1.427^{***}	0.000	-1.447^{***}	0.000
High school diploma (%)	−0.007	0.783	−0.021	0.317
High school dropout (%)	−0.038	0.254	−0.003	0.932
Unemployment rate total	0.029	0.493	0.018	0.587
Income	0.000	0.106	0.000	0.350
Intercept	68.358^{***}	0.000	73.636^{***}	0.000
Year dummies	✓		✓	
Observations	1519		1519	

Note: Random effects models. The dependent variable is the voting outcome for right-wing parties in the federal elections from 1994 to 2017. Model 1 includes a dummy which equals one if the county is located in an electoral district next to the border to PL or the CZ. Model 2 includes the geodesic line in kilometers between the center of a county and its closest border. Standard errors clustered at district level. $^{+}$ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Spillover effects

back

	(1)		(2)	
	b	p	b	p
TV dummy	-1.708^{***}	0.000	-1.429^{**}	0.007
GDRT	2.256^{**}	0.002	2.638^{*}	0.024
TV dummy × GDRT	-1.751^{*}	0.014	-2.097^{+}	0.066
Foreigners (%)	−0.192	0.170	−0.197	0.166
Foreigners in 1989 (%)	1.973^{***}	0.000	2.296^{***}	0.000
Foreign visitors	-1.326^{***}	0.000	-1.141^{***}	0.000
Hotel rooms in 1989	0.128	0.445	0.199	0.266
Votes for NSDAP in 1933	−0.017	0.307	−0.017	0.350
ln Population density	0.593^{***}	0.000	0.532^{***}	0.000
Women (%)	-1.402^{***}	0.000	-1.351^{***}	0.000
High school diploma (%)	0.002	0.924	0.014	0.571
High school dropout (%)	-0.056^{+}	0.066	-0.068^{*}	0.039
Unemployment rate total	−0.003	0.935	−0.017	0.663
Income	0.000	0.163	0.000	0.242
Intercept	68.284^{***}	0.000	65.867^{***}	0.000
Year dummies	✓		✓	
Observations	1393		1295	

Note: Random effects models. In both models, the dependent variable is the voting outcome for right-wing parties in the federal elections from 1994 to 2017. In Model 1, the 18 counties of the treatment area that are located next to the control area are excluded. In Model 2, the 14 counties of the control area that are situated next to the treatment area are additionally excluded. $^{+}$ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

General dissatisfaction

back

	(1) Left Parties		(2) Turnout		(3) Invalid votes	
	b	p	b	p	b	p
TV dummy	0.687	0.111	0.630	0.261	−0.062	0.308
GDRT	−0.907	0.447	−1.289	0.116	−0.119	0.320
TV dummy × GDRT	1.130	0.338	0.792	0.313	0.104	0.372
Foreigners (%)	0.249^{***}	0.000	-0.174^{***}	0.000	−0.015	0.213
Foreigners in 1989 (%)	-2.925^{***}	0.001	1.880^{**}	0.006	−0.094	0.139
Foreign visitors	−0.239	0.678	-0.876^{+}	0.067	−0.009	0.925
Hotel rooms in 1989	−0.138	0.596	0.683	0.112	−0.003	0.856
Votes for NSDAP in 1933	0.087^{*}	0.016	−0.035	0.467	0.012^{**}	0.006
ln Population density	0.589^{*}	0.034	0.535^{+}	0.061	-0.109^{*}	0.011
Women (%)	-0.339^{*}	0.016	−0.057	0.764	-0.046^{+}	0.079
High school diploma (%)	−0.043	0.303	0.101^{**}	0.005	0.004	0.643
High school dropout (%)	−0.044	0.462	-0.126^{+}	0.084	−0.020	0.187
Unemployment rate total	−0.042	0.502	−0.009	0.882	0.024^{+}	0.094
Income	−0.000	0.946	0.000	0.320	0.000	0.519
Intercept	33.193^{***}	0.001	66.880^{***}	0.000	3.604^{*}	0.013
Year dummies	✓		✓		✓	
Observations	1519		1519		1519	

Note: Random effects models. The dependent variable in Model 1 to 3 are the voting outcome for the left-wing parties, the voting turnout and the share of invalid votes in the federal elections from 1994 to 2017, respectively. Standard errors clustered at district level. $^{+}$ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

GSOEP: Individual questionnaire 2016

back

Is it generally good or bad for the German economy that refugees are coming here?

Bad for the economy ☐☐☐☐☐☐☐☐☐☐☐ Good for the economy

Will refugees erode or enrich cultural life in Germany?

Erode ☐☐☐☐☐☐☐☐☐☐☐ Enrich

Will Germany become a better or worse place to live because of the refugees?

A worse place ☐☐☐☐☐☐☐☐☐☐☐ A better place

Does a large influx of refugees mean more risks or more opportunities <u>in the short term</u>?

More risks in the short term ☐☐☐☐☐☐☐☐☐☐☐ More opportunities in the short term

Does a large influx of refugees mean more risks or more opportunities <u>in the long term</u>?

More risks in the long term ☐☐☐☐☐☐☐☐☐☐☐ More opportunities in the long term

150. Which of the following activities relating to refugee issues have you engaged in since last year, and which do you plan to (also) engage in in the future?

	Have you done that since last year?		Do you plan to (also) do that in the future?	
	Yes	No	Yes	No
Donating money or goods to help refugees	☐	☐	☐	☐
Working with refugees directly (e.g., accompanying them to government agencies, providing support in language learning)	☐	☐	☐	☐
Going to demonstrations or collecting signatures for initiatives to help refugees	☐	☐	☐	☐

Attitude towards refugees

back

	(1) Economic		(2) Culture		(3) Better place	
	b	p	b	p	b	p
TV dummy	0.161^{*}	0.029	0.157^{+}	0.068	0.106	0.181
GDRT	−0.109	0.119	−0.048	0.560	−0.047	0.529
TV dummy × GDRT	0.093	0.175	0.005	0.952	−0.031	0.673
County controls	✓		✓		✓	
Observations	217		217		217	

	(4) Short-term Opportunity		(5) Long-term Opportunity		(6) Combination	
	b	p	b	p	b	p
TV dummy	0.146^{*}	0.027	0.224^{*}	0.025	0.172^{*}	0.027
GDRT	-0.183^{**}	0.003	-0.202^{*}	0.033	-0.150^{*}	0.045
TV dummy × GDRT	0.133^{*}	0.030	0.163^{+}	0.080	0.082	0.252
County controls	✓		✓		✓	
Observations	217		217		217	

Note: Linear mixed effect models. All models include district as random effects variable and our explanatory variables as fixed effects terms. Significance levels: $^{+}$ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Refugee-related activities

back

	(1) Donating (past)		(2) Donating (future)		(3) Working (past)	
	b	p	b	p	b	p
TV dummy	0.025^{**}	0.004	0.044^{***}	0.000	0.004	0.323
GDRT	-0.017^{*}	0.040	-0.043^{***}	0.000	0.005	0.263
TV dummy × GDRT	0.006	0.463	0.029^{**}	0.004	−0.004	0.350
County controls	✓		✓		✓	
Observations	217		217		217	

	(4) Working (future)		(5) Demonstration (past)		(6) Demonstration (future)	
	b	p	b	p	b	p
TV dummy	0.016^{**}	0.002	0.001	0.803	0.006	0.366
GDRT	0.000	0.999	-0.016^{***}	0.000	-0.028^{***}	0.000
TV dummy × GDRT	0.001	0.800	0.008^{*}	0.038	0.020^{**}	0.002
County controls	✓		✓		✓	
Observations	217		217		217	

Note: Linear mixed effect models. All models include district as random effects variable and our explanatory variables as fixed effects terms. Significance levels: $^{+}$ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Hate crime against refugees

back

	(1) Arson		(2) Battery		(3) Other assaults		(4) Demonstration	
	b	p	b	p	b	p	b	p
TV dummy	−0.179*	0.023	0.087	0.815	−0.493	0.495	−0.228*	0.016
GDRT	−0.110+	0.063	−0.600**	0.008	0.052	0.894	−0.306**	0.002
TV dummy × GDRT	0.092	0.116	0.424*	0.030	0.198	0.636	0.353***	0.000
Foreigners (%)	−0.038+	0.090	0.104	0.529	0.238	0.268	0.056	0.549
Foreigners in 1989 (%)	0.051	0.561	0.568	0.126	2.501***	0.000	0.488*	0.022
Foreign visitors	−0.013	0.818	−0.289	0.295	−0.525	0.207	−0.225	0.201
Hotel rooms	−0.009	0.710	−0.137	0.303	0.216	0.400	0.162*	0.027
Votes for NSDAP in 1933	−0.011*	0.014	−0.010	0.786	−0.076	0.232	−0.022**	0.001
ln Population density	0.012	0.772	−0.341+	0.059	−0.655**	0.009	0.017	0.853
Women (%)	0.005+	0.091	−0.011	0.812	0.049	0.114	0.006	0.589
High school diploma (%)	−0.004	0.397	−0.013	0.599	−0.028	0.322	−0.012	0.541
High school dropout (%)	−0.000	0.998	0.006	0.954	0.054	0.775	0.011	0.818
Unemployment rate total	0.001	0.972	−0.007	0.968	−0.212	0.293	−0.106	0.131
Income	0.000	0.665	−0.000	0.593	0.000	0.892	−0.000	0.456
Intercept	0.641	0.576	6.160	0.467	5.641	0.615	4.401	0.132
Year dummies	✓		✓		✓		✓	
Observations	868		868		868		868	

Note: Random effects models. The dependent variables in Model 1 and 2 are the number of arson attacks and the number of battery crimes per 1000 refugees. In Model 3 and 4 the dependent variables are the number of other assaults and the number of incidents during anti-refugee demonstrations per 1000 refugees. Standard errors clustered at district level. Significance levels: $^{+}$ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Naturalization

back

	Naturalization per capita	
	b	p
TV dummy	0.060^{*}	0.021
GDRT	-0.045^{+}	0.067
TV dummy × GDRT	0.012	0.611
Border distance	−0.000	0.252
Foreigners (%)	0.046^{***}	0.000
Foreigners in 1989 (%)	0.007	0.880
Foreign visitors	0.065^{***}	0.000
Hotel rooms	0.006	0.693
Votes for NSDAP in 1933	0.000	0.977
ln Population density	0.013	0.415
Women (%)	0.074^{***}	0.001
High school diploma (%)	0.005^{**}	0.002
High school dropout (%)	0.022^{***}	0.000
Unemployment rate total	−0.004	0.608
Unemployment rate foreigners	0.003^{*}	0.021
Income	0.000^{**}	0.004
Intercept	-4.872^{***}	0.000
Observations	217	

Note: Linear mixed effects model includes district as random effects variable and our explanatory variables as fixed effects terms. Significance levels: $^{+}$ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.