

# Home Country Socio-Political Conditions, Return Intentions, and Labor Market Outcomes

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August 30, 2023

## Motivation (1/2)

- ▶ Many migration spells are temporary (OECD, 2019, 2008; Dustmann and Goerlach, 2016)
- ▶ Although **immigrants arrive in the host country with a planned duration of stay** → **most end up revising their expectations**
  - ▶ Changes in their personal circumstances
  - ▶ **Changes in aggregate conditions in both their home and host countries**

## Motivation (2/2)

- ▶ Revisions to the intended length of stay may lead to **subsequent changes in the socio-economic behaviour of migrants**
  - ▶ Differences in return plans lead to differences in immigrants' reservation wages, earnings and career profiles (Dustmann et al, 2020)

## Research question

**Do socio-political events in home countries** (such as terror or political violence) **affect the intended length of stay and the labour market behaviour of migrants in host societies?**

- ▶ Mechanism: Events in the home country work as **shocks to migrants' location preferences** and change the attractiveness of destination country relative to home country.

## Related literature

1. Negative effect of terror events on individuals' well-being (Clark et al, 2020, Akay et al, 2018):
2. Negative effect of deteriorating macroeconomic conditions in the home country on migrants' well-being:
  - ▶ Such as an increase in the GDP (relative deprivation), currency valuation or natural disaster (Akay et al. 2016; Bharadwaj et al, 2020)
3. Migrants' return intentions:
  - ▶ Negative effect of natives anti-immigrant attitudes & xenophobic violence on migrants' intended duration (Coulon et al, 2016; Friebel et al 2012)
  - ▶ Family events, finding/leaving a partner or the death of a parent and perceived risks (labour market random shocks) matter for the intention to stay/return (Dustmann, 1997; Dustmann et al, 2020);

# Contribution

- ▶ We contribute to this literature by looking at the effect of terror events (1) in the home country (2) on migrants return intentions (3) and labor market outcomes (4).
- ▶ Use **terror events** because these are largely **unpredictable** from the perspective of most individuals residing in their home country and abroad.

# Data

- ▶ Terror: Global Terror Database (GTD), 2000-2018, more than 200,000 recorded events
- ▶ German SOEP: yearly household survey that is representative of the German population, using all waves from 2000 to 2018, only first-generation migrants
  - ▶ Interview date
  - ▶ Intentions to stay
- ▶ Admin. IEB data: Social Security data on the full population of migrants in Germany from 2000 to 2018 (10% sample)
  - ▶ Unemployment duration, wages, occupation, industry

# **Effects of terror on return migration intentions**



## Empirical strategy

- ▶ Our **identification strategy** relies on the **quasi-random occurrence of the date of the event at origin** relative to the timing of the SOEP interviews and the characteristics of the respondent being interviewed
  - ▶ Reasonable to assume that events at country of origin did not interfere with the implementation of the survey in Germany
- ▶ We compare outcomes between **individuals interviewed in the weeks immediately before a terror event (control group)** and individuals with similar characteristics from the same country of origin in a given year and month, but **interviewed in the weeks immediately after that terror event (treatment group)**

# Empirical strategy

$$l_{i,o,y,t} = \sum_{t=-P}^T \beta_t \text{Time}_t + \delta X_{i,y} + \mu_{o,y} + \phi_m + \rho_{f,y} + \epsilon_{i,o,y,t}$$

- ▶  $\text{Time}_t$ 's are dummies identifying periods around the event (e.g.,  $t = 1$  for individuals interviewed 1 month after the event)
- ▶  $\mu_{o,y}$  are country of origin FE x year FE
- ▶  $\phi_m$  are interview month FE
- ▶  $\rho_{f,y}$  are federal state of residence FE
- ▶ X is a set of individual controls
- ▶ 30, 60, 90 days bandwidth

## Definition of relevant terror events

Individuals from **different home countries at different points in time** will have **different reference points** with respect to their **perception security** in their home country

We assign to each month-year-country of origin combination:

- ▶ a 1 if the number of events is larger than the past-three-year, four-year or five-year average.
- ▶ a 0 if lower or equal to the past-three-years, four-year or five-year average.

Consider isolated events

## Preliminary checks

To assess the **validity of our identification strategy**:

- ▶ Density distribution of interviews around the time of relevant events [Figure](#)
- ▶ Balance test of covariates comparing individuals interviewed before and after relevant events [Figure](#)

# Terrorist events in the home country affect intentions to remain in Germany (90 days bandwidth)

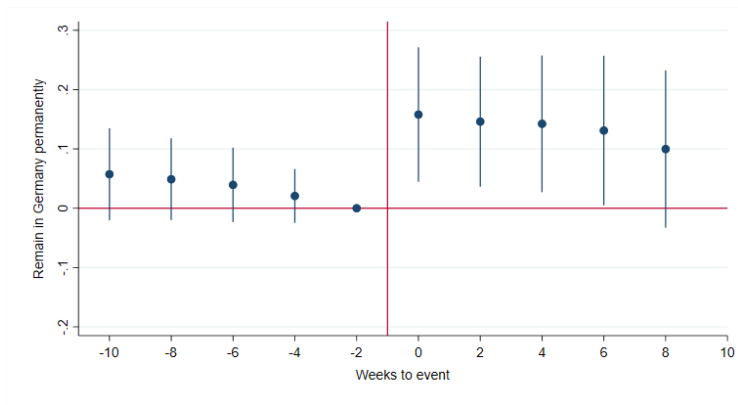


Figure 1: Event study coefficients

## Terrorist events in the home country affect intentions to remain in Germany (90 days bandwidth)

	Higher than average of last 3 years			
	(1)	(2)	(3)	(4)
Post-Terror	0.122*** (0.030)	0.122*** (0.030)	0.125*** (0.030)	0.123*** (0.030)
Observations	6604	6604	6604	6604
Origin country x Year FE	Yes	Yes	Yes	Yes
Month FE,	Yes	Yes	Yes	Yes
State of Residency FE	Yes	Yes	Yes	Yes
Indiv. Controls	No	Some	Some	Yes

Standard Errors in parenthesis clustered at the Country x Year x Month level, \* $p < .1$ ; \*\* $p < .05$ ; \*\*\* $p < .01$

Notes: column (2) adds gender, age, ysm and ysm squared; column (3) adds marital status and children; and column (4) adds educational achievement

**Table 1:** Terror events and intentions to remain in Germany

## Intensity of events: Interaction with number of killed

	Higher than average of last 3 years		
	k=10 (1)	k=30 (2)	k=50 (3)
Post-Terror	0.130*** (0.032)	0.111*** (0.032)	0.110*** (0.032)
Post-Terror $\times$ (k or $>$ than killed)	0.096** (0.039)	0.197*** (0.057)	0.223*** (0.061)
Observations	6604	6604	6604
Origin country $\times$ Year FE	Yes	Yes	Yes
Month FE,	Yes	Yes	Yes
State of Residency FE	Yes	Yes	Yes
Indiv. Controls	Yes	Yes	Yes

Standard Errors in parenthesis clustered at the Country  $\times$  Year  $\times$  Month level, \* $p < .1$ ; \*\* $p < .05$ ; \*\*\* $p < .01$

Table 2: Intensity of terror events and intentions to remain in Germany

# Overall Political Stability

	Political stability index		Mean monthly terror	
	Previous year (1)	Mean prev. 3 years (2)	Previous year (3)	Mean prev. 3 years (4)
Post-Terror × Pol. Stab. ≤25	0.146*** (0.040)	0.134*** (0.039)		
Post-Terror × Pol. Stab. ]25-75]	0.109*** (0.036)	0.115*** (0.036)		
Post-Terror × Pol. Stab. > 75	0.136*** (0.044)	0.135*** (0.042)		
Post-Terror × >12 attacks month			0.190*** (0.045)	0.186*** (0.044)
Post-Terror × ]0-12] attacks month			0.115*** (0.036)	0.106*** (0.033)
Post-Terror × 0 attacks month			0.110*** (0.053)	0.138*** (0.049)
Observations	6604	6604	6604	6604
Origin country x Year FE	Yes	Yes	Yes	Yes
Month FE,	Yes	Yes	Yes	Yes
State of Residency FE	Yes	Yes	Yes	Yes
Indiv. Controls	Yes	Yes	Yes	Yes

Standard Errors in parenthesis clustered at the Country × Year × Month level, \*p<.1; \*\*p<.05; \*\*\*p<.01

**Table 3:** Overall political stability, terror events and intentions to remain in Germany



# Robustness checks

Main results on intentions to stay are robust to a series of tests:

- ▶ Placebo: assign random dates to terrorist events [Figure](#)
- ▶ Placebo outcomes, such as worries about the environment, economic development, crime in Germany and future of the EU [Figure](#)
- ▶ Exclude one country [Figure](#) or year [Figure](#) at a time
- ▶ Number of terrorist events in a month is above the 3, 4 or 5-year historical mean [Table](#)
- ▶ Using 30, 60 or 90 days bandwidth (closer to the event, larger effect) [Table](#)

# Heterogeneity: integration and family location

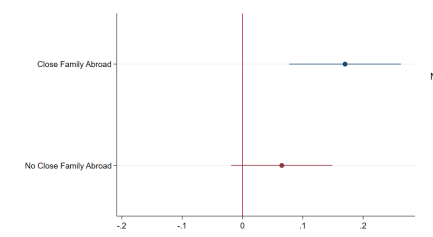


Figure 2: Core family abroad

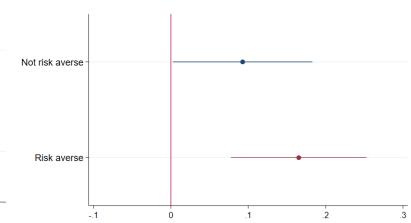


Figure 3: Risk aversion

# Effects of terror events on labor market outcomes

# Intentions to stay and economic behavior

- ▶ Does an update of intentions to stay translate into changes in economic behavior?
- ▶ Previous research has shown that differences in the intended length of stay can create **different incentives to invest in human capital**, which in turn leads to differences in career profiles (Adda et al., 2021)
- ▶ However, the **completion of an educational degree** or a change in the earnings path and career profile **take time to materialize**

## Definition of outcome variables: labor market outcomes

- ▶ A measurable indicator of economic behaviour that reacts quickly to individual circumstances is **job search activity or reservation wages among unemployed individuals**
  - **We take time to employment** as our preferred economic indicators
- ▶ We use a different dataset, the German administrative data (IEB), and a slightly different empirical approach

## Set-up

- ▶ We test whether a negative shock to return intentions, induced by terror events, has an **effect on the length of unemployment of immigrants entering unemployment when terror events occur in their home countries.**
- ▶ Specifically, we **compare** this group **to immigrants that enter unemployment in times of stable home country conditions.**

# Updating return intentions and economic behavior

A Terror event in the home country can:

(1) ↓ expected utility in the home country → **lower reservation wage in Germany**

▶ Shorter unemp. duration and lower accepted wage

(2a) ↑ "fear" of having to leave Germany owing to unsustainable econ. conditions or visa constraints (mostly non-EU migrants) → ↑ **search effort**

▶ Shorter unemp. duration and ambiguous effect accepted wage

(2b) ↑ "fear" and feel under strain → + determined to pursue a long-term career in Germany → ↑ **search effort and job selectivity** (mostly EU migrants)

▶ Ambiguous effect on unemp. duration and accepted wage

# Empirical strategy

$$Y_{i,o,y,m} = \beta \text{Error}_{y,m} + \delta X_i + \gamma_o + \eta_y + \phi_m + \rho_k + \epsilon_{i,o,y,m}$$

- ▶  $Y_{i,t}$  is unemployment duration, % wage change, change in occupation
- ▶  $\text{Error}_t$  is an indicator that takes the value of 1 if a person from country of origin  $o$  entered unemployment in a month  $m$  and year  $y$  when terrorist events occurred in the country of origin  $o$  and 0 if a person entered unemployment in a month with no events
- ▶  $\gamma_o$  is country of origin fixed effects
- ▶  $\eta_y$  are year fixed effects
- ▶  $\phi_m$  are month fixed effects
- ▶  $\rho_k$  are local labour market fixed effects
- ▶  $X$  is a set of covariates



# Entering unemployment at the time of a terror event

	Unemp. durat. (1)	Change occup. (2)	Change industry (3)	FT employ (4)	% wage change (5)
<b>Panel A: Non-EEA/Schen. mig.</b>					
Unemp. with terror	-21.790** (9.890)	-0.010 (0.009)	-0.001 (0.009)	0.012 (0.007)	-0.021 (0.124)
Observations	101052	100697	100697	100697	100250
<b>Panel B: EEA/Schen. mig.</b>					
Unemp. with terror	9.990 (10.596)	0.043*** (0.010)	0.023** (0.010)	0.001 (0.009)	0.252 (0.179)
Observations	87444	86719	86719	86719	86400
Year FE	Yes	Yes	Yes	Yes	Yes
Month FE	Yes	Yes	Yes	Yes	Yes
LLM FE	Yes	Yes	Yes	Yes	Yes
C. Origin x State FE	Yes	Yes	Yes	Yes	Yes
Indiv. charact.	Yes	Yes	Yes	Yes	Yes

Robust Standard Errors in parenthesis, \* $p < .1$ ; \*\* $p < .05$ ; \*\*\* $p < .01$

# Entering unemployment at the time of a terror event

	Change larger firm (1)	Change high pay firm (2)	Change fewer low skill firm (3)	Change higher share foreigners (4)	Change non-FTE bfu to FTE (5)	Change FTE bfu to non-FTE (6)
<b>Panel A: Non-EEA/Schen.</b>						
Unemp. with terror	-0.001 (0.008)	-0.019* (0.010)	0.005 (0.009)	-0.007 (0.008)	-0.001 (0.005)	0.001 (0.007)
Observations	96322	81061	96322	96322	100697	100697
<b>Panel B. EEA/Schen.</b>						
Unemp. with terror	0.016* (0.009)	0.011 (0.012)	0.024** (0.011)	0.005 (0.010)	-0.003 (0.006)	0.001 (0.008)
Observations	83576	69672	83576	83576	86719	86719
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Month FE	Yes	Yes	Yes	Yes	Yes	Yes
LLM FE	Yes	Yes	Yes	Yes	Yes	Yes
C. Origin x State FE	Yes	Yes	Yes	Yes	Yes	Yes
Indiv. charact.	Yes	Yes	Yes	Yes	Yes	Yes

Robust Standard Errors in parenthesis, \* $p < .1$ ; \*\* $p < .05$ ; \*\*\* $p < .01$

# Robustness checks

- ▶ Permutation tests [Figure](#)
- ▶ Changing bandwidth or reference point (above the 3, 4 year or 5 year historical mean) [Figure](#)
- ▶ Changing the EEA/Schengen area and non-EEA/Schengen area groups [Figure](#)

# Ruling Out Other Mechanisms

Table 4: Terror events, 90 days bandwidth

	Higher than average of last 3 years		
	Send money abroad (1)	Satisfaction with health (2)	Reservation wage (3)
Post-Terror	-0.036 (0.028)	-0.041 (0.181)	-363.651** (179.130)
Observations	6555	6489	575
Origin country x Year FE	Yes	Yes	Yes
Month FE,	Yes	Yes	Yes
State of Residency FE	Yes	Yes	Yes
Indiv. Controls	Yes	Yes	Yes

## Conclusive remarks

- ▶ We provide evidence that **terror events lead to an update in migrants' priors regarding the level of security in the country of origin, affecting their intended length of stay in Germany**
- ▶ **Non-EU immigrants who become unemployed in a month with terror events in the home country enter employment earlier.**
- ▶ Our results add an important and credible piece of evidence on the effect of home-country events on migrants' behaviour

Thank you!

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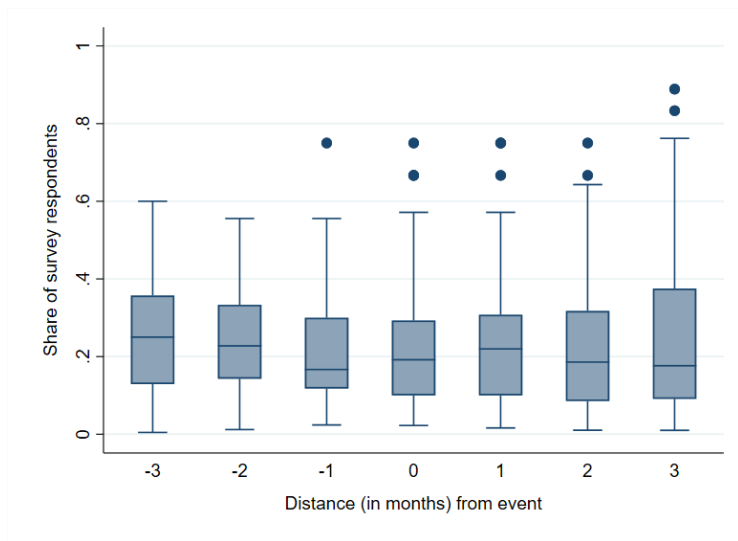
Teresa.Freitas-Monteiro@iab.de

# Immigrant population in the GSOEP 2000-18

	Entire sample 2000-18		Analysis sample 2000-18	
	Mean	SD	Mean	SD
Female	0.513	0.500	0.524	0.499
Age	42.606	14.344	43.986	14.418
Years since migration	17.049	12.885	20.031	12.404
Marital status	0.698	0.459	0.735	0.441
Has children	0.591	0.492	0.597	0.491
Low secondary or bellow educ.	0.348	0.476	0.347	0.476
Upper secondary educ.	0.322	0.467	0.354	0.478
Post-secondary educ.	0.133	0.340	0.135	0.342
Higher education	0.197	0.398	0.164	0.370
Full-time employed	0.338	0.473	0.360	0.480
Part-time employed	0.111	0.314	0.119	0.323
Other employed	0.079	0.270	0.082	0.274
Not employed	0.471	0.499	0.440	0.496
Remain in Germany permantly	0.835	0.371	0.812	0.391
Non-European	0.677	0.467	0.753	0.431
Observations	71059	71059	6604	6604

**Table 5:** Summary characteristics of the migrant population in the GSOEP data

## Density of interviews around terror events, 90 days Band





## Characteristics of immigrant respondents are balanced around terrorist events

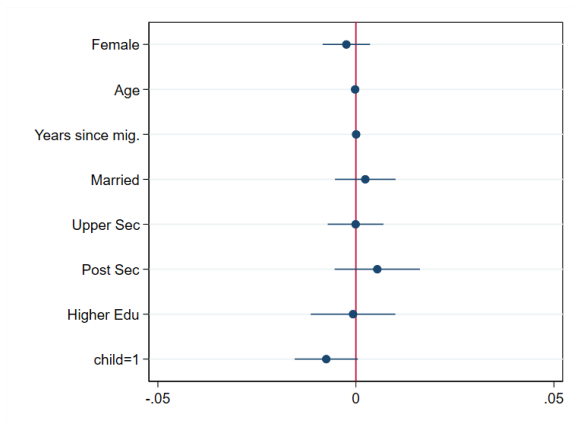
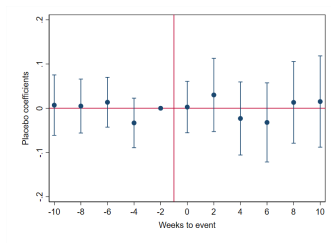


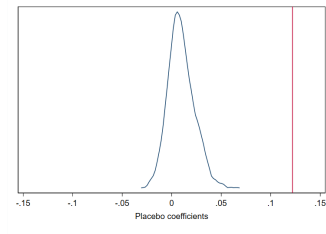
Figure 4: Joint significance of respondents' characteristics. Outcome is being interviewed right after a terrorist event. 90 days Band

# Placebo: reshuffle dates of terrorist events

Figure 5: Placebo Tests using random terror dates



(a) Event study, 90 days  
Bandwidth



(b) Coefficient distribution, 90 days  
Bandwidth

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# Robustness: Placebo outcomes

Worries about	Higher than average of last 3 years			
	Future of EU (1)	Crime in Ger. (2)	Econ. Develop. (3)	Environment (4)
Post-Terror	0.067 (0.104)	0.056 (0.060)	0.018 (0.056)	-0.044 (0.068)
Observations	908	5097	5334	5085
Origin country x Year FE	Yes	Yes	Yes	Yes
Month FE,	Yes	Yes	Yes	Yes
State of Residency FE	Yes	Yes	Yes	Yes
Indiv. Controls	Yes	Yes	Yes	Yes

\* $p < .1$ ; \*\* $p < .05$ ; \*\*\* $p < .01$

Standard Errors in parenthesis clustered at the Country x Year x Month level

Table 6: Terror events and placebo outcomes, 90 days bandwidth

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## Robustness: Exclude one country at a time

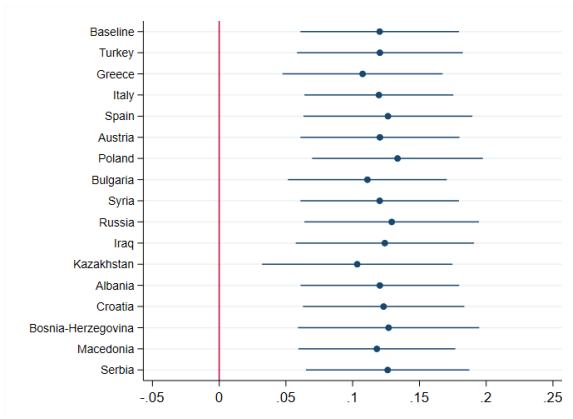


Figure 6: Effect of terror events on the intention to stay in Germany permanently, 90 days Bandwidth

## Robustness: Exclude one survey year at a time

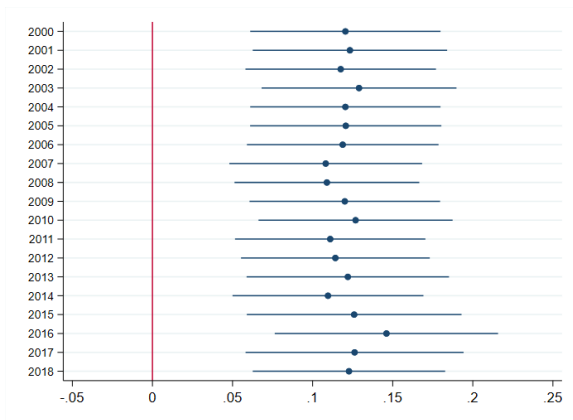


Figure 7: Effect of terror events on the intention to stay in Germany permanently, 90 days Bandwidth

## Robustness: Different bandwidths and means

Panel A: 30 days Bandwidth	Higher than average of last			Higher than average of last		
	5 years	4 years	3 years	5 years	4 years	3 years
	(1)	(2)	(3)	(4)	(5)	(6)
Post-Terror	0.328*** (0.047)	0.322*** (0.050)	0.329*** (0.049)	0.322*** (0.043)	0.321*** (0.047)	0.324*** (0.044)
Observations	1915	2056	2671	1915	2056	2671
Panel B: 60 days Bandwidth	Higher than average of last			Higher than average of last		
	5 years	4 years	3 years	5 years	4 years	3 years
	(1)	(2)	(3)	(4)	(5)	(6)
Post-Terror	0.147** (0.065)	0.202*** (0.041)	0.112*** (0.029)	0.146** (0.065)	0.207*** (0.041)	0.118*** (0.029)
Observations	3712	4078	4886	3712	4078	4886
Panel C: 90 days Bandwidth	Higher than average of last			Higher than average of last		
	5 years	4 years	3 years	5 years	4 years	3 years
	(1)	(2)	(3)	(4)	(5)	(6)
Post-Terror	0.074** (0.036)	0.083** (0.037)	0.122*** (0.030)	0.068* (0.037)	0.080** (0.037)	0.123*** (0.030)
Observations	5328	5790	6604	5328	5790	6604
Origin country x Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Month FE,	Yes	Yes	Yes	Yes	Yes	Yes
State of Residency FE	Yes	Yes	Yes	Yes	Yes	Yes
Indiv. Controls	No	No	No	Yes	Yes	Yes

Standard Errors in parenthesis clustered at the Country x Year x Month level, \* $p < .1$ ; \*\* $p < .05$ ; \*\*\* $p < .01$

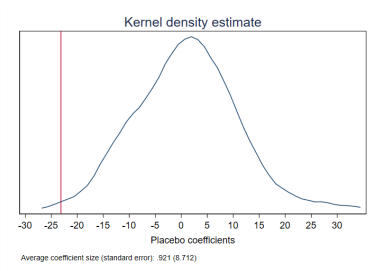
## Characteristics of immigrant entering unemployment with a terrorist events

	Treated mean	Control mean	Unemp. with terror Coef.
Middle education	0.289	0.341	0.001 (0.001)
High education	0.060	0.092	0.002 (0.001)
Age	36.748	37.401	-0.000*** (0.000)
Female	1.361	1.431	0.002** (0.001)
Years since mig. at unemp.	12.915	9.548	0.001*** (0.000)
Ln wage bfu	3.330	3.374	-0.000 (0.000)
Ln firm size bfu	3.676	3.641	0.000 (0.000)
Observations	15299	202439.00	217738
Year FE			Yes
Month FE			Yes
LLM FE			Yes
C. Origin x State FE			Yes

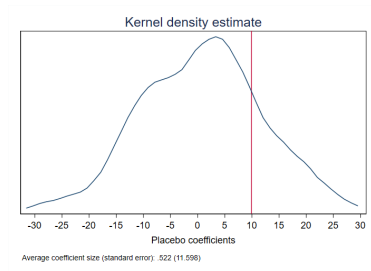
Robust Standard Errors in parenthesis, \* $p < .1$ ; \*\* $p < .05$ ; \*\*\* $p < .01$

Table 7: Balance in covariates among unemployed immigrants

# Robustness: placebo event date and unemployment duration



(a) Non-EAA/Schengen

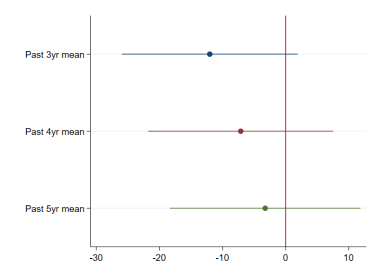


(b) EAA/Schengen.

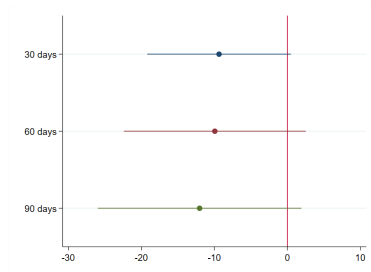
Figure 8: Robustness: terror events and unemployment due.



# Robustness: different bandwidth and reference point for unemployment duration



(a) Vary bandwidth



(b) Vary reference point

Figure 9: Robustness: terror events and unemployment duration

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# Robustness: group definition and unemployment duration

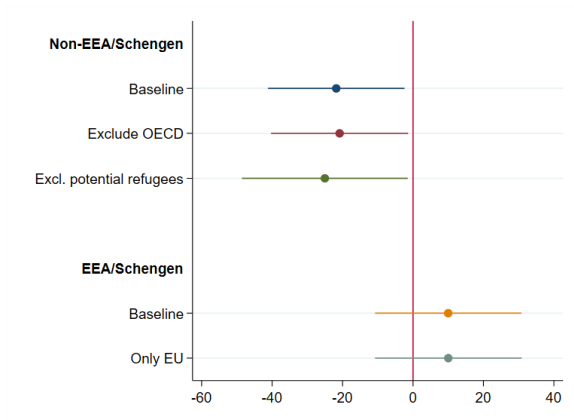


Figure 10: Robustness: vary group def. and unemployment duration