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**Working Paper**

## Immigrants' Returns Intentions and Job Search Behavior When the Home Country Is Unsafe

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# Immigrants' Returns Intentions and Job Search Behavior When the Home Country Is Unsafe

## Abstract

Migration is often temporary, and the intended length of stay in the host country is an important determinant of immigrants' labor market behavior, human capital investment, and socioeconomic integration. In this paper, we investigate whether safety conditions in the home country affect immigrants' return intentions and job search behavior. We combine administrative and survey data with precise information on terrorist attacks worldwide. Our identification strategy exploits the quasi-random occurrence of terrorist attacks in the home country relative to the timing of interviews and job separations in Germany. We show that immigrants interviewed after a terrorist attack in their home country are 12 percentage points more likely to wish to remain in Germany permanently. Immigrants react more strongly if they are less integrated in Germany and have close family members in their home country. Consistent with the prediction that revisions to the intended length of stay affect immigrants' labor market behavior, we show that immigrants who enter unemployment when a terrorist event hits their home country are 1.8 percentage points more likely to be employed within three months than immigrants who enter unemployment in quiet times. Among those who find employment within three months, immigrants who experience terror events receive lower hourly wages and are more likely to work part-time. These results suggest that immigrants who enter unemployment in a month with high levels of violence in the home country trade immediate job security for lower earnings and less-productive firms.

JEL-Codes: J150, J610, J640.

Keywords: immigration, uncertainty, violence, return migration, unemployment.

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# 1 Introduction

Many migration spells are temporary (OECD, 2019, 2008; Dustmann and Görlach, 2016).<sup>1</sup> Although immigrants arrive in the host country with an intended duration of stay, they often revise their expectations in response to changes in their personal circumstances and aggregate conditions at origin and destination (Dustmann and Görlach, 2016). These revisions to the intended length of stay may lead to subsequent changes in immigrants' economic behavior (Adda et al., 2022; Cortes, 2004; Dustmann, 1993, 1999), with important implications for not only the host and home countries but also for the immigrants themselves (Barsbai et al., 2017; Colas and Sachs, 2023; Dustmann and Frattini, 2014; Foged and Peri, 2016; Mobarak et al., 2023).

As a result, previous research has studied extensively how individual characteristics (Bijwaard and Wahba, 2014; Dustmann, 1993, 1997; Gibson and McKenzie, 2011; Nekby, 2006) and host country economic and political conditions (de Coulon et al., 2016; Elsayed, 2018; Gould and Klor, 2016; Schilling and Stillman, 2024) affect immigrant's return intentions and labour market behavior. However, there is little evidence on the role of home country conditions. The few existing studies focused on economic shocks (Nekoei, 2013; Yang, 2006), but neglected the role of violence and safety conditions at origin. As the world experiences an upsurge in civil conflicts, wars and terrorism, understanding immigrants' behavioral responses to the unfolding of these events in their home countries is crucial.

In this paper, we study whether violent events in the home country affect return intentions and, in turn, the economic behavior of immigrants abroad. The underlying mechanism is that violent events in the home country affect the perception of security and hence work as shocks to immigrants' location preferences by increasing the attractiveness of the destination country relative to the home country. Our findings reveal that a negative shock to the safety conditions in the home country increases immigrants' desire to stay abroad permanently. For unemployed immigrants, the occurrence of violent events in their origin country shortens their employment duration but also worsens their employment outcomes.<sup>2</sup>

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<sup>1</sup>According to an OECD (2008) report on migration, approximately 20 to 50 percent of immigrants in OECD countries leave the host country five years after their arrival.

<sup>2</sup>While return plans can change over the course of an individual migration spell and may deviate from the actual date of the return (Dustmann and Görlach, 2016; Chabé-Ferret et al., 2018), we are interested in the effect on contemporaneous re-employment decisions, which are based on current return plans.

In the empirical analysis, we proxy changes in safety conditions in the home country with the occurrence of terrorist attacks for two reasons. First, the frequency and size (e.g., damages and victims) of terrorist attacks are largely unpredictable. Second, previous research has shown that terrorist attacks are highly correlated with increased levels of uncertainty and reduced feelings of safety ([Brodeur, 2018](#)). The data on terrorist attacks come from the Global Terror Database (GTD), which is a large dataset containing information on almost 200,000 terrorist events that have occurred worldwide from 1970 to 2018. Events are recorded daily, and the geographical location where the events took place is highly precise.

In contrast to previous studies that have considered the absolute number of casualties from terror events (see e.g., [Akay et al., 2020](#); [Keita and Schewe, 2021](#); [Sønderskov et al., 2021](#)), we introduce a relative measure of violence that accounts for country-specific trends. This novel measure rests on the idea that individuals coming from countries with a high number of terrorist events in the recent past have a different reference point than individuals from countries where terrorist attacks rarely occur.

To estimate the effect of terrorist events on return intentions, we combine the GTD data with the German Socioeconomic Panel (GSOEP). The GSOEP is a large-scale survey representative of the German population. It has been conducted annually since 1984 and includes a wide variety of individual-level information. Crucial for our analysis, it also collects information on nationality, return intentions and survey dates.

The identification strategy relies on the quasi-random occurrence of the date of terrorist events at the origin relative to the timing of the GSOEP interviews and the characteristics of the respondents. We find that immigrants interviewed immediately after terrorist attacks are 12.0 percentage points more likely to declare that they want to stay in Germany permanently. These effects persist up to 3 months after the event and are particularly strong among immigrants who are less integrated (e.g., scarce German knowledge) and have close family members in the home country. Risk-averse individuals are also more likely to revise their return intentions, while there is no difference between employed and unemployed immigrants.

The key identifying assumption is that terrorist events in home countries did not

interfere with the survey implementation. To validate our empirical design, we show that neither the number of interviews nor the characteristics of survey respondents differ around terrorist events. Our baseline estimates are not driven by any specific country or survey year and are robust to alternative definitions of terror events and bandwidths. Finally, we provide two pieces of evidence to ensure that we are not capturing any statistical artifacts in the data. First, we assign random dates to terror incidents (placebo events) and observe no impact on the intention to stay. Second, we show that home country terror events, such as concerns about crime and the environment in Germany, do not affect placebo outcomes.

In the second part of the analysis, we look at the effect of terrorist events on labor market outcomes. As changes to investments in human capital and career choices take time to materialize, we focus on the job search behavior of unemployed immigrants, which is an outcome that can react quickly to changes in individual circumstances. We proxy job search behavior with unemployment duration.

We argue that, by leading to an update in immigrants' return intentions, violent events in the home country may affect job searches and reservation wages among unemployed immigrants. However, because violent events can affect these variables jointly, they will have ambiguous consequences for unemployment duration. On the one hand, unemployed immigrants may fear having to return to their home country; thus, they increase their job search activity and lower their reservation wages to find employment faster, thereby potentially trading off longer-term job stability and quality. On the other hand, terror events in the home country may increase immigrants' length of unemployment either because they start to look longer for positions with higher-paying firms and more stable jobs or because of their lower mental health level.

To accurately measure the time to registration as unemployed and to reemployment, we rely on German administrative data (IEB), using 40 percent random sample of the immigrant population in the social security records between 2000 and 2018. This empirical strategy mirrors, as closely as possible, the one used to estimate the effects of terror events on return intentions. A difference between the two settings is that return intentions are measured on a specific day, while unemployment duration can span several days. Hence, we define our main outcomes of interest as the likelihood

of registering as unemployed and finding employment *within three months*. We then compare these labor market outcomes between immigrants who enter unemployment when terrorist events occur in their home countries (treated) and immigrants from the same home country who enter unemployment three months earlier when no terror event occurred (control).

Our results show that immigrants who enter unemployment in a month when terror events occurred in their home country are 1.8 percentage points more likely to be employed within three months than individuals from the same home country who entered unemployment three months before the relevant terror event. The effect on employment duration is largely driven by immigrants' quicker registration as unemployed. These results are robust to placebo treatment assignments and alternative definitions of terrorism. For those immigrants who find a job within three months, we further look at the type of jobs and the firms to which they match. Immigrants who enter unemployment during unstable times in their home country have lower hourly wages and are 6.2 percentage points more likely to change from full-time employment to part-time employment than are immigrants who enter unemployment under stable conditions. We find no statistically significant difference in the likelihood of changing occupation or industry.

Turning to firm characteristics, immigrants who enter unemployment when a terror event occurs in their home country are 4.0 percentage points less likely to change to a firm with a higher wage premium and 6.2 percentage points less likely to change to a firm with a higher share of highly skilled workers than are immigrants who enter unemployment under stable conditions. These results suggest that immigrants who enter unemployment in a month with high levels of violence at home trade immediate job security for lower earnings, unstable jobs and less-productive firms.

We contribute to the literature in three ways. First, we provide empirical evidence on the link between return intentions and safety conditions in the home country. Given the importance of temporary migrations, several studies have analyzed the individual determinants of return intentions (see [Bijwaard and Wahba, 2014](#); [Dustmann and Görlach, 2016](#)). Fewer studies have examined the country-level determinants of return migration, showing that economic conditions in the home country (e.g., GDP, exchange rates) matter for the well-being of immigrants abroad ([Akay et al., 2017](#))



and may determine migration flows and the amount of remittances (Nekoei, 2013; Yang, 2006). Closest to our study, Steinhardt (2018) shows that xenophobic violence in the host country affects immigrants' return intentions; Alrababah et al. (2023) use a conjoint experiment to show hypothetical scenarios to Syrian refugees in Lebanon and evaluates under which conditions they would return to the homeland; and Beaman et al. (2022) show descriptively that a reduction in conflict intensity in Syria increases the likelihood of refugees returning to Syria. We are the first to provide quasi-experimental evidence that violence in the home country has a causal effect on the return plans of immigrants. Additionally, we also show that our results can be generalized to all origin countries and immigrants with diverse migration statuses.

Second, we contribute to the literature on the effects of external shocks on the labor market integration of immigrants. Previous studies have shown that terrorism in the host country affects immigrants' integration. For example, Gould and Klor (2016) find that the 9/11 attacks had long-lasting effects on the integration of Muslim immigrants, while Brodeur and Wright (2019) show that the same events also reduced asylum approval rates. Steinhardt (2018) finds that xenophobic violence by native Germans reduces Turkish immigrants' investments in language skills. We show that terrorist events in the origin country affect not only return intentions but also the labor market behaviour of immigrants. While we cannot directly link the effect of terror on return intentions to its effect on immigrants' labor market behaviour, we show that terror events that create a plausible shock to return intentions also affect the search behaviour of immigrants.

Third, despite using terrorism as a proxy for sociopolitical turmoil and violence in the home country, our paper is related to the literature on the consequences of terrorism for individuals. Several studies have found that terrorism in the location of residency affects political opinions and voting behaviors (Peri et al., 2020) and reduces the well-being of individuals (Akay et al., 2020; Clark et al., 2020). Close to our paper, Sønderskov et al. (2021); Keita and Schewe (2021) show that terrorism in the origin country affects refugees' mental well-being in the host country. Using comparable research designs and a relative measure of terrorism intensity, We show that terrorist attacks in the home country affect immigrants' return plans and labor market behavior.

The rest of the paper is organized as follows. Section 2 describes the data. Section 2 analyses terror and return intentions and Section 4 analyses terror and labor market behavior. Section 5 concludes.

## 2 Data

**German Socio-Economic Panel:** To analyze the impact of violent events on the intended length of stay in Germany, we use the full dataset from the German Socioeconomic Panel (GSOEP) for the years 2000 to 2018. The GSOEP is a large-scale yearly household survey that is representative of the German population.<sup>3</sup> The dataset contains individual and family information on various topics, including education, work-life balance, consumption and more behavioural and attitudinal characteristics. Crucial to our analysis, many immigrants are interviewed each year. If they have a migration background, the respondents are asked migration-specific questions, such as their country of origin, presence of family abroad, German knowledge, and return intentions. The GSOEP has been widely used to study the socioeconomic integration of immigrants and, specifically, to investigate return migration intentions (see e.g. [Dustmann and Görlach, 2016](#); [Bauer and Sinning, 2011](#)). In our setting, we focus on intentions to stay in Germany rather than actual return migration for two reasons. First, return intentions react immediately to violent events occurring in the home country, while actual returns may take time to materialize. Second, economic behavior in the host country is based on contemporaneous intentions to stay. Nonetheless, previous research has shown that return intentions are closely related to realized migration patterns ([Adda et al., 2022](#); [Sallam, 2023](#)).

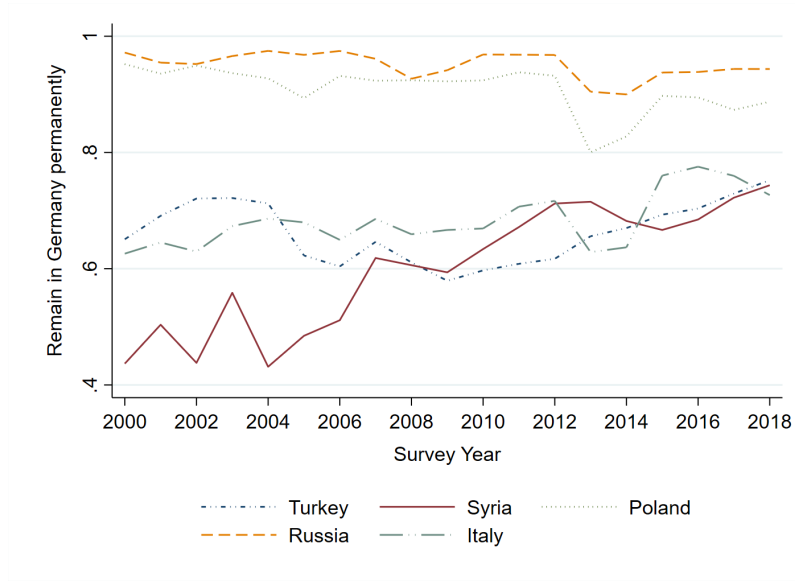
Figure 1 plots the share of immigrants who intend to remain in Germany permanently for the largest nationality groups contained in the GSOEP. While Eastern European immigrants (some of who are ethnic Germans) tend to have stable return migration intentions, for other nationality groups, the share of immigrants who want to settle permanently has increased over time.<sup>4</sup>

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<sup>3</sup>For a complete description of the data, please refer to [Goebel et al. \(2019\)](#)

<sup>4</sup>The increase in intention to stay may be due to compositional changes and panel attrition. In Appendix A.1, we show the share of immigrants in the GSOEP over time and discuss the different waves of migration to Germany in more detail.

Figure 1: Remain in Germany permanently, main groups



Notes: Figure 1 displays the share of immigrants who intend to remain in Germany permanently. Shares are computed for each survey year (from 2000 to 2018) only for the 5 largest immigrant nationality groups. Source: GSOEP

In Table A.2 in Appendix A.1, we show descriptive statistics of the migrant population in the GSOEP. A very high share of the immigrants in Germany over the period under analysis report having only a lower secondary education or below. While the mean number of full-time employees over the 2000-2018 period is only 0.34, these results are driven by the large inflows that refugees in Germany have hosted over the years and by the low labor force participation rate among female immigrants. Refugee employment over the first two to three years after migration is relatively low; however, it then catches up with the remaining migrant population. Finally, most immigrants want to remain in Germany for many years.

**IEB social security records** To analyze the effect of terrorist events on labor market outcomes, we rely on the social security records, *Integrated Employment Biographies* (IEB), dataset for a random drawing of 40 percent of the full population of immigrants in the German labor market. The IEB dataset is provided by the Institute of Employment Research (IAB) of the German Federal Employment Agency.<sup>5</sup> The dataset includes detailed daily administrative longitudinal information on nationality, occupation, educational background, industry, employment status, and earnings

<sup>5</sup>For the description of a 2-percent random sample from the IEB, the *Sample of Integrated labor Market Biographies* (SIAB), see Antoni et al. (2019).

records of all individuals subject to social security in Germany. Crucial for our empirical strategy, we have information on the exact date when immigrants register for unemployment, their occupation, their wages and the characteristics of the firms in which they are employed.

**Global terror database** We proxy safety conditions in the home country with the occurrence of terrorist attacks. Data on terrorist attacks worldwide come from the Global Terror Database (GTD) (LaFree and Dugan, 2007). The GTD data are collected daily using both human and machine intelligence methods.<sup>6</sup> The data collection procedure allows to identify unique attacks, record the details of each event (e.g., date, location, and number killed), and update the records of previously recorded events as new information becomes available (The Global Terrorism Database, 2019).

In Figure B.1 in Appendix B, we present descriptive statistics on the terror events from the GTD database. The left-hand-side panels of Figure B.1 show the monthly number of terror events between 2000 and 2018 for the five countries of origin with the largest immigrant population in Germany: Turkey, Syria, Russia, Poland, and Kazakhstan. The number of events strongly varies over time and across countries. For example, Syria has experienced a spike in terror events in the last five years, but these events are more evenly distributed in other countries. Additionally, while Poland and Kazakhstan have experienced only a few scattered events, Turkey has experienced frequent events since the 2000s.

In contrast to previous papers that have used the absolute number of casualties (see, Akay et al., 2020; Keita and Schewe, 2021; Sønderskov et al., 2021), we introduce a relative measure of terror that accounts for country-specific terrorism trends. This measure is based on the idea that individuals coming from countries with a high number of terrorist attacks in the recent past have a different reference point than individuals coming from countries that have rarely experienced terrorist attacks.<sup>7</sup> One terrorist event in a country such as France in March 2016 is likely to create a greater shock to the perception of security and a greater reaction among French immigrants abroad than one terrorist event in Syria, for instance, which was experiencing a

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<sup>6</sup>First, millions of articles from newspapers worldwide are processed daily to find and document all terrorist events. Natural language processing, named entity extraction, and machine learning models are used to identify and organize news articles that include information about terrorist attacks.

<sup>7</sup>Individuals coming from countries with a high number of terrorist events might be more accustomed to this type of violence; hence, one isolated terror attack might have little impact on their intention to stay.

period of intense turmoil in 2016.

For each month-year-country of origin combination, a terror event is defined as follows:

- *Relevant* if there is at least one more terror attack in a given month than the past three-year average.<sup>8</sup>
- *Isolated* if no other relevant events occurred in the previous 3 months or in the following 3 months.<sup>9</sup>

We formally define a relevant and isolated terror event in Appendix C. In all analyses, we use only relevant and isolated terror events, which are displayed in the right-hand side panels of Figure B.1 in Appendix B.<sup>10</sup> Additionally, we exploit available information on the number of deaths to measure immigrants' response to the intensity of terrorist events. For readability matters, we will refer to relevant and isolated terror events simply as relevant terror events.

### 3 Unsafe home countries and immigrants' return intentions

In this part of the analysis, we test whether a decrease in safety conditions (e.g., a terrorist event) in the home country positively affects immigrants' intention to stay in Germany. We hypothesize the following mechanism: a violent event in the home country works as a shock to immigrants' location preferences, thereby increasing the attractiveness of the host country relative to the home country, which in turn increases the desire to either remain permanently in the host country or to delay the timing of return migration.

#### 3.1 Empirical strategy

To estimate the effects of terrorist attacks on the intention to remain in Germany, we exploit the variation induced by the timing of interviews in the GSOEP and the

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<sup>8</sup>Alternatively, we use the past four-year and five-year averages. Our results do not change greatly with either definition and hence, for most of our analysis, we will consider the past three-year average as the standard reference period for all respondents.

<sup>9</sup>Alternatively, we use smaller bandwidths, such as 1 and 2 months. The main results do not change with the different bandwidths. The definition of an isolated event is similar to Graeber and Schikora (2021).

<sup>10</sup>Table B.1 in Appendix B additionally shows the number of relevant and isolated terror events per country and the mean number of monthly terror attacks per relevant and isolated terror event.

timing of terrorist events in the home country.<sup>11</sup> We estimate the following model:

$$I_{i,o,y,t,m,f} = \sum_{t=-P}^T \beta_t Time_{o,y,t} + \delta X_{i,y} + \mu_{o,y} + \phi_{m,y} + \lambda_f + \epsilon_{i,o,y,t,m,f} \quad (1)$$

where  $I_{i,o,y,t,m,f}$  measures the return intentions of individual  $i$  from country of origin  $o$ , interviewed in year  $y$ , month  $m$  and week  $t$  and residing in federal state  $f$ .  $Time_{o,y,t}$ 's are dummies identifying periods around the event where  $t$  denotes weeks since a month with a relevant terror event (e.g.,  $t = -2$  for those interviewed 2 weeks before the event).<sup>12</sup> The coefficients  $\beta_1, \dots, \beta_T$  identify dynamic treatment effects,  $t = -2$  is the baseline omitted period.  $\phi_{m,y}$  are interview month times year fixed effects,  $\mu_{o,y}$  are country of origin times year fixed effects, and  $\lambda_f$  are federal state of residence fixed effects.  $X_{i,y}$  is a set of individual controls that includes age, gender years since migration, years since migration squared, marital status, children, and educational achievement.

Including country-of-origin times year fixed effects ( $\mu_{o,y}$ ) allows us to compare outcomes for immigrants from the same country of origin who were interviewed in the same year either right before or right after the relevant and isolated terror event. The year and month of the interview fixed effects ( $\phi_{m,y}$ ) allow us to control for month-year events that affect individuals from all origin countries. Standard errors are clustered at the country-year-month level. The estimated coefficient averages the effects across countries of origin and terrorist events.

Our main specification includes only immigrants interviewed within a 90-day bandwidth from the relevant terror event. Using *isolated* terror events within a 90-day bandwidth ensures that neither the control nor treatment group is treated by any other relevant terror event based on a 90-day criterion. In Section 3.3, we show the results using smaller bandwidths, such as 30 and 60 days. The pre- and post treatment periods will vary according to the bandwidth used to classify a relevant event as isolated.

<sup>11</sup>This design has been recently used to study the effect of terrorism on well-being (Akay et al., 2020; Clark et al., 2020; Graeber and Schikora, 2021) and political opinions (Peri et al., 2020), as well as the effect of football victories in international competitions on national identity sentiments (Depetris-Chauvin et al., 2020)

<sup>12</sup>Since the definition of a relevant terror event is based on a total number of terror attacks in a month, we exclude the month when a relevant event occurred in all our regressions and use only the days before as the control group and the days after as the treatment group. For example, if in March 2020 there is a relevant event,  $t = -2$  refers to the last two weeks of February and  $t = 2$  to the first two weeks of April.

To summarize the average treatment effect over all periods, we also estimate:

$$I_{i,o,y,m,f} = \beta PostError_{i,o,y,m} + \delta X_{i,y} + \mu_{o,y} + \phi_{y,m} + \lambda_f + \epsilon_{i,o,y,m,f} \quad (2)$$

where the time dummies are substituted with the indicator  $PostError_{i,o,y,m}$ , which takes the value of 1 if respondent  $i$  from the country of origin  $o$  is interviewed within 90 days after a relevant terror event and 0 if a respondent is interviewed within 90 days before that same event.

Our identification strategy relies on the quasi-random occurrence of terrorist events relative to the exact time at which immigrants were interviewed. Therefore, our identifying assumption is that the occurrence of terror events in the home countries did not interfere with the implementation of the survey. While it is unlikely that the organization of the survey changes in response to terror events, it may happen that immigrants who are more attached to their home countries refuse to be interviewed after such an event. This nonrandom selection may bias our results upward toward the intention to remain in Germany. To test our assumption, we first plot in Figure D.2 in Appendix D.1 the share of interviews around each country-specific terror event used in our main estimations.<sup>13</sup> Figure D.2 shows that there is no evidence of a correlation between the implementation of the survey and the occurrence of events.

As a second test, we show that the characteristics of the respondents do not depend on whether they were interviewed before or after a terror event. We regress the treatment status (i.e., being interviewed after a terrorist event in the home country) on each individual characteristic and include year times country of origin fixed effects, year times month of interview fixed effects, and federal state of residency fixed effects. The results are displayed in Figure D.1 in Appendix D.1. There seems to be no difference between the treatment and control groups across all included characteristics.

### 3.2 Main results

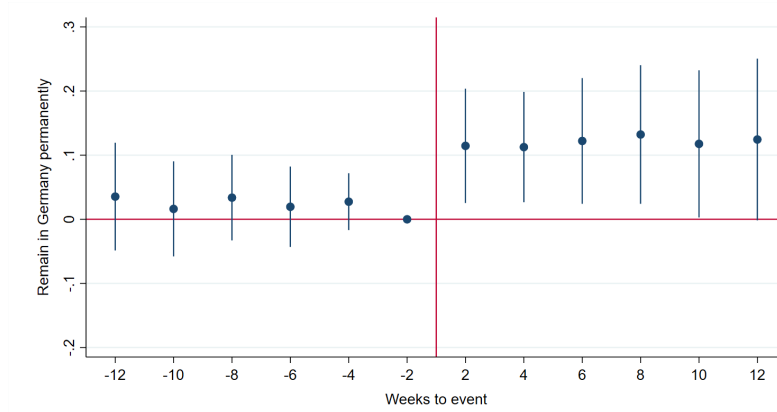
In this section, we present our main results for the effect of violence in the home country on migrants' intentions to remain in Germany. We first show graphical

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<sup>13</sup>For a given country-specific event, we consider: i) the total number of interviews in the 90 days before and after the event and; ii) the number of interviews at 90, 60, 30 days before and after the event and at 0. The ratio in the x-axis represents the number of interviews at each point relative to the total number of interviews, e.g., ii) / (i).

evidence of how intentions to remain in Germany evolve in the weeks around terror events when using a 90-day bandwidth and considering an event to be relevant if the number of events in a given month is higher than the past three-year average. Figure 2 plots the event study coefficients, using the two weeks before the event as a baseline. The plot shows that the coefficients for individuals interviewed before terrorist attacks are not significantly different from those for individuals interviewed in the weeks before the event, while the coefficients are significantly positive for immigrants interviewed after the event. Moreover, the plots show that the increase in intentions to remain in Germany lasts up to 12 weeks after the event.

Figure 2: Event study: terror events and intention to remain in Germany, 90-day bandwidth



Notes: Figure 2 displays the event study plot from the estimation of Equation 1, where the outcome is "Remain permanently in Germany". The regression considers a 90-day bandwidth. The bars indicate 95-percent confidence intervals.

In Table 1, we report the results based on Equation 2 using a bandwidth of 90 days around the event and considering an event to be relevant if the number of events in a given month is higher than the past three-year average. Column (1) uses only the baseline fixed effects; Column (2) adds gender, age, years since migration, and years since migration squared to the controls in Column (1); Column (3) adds marital status and the presence of children to the controls in Column (2); and Column (4) adds educational achievement to the controls in Column (3). We estimate that a terror event in the home country leads to a 12.2- to 12.5-percentage-point increase in the intention to remain in Germany. This corresponds to an increase of 10 per cent relative to the mean value of the outcome variable (0.81). Overall, the results suggest that terrorist events in the home country positively affect the intention to



remain in the host country (Germany) permanently. In Section 4, we test whether changes in the intention to remain in Germany affect the integration of immigrants in the labor market.

Table 1: Terror events and intentions to remain in Germany, 90-day 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
Mean return intentions	0.798	0.798	0.798	0.798
Origin country FE x Year FE	Yes	Yes	Yes	Yes
Year FE x 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: Table 1 displays the coefficients from the estimation of Equation 2 where the outcome is "Remain permanently in Germany". All the results use a 90-day bandwidth. Individual controls include age, sex, years since migration and its square, marital status, educational achievement, and children.

Given our definition of treatment, the coefficients reported in Table 1 summarize the effect of being interviewed within the 90 days following a month in which the level of unsafety in the home country is higher than the past three-year average. These effects capture the response at the extensive margin. In Table 2, we explore whether differences in the intensity of terrorist events matter for the intention to remain permanently in Germany. Therefore, we interact the *PostTerror* dummy in Equation 2 with a dummy variable that equals 0 if no or less than  $k$  individuals were killed and equals one if  $k$  or more individuals were killed, for  $k=10, 30, 50$ . The results show that the intensive margin also matters. The greater the number of people killed is, the stronger the effect of terrorist events on return intentions is.

Table 2: Intensity of terror events and intentions to remain in Germany, 90-day bandwidth

	Higher than average of last 3 years		
	k=10	k=30	k=50
	(1)	(2)	(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 FE x Year FE	Yes	Yes	Yes
Month FE x Year FE	Yes	Yes	Yes
State of residency FE	Yes	Yes	Yes
Individual controls	Yes	Yes	Yes

Standard errors in parenthesis clustered at the country x year x month level, \*p<.1; \*\*p<.05; \*\*\*p<.01  
Notes: Table 2 displays the coefficients from the estimation of Equation 2 interacted with a dummy variable that equals 0 if no or less than  $k$  individuals were killed and equals 1 if  $k$  or more individuals were killed.  $k$  denotes the number of individuals killed. All the results use a 90-day bandwidth. Individual controls include age, sex, years since migration and its square, marital status, educational achievement, and children.

Additionally, we ask whether the response to terrorist events in the home country is the same for immigrants from countries with a durable conflict and those from politically stable countries. Table B.1 in Appendix B shows that there must be a significant variation in the mean number of terror attacks in a given month for it to be considered a month with a relevant and isolated event. Note that this table does not necessarily include all periods with relevant events but only those that occurred in isolated periods, as explained in Section 3.1. We can see that while in Belgium or Norway, 2 terrorist attacks in one month are enough for this month to be considered relevant, in Colombia, 17 attacks are necessary, while in Iraq 285.

To study this question in more detail, we use the Political Stability Index from the World Bank<sup>14</sup> to rank countries based on their level of political stability. We consider the ranking in the year before the relevant and isolated event occurred and the mean ranking of the three years prior to the relevant and isolated event.<sup>15</sup> Based on these two measures, countries of origin are categorized as follows: i) low political stability if the ranking is less than or equal to 25; ii) moderate political stability if the ranking is greater than 25 and less than or equal to 75; and iii) high political stability if the ranking is greater than 75.<sup>16</sup> The results are shown in Table 3 Columns (1) and (2) and exhibit no particular difference between countries with different political stability rankings. For instance, in Column (2), individuals interviewed after a terror event occurred in a country with a low level of political stability are 13.4 percentage points more likely to wish to remain in Germany permanently than individuals who were interviewed before the terror event. This figure compares to the 11.5 percentage points and 13.5 percentage points for individuals interviewed after a terror event occurring in a country with middle and high levels of political stability, respectively.

In Table D.1 in Appendix D.2.1 we use an alternative approach to measure political instability by taking the mean monthly number of terror attacks in the past three years used to classify terror events as relevant. The results are comparable.

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<sup>14</sup>The Political Stability and Absence of Violence/Terrorism Index is built by the World Bank (Worldwide Governance Indicators) using information from different sources. The index measures perceptions of the likelihood of political instability and/or politically motivated violence, including terrorism.

<sup>15</sup>This is to be consistent with the individual reference point used to consider an event as relevant: if, in a given month, there was at least one more terror event than the past country-specific three-year average

<sup>16</sup>The distribution of the index in our particular sample is displayed in Table D.1 in the Appendix

Table 3: Overall political stability, terror events and intentions to remain in Germany, 90-day bandwidth

	Political stability index	
	Previous year	Mean previous 3 years
	(1)	(2)
Post-Terror $\times$ Pol. Stab. $\leq 25$	0.146*** (0.040)	0.134*** (0.039)
Post-Terror $\times$ Pol. Stab. [25-75]	0.109*** (0.036)	0.115*** (0.036)
Post-Terror $\times$ Pol. Stab. $> 75$	0.136*** (0.044)	0.135*** (0.042)
Observations	6604	6604
Origin country FE $\times$ Year FE	Yes	Yes
Month FE $\times$ Year FE	Yes	Yes
State of residency FE	Yes	Yes
Individual controls	Yes	Yes

Standard errors in parenthesis clustered at the country  $\times$  year  $\times$  month level, \* $p < .1$ ; \*\* $p < .05$ ; \*\*\* $p < .01$   
Notes: Table 3 displays the coefficients from the estimation of Equation 2 interacted with a dummy variable proxying for political stability. All results use a 90-day bandwidth. Individual controls include age, sex, years since migration and its square, marital status, educational achievement, and children.

### 3.3 Placebo tests and robustness checks

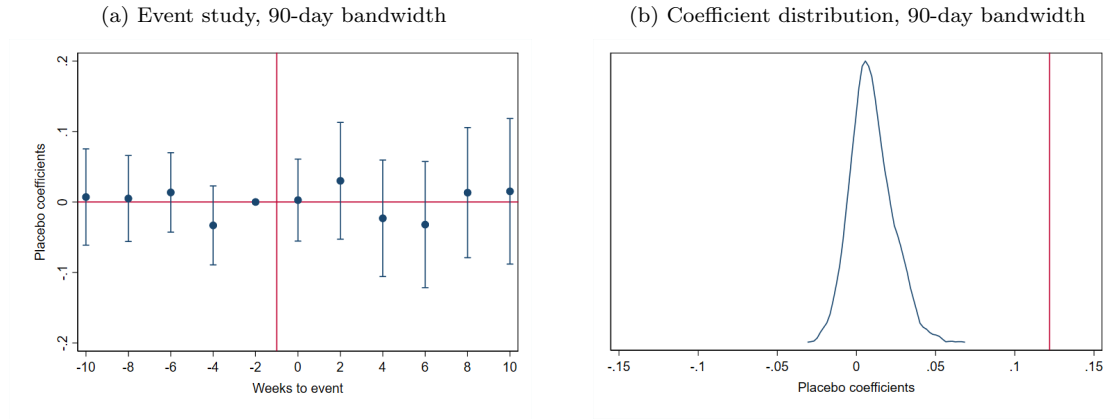
In the previous section, we showed that terrorist acts in home countries positively impact immigrants' intention to remain in Germany. In this section, we test the stability of our results using both placebo tests and robustness checks.

**Changing bandwidth or reference point** We start by testing whether the main results are sensitive to the bandwidth around the event or the average bandwidth above which we consider a terror event to be relevant. In Table D.3 in Appendix D.4, we display the estimated coefficients when reducing the bandwidth from 90 days (i.e., the baseline bandwidth) to 60 days and then 30 days around the terror event and when considering if, in a given month, there is at least one more terror event than the past country-specific three-year average (i.e., the baseline average), four-year average, or five-year average. The estimated coefficients remain positive and significant, and we see that the closer we are to the terror event, the greater the effect is on the intention to remain permanently in Germany.

**Placebo terror event date** As a placebo test, we assign a random date to each relevant terror event for each country of origin and estimate Equation 1. The event study resulting from this exercise is displayed in Figure 3a and shows that there is no effect of the placebo terror events on the intention to remain in Germany

permanently. We replicate this procedure 300 times and estimate Equation 2 to obtain the coefficients of the placebo terror events. The distribution of the coefficients is shown in Figure 3b and is concentrated around zero, which is much greater than the 0.12 estimated in Table 1 using the true dates of the relevant terrorist events.

Figure 3: Placebo tests using random terror dates



Notes: Panel 3a displays the coefficients from the estimation of Equation 1 using placebo terror events. Panel 3b displays the distribution of the coefficients from the 300 estimations of Equation 2 using placebo terror events with different random dates. All regressions consider an event as relevant if the number of terror events in a month is above the past three-year average. The bars indicate 95-percent confidence intervals.

**Placebo outcomes** As a second placebo test, we consider the effect of relevant terror events in the home country on outcomes that, in principle, should not be affected by such events. These outcomes include worries about the future of the European Union, crime in Germany, economic development, and the environment.<sup>17</sup> As some of these variables rely on questions that are not asked in all survey waves, our sample differs with respect to the outcome. Table 4 shows the coefficients of estimating Equation 2 using these alternative outcomes. We see no significant effect of relevant terror events in the home country on these outcomes.

<sup>17</sup>For each of these worries, we create a dummy variable that equals one if the respondent replied to be "very worried" or "worried" and zero otherwise

Table 4: Terror events and placebo outcomes, 90-day bandwidth

Worries about	Higher than average of last 3 years			
	Future of EU	Crime in Ger.	Econ. Develop.	Environment
	(1)	(2)	(3)	(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 FE x Year FE	Yes	Yes	Yes	Yes
Month FE x Year FE,	Yes	Yes	Yes	Yes
State of residency FE	Yes	Yes	Yes	Yes
Individual controls	Yes	Yes	Yes	Yes

Standard errors in parenthesis clustered at the country x year x month level, \*p<.1; \*\*p<.05; \*\*\*p<.01

Notes: Table 4 displays the coefficients from the estimation of Equation 2 where the outcome is "Remain permanently in Germany". All the results consider a 90-day bandwidth. Individual controls include age, sex, years since migration and its square, marital status, educational achievement and children.

**Excluding a year or a country** We test whether our results are driven by specific countries or survey years. We run the baseline regression excluding one survey year at a time and repeat the same procedure while excluding countries of origin at a time. Panel a) of Figure D.4 in Appendix D.4 shows the estimated coefficients for each regression in which a survey year is excluded, while Panel b) shows the estimated coefficients for each regression in which a country of origin is excluded. The y-axis displays the excluded survey year or country of origin. Overall, our results are stable throughout these robustness tests.

### 3.4 Heterogeneous effects

In this subsection, we investigate whether the effect of terrorist events on the intention to remain in Germany varies with the level of integration, visa group, employment status, years since migration, location of closer family members at the time of the event and risk aversion. First, we test the hypothesis that the level of integration in Germany mediates the importance of terrorist acts in the home countries in determining the willingness to remain in Germany. If immigrants are highly integrated into German society, they are less likely to pay attention to events occurring in their home countries.

We proxy the level of integration by the self-reported level of oral German.<sup>18</sup> and run separate regressions for each level. The coefficients are displayed in Figure 4a and show that for immigrants with a very good level of integration in Germany (i.e., highly integrated in Germany), the effect of terrorist events on the intention to stay

<sup>18</sup>Previous research has shown that linguistic integration strongly correlates with social, political and economic integration in the host country (Harder et al., 2018).

is close to zero. In contrast, the effect is similar to our baseline results for immigrants with good or poor knowledge of German.

We also consider how terrorist events in the home country might affect individuals differently depending on the location of their close family members (e.g., parents, spouses, children, grandparents and siblings). In principle, we expect that the return intentions of individuals with close family members in their home country are more likely to be affected by events in their home country. The reason is that these individuals are less likely to wish to remain in Germany permanently than individuals who already have their family in Germany. After experiencing sociopolitical events in their home country, they are more likely not only to intend to remain in Germany permanently but also to wish to bring their remaining family to Germany. Indeed, Figure 4b shows that individuals with close family living abroad are more likely to revise their intentions to remain in Germany than are those with close family living in Germany.

In Figure 4c, we allocate individuals into groups based on the number of years since arriving in Germany. We can see that the effect is more pronounced among recent arrivals (0-4 years) and immigrants living in Germany for 15 years or more. These could be individuals who are close to retirement and initially planned to return to their home countries but who have updated their return intentions following a terror event in their country of origin.<sup>19</sup> Figure 4d compares individuals based on their entry visas to Germany. There are no significant differences between individuals who enter Germany as EU nationals,<sup>20</sup> asylum seekers/refugees or members of another group.

Critical to our analysis in Section 4, in Figure 4e, we look at the heterogeneous effects of terrorist events by employment status at the time of the interview. The results show that there is no significant difference between employed and unemployed individuals.

Finally, in Figure 4f, we look at the heterogeneous effects of terror events by risk aversion. Risk-averse individuals are more likely to place greater value on physical security. An increase in the incidence of terror events in the home country, for which

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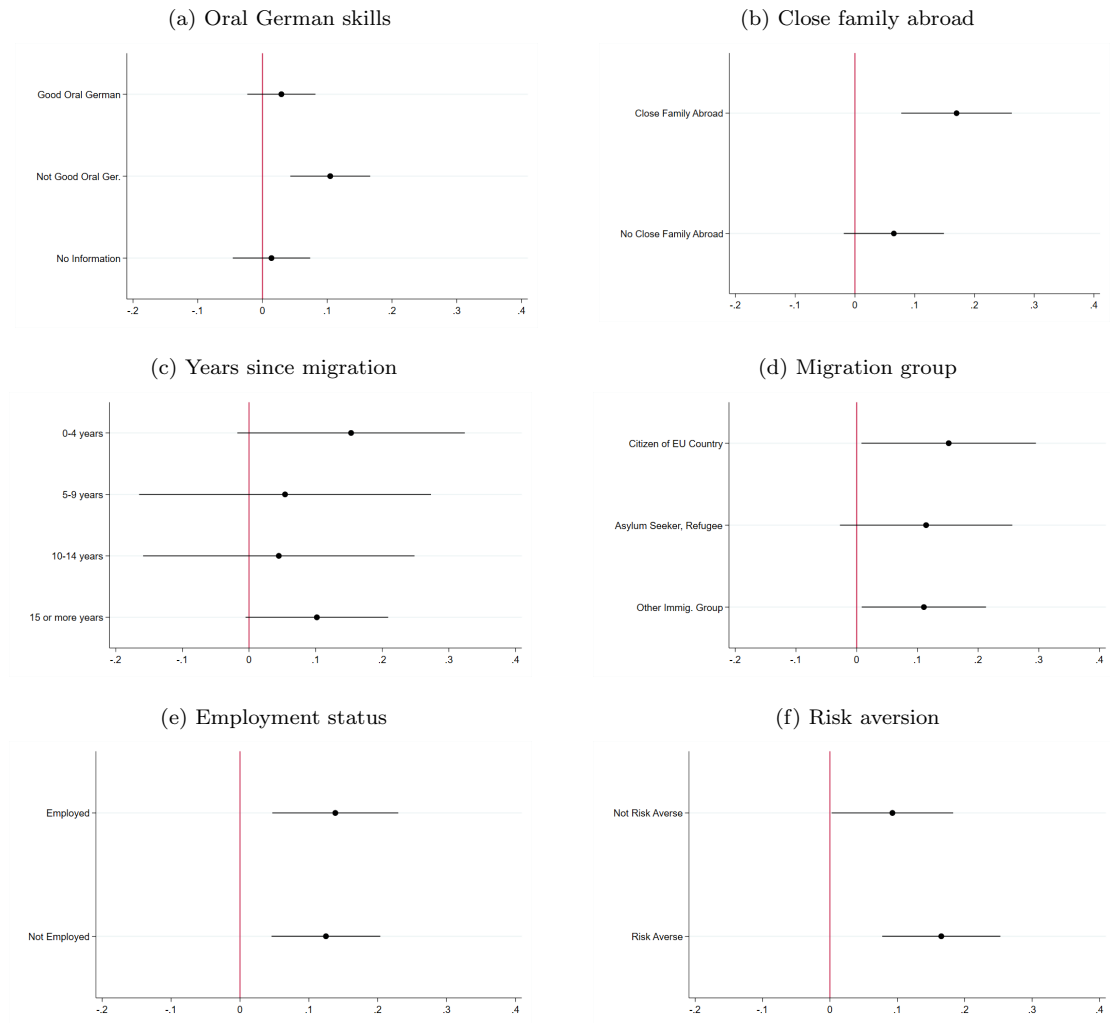
<sup>19</sup>The mean outcome in the control group is 0.844 (0-4 years), 0.789 (5-9 years), 0.834 (10-14 years) and 0.786 (more than 15 years).

<sup>20</sup>We included German descendants from Eastern Europe in this group since there was a low share of individuals entering with this Visa.

the exact location and timing are unpredictable, creates a state of uncertainty and decreases the safety level. Hence, we expect risk-averse individuals to react more to changes in the sociopolitical conditions of their home countries. The results in Figure 4f show this is true.

In Figure D.3 in Appendix D.3, we show the heterogeneous effects by the chosen language of the newspaper read by the respondent (as an alternative measure to oral German), broad region of origin, gender and educational achievement.

Figure 4: Heterogeneity analysis, 90-day bandwidth



Notes: Each panel displays the coefficients from the estimation of Equation 2 for each variable level in the graph title. All regressions consider an event as relevant if the number of terror events in a month is above the past three-year average and uses a 90-day bandwidth.

## 4 Unsafe home countries and immigrants' job search behavior

In the previous sections, we have shown that terrorist acts in home countries increase the desired length of stay in Germany. In this section, we theoretically link these results to the labor market behavior of immigrants and empirically investigate whether terrorist events affect the job search behavior of immigrants in the host labor market.

Previous research has used structural models to show that changes in the intended length of stay among immigrants can affect investments in human capital, which in turn leads to differences in earnings and career profiles ([Adda et al., 2022](#); [Bratsberg et al., 2002](#); [Cortes, 2004](#); [Dustmann, 1993, 1999](#)). Ideally, we want to test whether terrorist events affect immigrants' educational and labor market outcomes by changing relative location preferences and intentions to stay in the destination country. However, in a setting where terror events occur repeatedly, it is difficult to isolate the effect of each shock on immigrants' investments in human capital and career profiles. The primary reason is that completing an educational degree or changing one's career profile takes months, if not years, to materialize, and we can only effectively isolate short-term behavioral responses to violence-induced location preference shocks. The second reason is that we want to use an empirical strategy that resembles the one used for the analysis of return intentions described in [Section 4.1](#), so that we can link the effect of terrorist events on return intentions to their effect on labor market behavior. Therefore, we limit our analysis to a specific set of outcomes. Specifically, we concentrate on immigrants who became unemployed in a month when a relevant terror event occurred in their home country and compare their short-term job search behavior with that of workers from the same origin country who became unemployed only a few months earlier in quiet times.

As proxies for job search behavior, we use the following indicators: the time elapsed between the last day of employment and registration as unemployed at the Federal Employment Agency and the time elapsed between the last day of employment and the first day of new employment. These outcomes are only available in the German Social Security Data (IEB) database. Therefore, for the analysis, we use 40 percent



of all immigrants who were working in Germany between 2000 and 2018. Using the detailed information available in the IEB data, we additionally construct indicators that characterize the new job and firm after the period of unemployment. These indicators are the log daily wage, the change to/from part-time work, the change in occupation, and the characteristics of the new firm.

The a priori effect of a negative event in the home country on immigrants entering unemployment is ambiguous. On the one hand, violence in the home country may shorten the unemployment duration of immigrants in Germany. This could happen if, by lowering the expected utility in the home country, terror events result in lower reservation wages and greater job search effort in Germany.<sup>21</sup> Similarly, if the families of immigrants in the home country are directly affected by terrorist events, immigrants might also want to reenter employment faster to be able to send money to their relatives.

On the other hand, violence in the home country may increase the unemployment duration of immigrants in Germany. This could happen if terror events make immigrants more likely to pursue a long-term career in Germany. In this case, the present value of a job in Germany increases. Hence, while immigrants might increase their job search effort, they might also become more selective about the type of job they are willing to accept (e.g., more stability, higher future wage growth, better amenities or benefits), leading to an increase in the duration of unemployment. Additionally, the duration of unemployment may increase if violence in the home country decreases immigrants' mental well-being and if mental instability lowers their job search effort. Finally, terrorist events in the home country could also affect unemployment duration through the demand side. If employers discriminate against immigrants coming from "terrorist countries", then the latter will see their pool of job offers shrink and the length of their unemployment increase.<sup>22</sup> Nevertheless, in both cases, we expect to find that immigrants register faster as unemployed with the

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<sup>21</sup>If terror events affect the perception of security in the home country relative to the host country and lower return intentions, immigrants may reduce their reservation wage to match the wage they would earn back home. Similarly, immigrants' search efforts could increase because of an increased "fear" of having to leave Germany owing to unsustainable economic conditions or visa constraints. The economic conditions of unemployed individuals depend on savings and benefit eligibility, among other factors. The amount and duration of unemployment benefits depend on how long individuals have contributed and the salary they received before becoming unemployed. Furthermore, individuals with mini-jobs are not obliged to contribute to unemployment insurance, and self-employed individuals contribute voluntarily.

<sup>22</sup>Although natives in Germany are likely to be aware of terror events in countries with commercial or historical ties, it is unlikely that they are systematically aware of terror events in all home countries, ranging from Latin America to Asia. In Section 4.2, we provide supporting evidence that this is an unlikely channel

Employment Agency since this will increase their chances of being matched with an employer.

In this study, we argue that one of the main mechanisms through which terror events could affect labor market outcomes is through their impact on immigrants' return intentions. In Section 4.3, we resort to GSOEP responses on well-being and remittances to rule out alternative channels through which terrorist events at the time of origin could affect job search behaviors in the host labor market.

#### 4.1 Empirical strategy

In this section, we detail the empirical strategy that we use to investigate the impact of terrorism events on job search and employment outcomes, mirroring as closely as possible the empirical strategy used in Section 3 and summarized in Equation 2.<sup>23</sup>

While we are conceptually using the same identification strategy, a major difference between the two settings is how the outcome is measured. In Section 3, return intentions are measured on a specific day, while here, the time until registering as unemployed and the time until the first job can span several days. Hence, this approach will require modifying the definition of the outcomes, treatment group, and control group. The treatment group comprises immigrants who enter unemployment within a month of when a relevant terror event occurs in their home country (time = 0). We calculate the probability of registering as unemployed within one month (time = 1) or three months (time = 3) and the probability of entering employment within one month (time = 1) or three months (time = 3).<sup>24</sup> The control group consists of immigrants from the same country of origin who entered unemployment three months before the relevant terror event occurred in their home country (time = -3). Therefore, the relevant terror event (time = 0) does not affect the control group's probability of registering as unemployed within one month (time = -3) and three months (time = -1) and the probability of entering employment within one month (time = -3) and three months (time = -1).

We estimate the following model:

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<sup>23</sup>In Appendix E we compare in greater detail the two estimation strategies, highlighting similarities and differences

<sup>24</sup>Any outcome measure between time = 0 and time = 3 is unaffected by any other terror event besides the one occurring at time = 0

$$Y_{i,o,y,m,f} = \beta \text{PostTerror}_{i,o,y,m} + \delta X_{i,y} + \mu_{o,y} + \rho_{y,m} + \lambda_f + \epsilon_{i,o,y,m,f} \quad (3)$$

where  $Y_{i,o,y,m}$  is the labor market outcome of interest for individual  $i$  from country of origin  $o$ , entering unemployment in year  $y$  and month  $m$ , and residing in federal state  $f$ .  $\text{PostTerror}_{i,o,y,m}$  takes the value of 1 if respondent  $i$  from the country of origin  $o$  is interviewed in the month when a relevant terror event occurred in the home country, and 0 if a respondent is interviewed three months before that same event.  $\phi_{m,y}$  represents interview month times year fixed effects,  $\mu_{o,y}$  represents country of origin times year fixed effects, and  $\lambda_f$  represents federal state of residence fixed effects.  $X_{i,y}$  is a set of individual controls, including age, sex, a proxy for years since migration, years since migration squared, educational achievement, wage in the last job before unemployment, and size of the firm in the last job before unemployment. As with return intentions, including country of origin times year fixed effects ( $\mu_{o,y}$ ) allows us to compare outcomes for immigrants from the same country of origin who are interviewed in the same year either right before or right after the relevant and isolated terror event. The year and month of interview fixed effects ( $\rho_{y,m}$ ) allow us to control for month-year events that affect individuals from all origin countries. Standard errors are clustered at the country-year-month level.

Our identifying assumption is that had the terror event not occurred, the difference in outcomes between unemployed individuals who entered unemployment with and without an event would have been zero. While we cannot directly test this assumption, we run a balance test between these two groups of unemployed individuals, comparing a large set of characteristics at the time of unemployment registration.<sup>25</sup> The results are reported in Figure F.1 in Appendix F.1. The only statistically significant difference is in the share of females. However, the size of this difference is extremely small; on average, individuals in the treatment group are 0.4 percentage points more likely to be females than are those in the control group.

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<sup>25</sup>The beginning of an unemployment spell may be both voluntary and involuntary (e.g., following a lay off). The time of unemployment start is therefore non-random. However, for identification we only need to timing of employment end to be random relative to the occurrence of terror events in the home country.

## 4.2 Main results

We now turn to our main results on the labor market outcomes of immigrants entering unemployment when a relevant terror event occurs in their home country. The results are reported in Table 5 where Columns (1) and (2) show the estimated coefficients from Equation 3, using a dummy variable that equals one if an individual registered as unemployed within one month and within three months, respectively. As outcome, Columns (3) and (4) use a dummy variable that equals one if an individual entered employment within one month and three months after unemployment, respectively. We find that immigrants who enter unemployment in a month when a relevant terror event occurred in the home country are 1.7 percentage points more likely to register as unemployed within three months than individuals from the same home country who entered unemployment three months before the relevant terror event. We find no statistically significant difference in the probability of registering within one month. When turning to employment outcomes, our results show that immigrants who enter unemployment in a month when a relevant terror event occurred in the home country are 0.9 and 1.8 percentage points more likely to be employed within one and three months, respectively, than individuals from the same home country who entered unemployment three months before the relevant terror event. We assess the robustness of these findings following closely the tests performed in Section 3.3 for the analysis on return intentions. Appendix F.2 displays all results. Overall, our estimated coefficients are robust to changes in the definition of relevant terror events, to the exclusion of specific origin countries and years, and to placebo treatment dates.

Table 5: Effects of terror events on unemployed immigrants' outcomes

	<b>Registered</b>		<b>Employed</b>	
	within 1m	within 3m	within 1m	within 3m
	(1)	(2)	(3)	(4)
Post-Terror	0.009 (0.010)	0.017* (0.009)	0.009** (0.004)	0.018*** (0.006)
Observations	49092	49092	49092	49092
Origin country FE x Year FE	Yes	Yes	Yes	Yes
Month FE x Year FE	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes
Individual controls	Yes	Yes	Yes	Yes

Standard errors in parenthesis clustered at the country x year x month level, \* $p < .1$ ; \*\* $p < .05$ ; \*\*\* $p < .01$

Notes: Figure 5 reports the estimated coefficients and clustered standard errors in parenthesis for regressions of the outcome on the terror indicator as in Equation 3. Post-Terror equals one for individuals entering unemployment in the same month-year when a terror event occurs in the home country, and it equals zero for individuals entering unemployment three months before that terror event. Individual controls: education, age, sex, years since migration, and its square, ln of the wage in the last job before unemployment and ln of the firm size in the last job before unemployment.

We now turn to the type of firms and jobs reported among immigrants who found a job within three months of becoming unemployed. Regarding job characteristics, we focus on four outcomes related to our discussion in Section 4, which reflect the quality of the jobs/matches individuals get. Column (1) in Panel A of Table 6 uses the log of the hourly wage in the first job after unemployment as an outcome (in all our regressions, we control for the log of the hourly wage in the last job before unemployment). With respect to the IEB data, we do not have information on contractual hours; therefore, we cannot compute weekly or monthly wages. However, we know whether individuals are engaged in full-time employment. Hence, in Column (2), we use a dummy variable that equals one if an individual had a non-full-time job (non-FTE) before unemployment and then obtained a full-time job (FTE) after unemployment. In Column (3), we use a dummy variable that equals one if an individual changed from full-time employment (FTE) to non-full-time employment (non-FTE). Column (4) is a dummy variable that equals one if an individual changed occupations between the last job before unemployment and the first job after unemployment. The results in Panel A of Table 6 show that immigrants who enter unemployment in a month with a relevant terror event and those who find a job within three months have lower hourly wages than immigrants who enter unemployment under stable conditions. Additionally, the results in Column (3) of Panel A in Table 6 show that these individuals are 6.2 percentage points more likely to change from FTE in their last job before unemployment to non-FTE in their

first job after unemployment. We find no statistically significant difference in the likelihood of changing occupations (Column (4)). Even if there are no immediate wage gains, immigrants could switch to companies that offer more stable jobs, better career prospects, higher future wage growth or better amenities. While we cannot measure all these outcomes directly in the IEB data, we use some proxies. In Column (1) of Panel B in Table 6, we use the log firm size in the first job after unemployment as an outcome (in all our regressions, we control for the log firm size in the last job before unemployment) since some larger firms in Germany offer more stable jobs. Column (2) is a dummy variable that equals one if an individual changed from a firm with a lower share of high-skilled employees to a firm with a higher share of high-skilled employees, and Column (3) reflects if he or she changed to a firm with a higher share of German workers. In Column (4), we use a dummy that equals one if an individual switched from a firm with a lower wage premium before unemployment to one with a higher wage premium after unemployment. The firm-specific wage premium is calculated using the Abowd-Kramarz-Margolis (AKM) model on the full IEB sample and is computed by the statistical division of the IAB (FDZ) in Bellmann et al. (2020) using the Card et al. (2013) framework.

The results in Panel B of Table 6 show that the immigrants who enter unemployment in a month with a relevant terror event and those who find a job within three months are 4.0 percentage points less likely to change to a firm that has a higher wage premium and 6.2 percentage points less likely to change to a firm with a higher share of high-skilled workers than are immigrants who enter unemployment under stable conditions. We find no evidence of discrimination from firms in which most employees are Germans.

These results suggest that immigrants who enter unemployment in a month with high levels of violence at home trade immediate job security for lower earnings, unstable jobs and less-productive firms. Consistent with these findings, in Section 4.3, we show that for unemployed immigrants in the GSOEP, terrorist events in the home country have a negative effect on reservation wages.

Table 6: Terror events and the job and firm characteristics among those employed within 3 months

	<b>Panel A: Job characteristics (Emp. within 3 months)</b>			
	Ln hourly wage (1)	Change from non-FTE to FTE (2)	Change from FTE to non-FTE (3)	Change occup. (4)
Post-Terror	-0.092*** (0.020)	-0.003 (0.011)	0.033** (0.015)	0.016 (0.019)
Observations	13064	13064	13064	13064
	<b>Panel B: Firm characteristics (Emp. within 3 months)</b>			
	Ln firm size (1)	Change higher share HS (2)	Change higher share GER (3)	Change higher AKM (4)
Post-Terror	-0.075 (0.059)	-0.069*** (0.018)	0.013 (0.015)	-0.040** (0.016)
Observations	12267	12267	12267	12267
Origin c. FE x Year FE	Yes	Yes	Yes	Yes
Month FE x Year FE	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes
Individual controls	Yes	Yes	Yes	Yes

Standard errors in parenthesis clustered at the country x year x month level, \*p<.1; \*\*p<.05; \*\*\*p<.01

Notes: Figure 6 reports the estimated coefficients and clustered standard errors in parenthesis for regressions of the outcome on the terror indicator. Post-Terror equals one for individuals entering unemployment in the same month-year when a terror event occurs in the home country, and it equals zero for individuals entering unemployment three months before that terror event. Individual controls: education, age, sex, years since migration, and its square, ln of the wage in the last job before unemployment and ln of the firm size in the last job before unemployment.

### 4.3 Mediating channels

In this section, we explore the effect of terror attacks on other outcomes that could mediate the effect of terror on labor market behavior. Namely, we look at the effect of terrorist events on remittances, self-reported health and reservation wages. It could be that the families of immigrants in the home country are directly affected by terrorist events; hence, some immigrants want to reenter employment faster to be able to send money to their relatives. On the other hand, terror events could affect the mental health of immigrants such that they find it difficult to reenter employment. To proxy for remittances, we rely on a GSOEP question that asks respondents if they have sent money abroad and for mental health, we rely on a question on self-reported health satisfaction (1-5 scale).

The results are shown in Table 7. Terror events were found to have no significant effect on self-reported health satisfaction or on the ability to send money abroad. The negative effect on remittances could be driven by the fact that after a terror attack, immigrants perceive their home country as being more financially insecure or that they expect the terror attacks to affect the financial markets. Nevertheless, it is not statistically significant, and hence it is unlikely that the results in Section 4 are affected by the negative effect on remittances.

In Column (3) of Table 7, we also show that terrorist events might affect the reservation wages of GSOEP respondents who were unemployed at the time of the survey. Despite the small sample size, there is some suggestive evidence that by creating a feeling of insecurity in the home country, terror events lower the reservation wage by 364 euros in Germany. The negative effect of relevant terrorism events on the reservation wage effect might be driven by the fact that immigrants "anchor" their reservation wage in Germany by the wage below which they would prefer to return to their home country. When compared with the results shown in Table 5, we find evidence of a pass-through from lower reservation wages to lower accepted wages.

Table 7: Terror events, 90-day 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 FE x Year FE	Yes	Yes	Yes
Month FE x Year FE	Yes	Yes	Yes
State of residency FE	Yes	Yes	Yes
Individual controls	Yes	Yes	Yes

Standard errors in parenthesis clustered at the country x year x month level, \*p<.1; \*\*p<.05; \*\*\*p<.01  
Notes: Table 7 displays the coefficients from the estimation of Equation 2 where the outcome is "Remain permanently in Germany". All results consider a 90-day bandwidth. Individual controls include age, sex, years since migration and its square, marital status, educational achievement and children.

## 5 Conclusions

Using plausibly exogenous shocks to safety conditions in the home country, this paper provides novel evidence on the determinants of return migration and immigrants' economic behavior in the host country. More specifically, this study exploits the quasi-random occurrence of terror events in the home country relative to the timing of survey interviews and job separations to estimate the effect of these violent events on the immigrants' decision to remain permanently in Germany and job search behavior.

We show that terror events in the home country affect immigrants' return plans by increasing the probability of staying abroad permanently. These effects are stronger



for immigrants who are poorly integrated into the host society and have core family ties at the origin. The same violent events nearly simultaneously affect the job search behavior of unemployed immigrants. We find that immigrants whose employment spell ends when a terror event occurs in their home country stay unemployed for a shorter period of time compared to those who enter unemployment in stable times.

While these effects may benefit immigrants' employment outcomes in the short term, the long-term consequences of such behavioral responses may be negative as we find that the same immigrants are more likely to enter lower-paying jobs and less productive firms.

As immigrants' length of stay and employment outcomes abroad have economic consequences for the home and the host country (Barsbai et al., 2017; Colas and Sachs, 2023; Dustmann and Frattini, 2014; Foged and Peri, 2016; Mobarak et al., 2023), we believe that the results summarized in this paper can contribute to a better definition of integration and migration policies in response to upsurging conflicts and violence worldwide.

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## A Immigrants in Germany

The current immigrant population in Germany essentially reflects three large immigration waves. The first wave started in the mid-1950s when, due to strong economic growth in (West-) Germany and a lack of available manpower, Germany started to actively recruit foreign workers abroad, predominantly in Turkey, Yugoslavia, Italy, Greece, and Spain. Following the recession in 1973/1974, this active recruitment of immigrants was abandoned. However, subsequent immigration of family members continued. The second and more recent immigration wave to Germany was triggered by the collapse of the former Soviet Union and the political changes in Eastern Europe in the late 1980s and early 1990s. The main immigrant groups of this period were, on the one hand, ethnic German immigrants (so-called Aussiedler), mostly from Poland and the former Soviet Union, and, on the other hand, refugees from the wars in former Yugoslavia. The third wave was in 2015-2016 when a new wave of asylum seekers arrived in Germany driven by the wars in Syria, Iraq, and Afghanistan.

Table [A.1](#) shows the fifteen largest immigrant groups in the GSOEP survey across time. The last column shows the frequencies for the time period used in this study (we restrict to after 1999 to be compatible with the IEB). We can see that the share of immigrants in the sample accompanies well the different migration waves<sup>26</sup>

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<sup>26</sup>We discuss the migration samples within the GSOEP in the Appendix [A.1](#)

Table A.1: Largest migrant groups in the GSOEP data in %

	1985- 1990	1991- 2000	2001- 2010	2011- 2018	Total 1985-2018	Sample 2000-2018
Turkey	35.403	30.998	20.914	6.938	18.567	11.845
Italy	17.915	13.207	7.760	3.170	8.140	4.797
Greece	13.330	8.643	3.931	1.872	5.206	2.631
Spain	10.244	5.019	1.873	0.961	3.211	1.298
Ex-Yugoslavia	9.171	4.114	1.785	0.191	2.518	0.751
Croatia	4.601	5.105	3.029	1.018	2.751	1.735
Bosnia-Herzegovina	3.039	4.170	2.790	1.173	2.373	1.743
Poland	0.715	7.440	11.052	8.400	7.746	9.333
Kosovo-Albania	0.389	0.920	1.414	2.632	1.729	2.212
Romania	0.373	2.568	4.653	5.221	3.918	5.000
Russia	0.039	3.952	9.008	9.580	7.048	9.354
Kazakhstan	0.000	3.781	8.628	8.095	6.255	8.260
Syria	0.047	0.040	0.054	14.631	6.645	9.612
Iraq	0.000	0.020	0.171	4.575	2.110	3.058
Afghanistan	0.000	0.020	0.078	3.668	1.680	2.436

Notes: Table A.1 reports the distribution of the largest nationalities in the GSOEP over time. Shares are computed across the sample of respondents in each decade. The last column reports the distribution of the largest nationality groups in the full sample.

Source: GSOEP

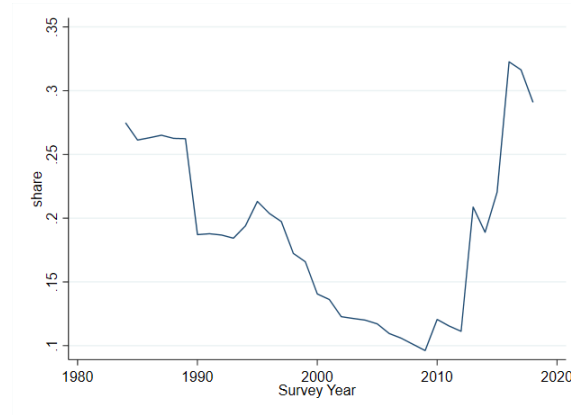
## A.1 Immigrants in the GSOEP

Figure A.1 shows the share of immigrants in the GSOEP sample. When the survey started in 1984, immigrants represented about 27 percent of the GSOEP sample. At this time, the main groups of foreigners were individuals from Turkey, Greece, Yugoslavia, Spain, and Italy (sample B). The share of immigrants fell until 1994 when a boost sample (D1 and D2) of immigrants who came to Germany after 1984 was added to consider the flow of ethnic Germans from the former Soviet countries. After the boost sample was added in 1994-95 the share of immigrants in the GSOEP fell steadily. To improve the representation of immigrants living in Germany, two new samples (M1 and M2) were established in 2013, which covered individuals who immigrated to Germany after 1995 or second-generation immigrants<sup>27</sup>. Following the Arab Spring and the war in Syria, a new refugee sample was added in 2016 (M3 and M4), with a subsequent booster in 2017 (M5). These samples covered households with individuals who arrived in Germany between January 2013 and December 2016 and had applied for asylum by June 2016 or were hosted as part of specific programs

<sup>27</sup>Sample M1 was added in 2013 with around 2,700 households and includes individuals who immigrated to Germany after 1995 or second-generation immigrants. Sample M2 was added in 2015 with around 1,100 households, including individuals who immigrated to Germany between 2010 and 2013. The samples were drawn using register information from the German Federal Employment Agency and were the product of a cooperation between the Institute for Employment Research (IAB) in Nuremberg and the German Socio-Economic Panel (SOEP) at DIW Berlin. The first seven survey waves were carried out between 2013 and 2018.

of the federal states<sup>28</sup>.

Figure A.1: Share of immigrants in the GSOEP



Notes: Figure A.1 displays the immigrants' share in the GSOEP respondents sample in each survey wave. The y-axis refers to the share. The time window is 1984-2019. Source: GSOEP.

## A.2 Summary characteristics in the GSOEP

Table A.2 below shows the summary characteristics of the migrant population in the GSOEP data

Table A.2: Summary characteristics of the migrant population in the GSOEP data

	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

Notes: Table A.2 reports the main characteristics of the full sample of immigrants in the GSOEP data (2000-2018). We report the mean, standard deviation, and median values for each variable. The last row reports the total number of immigrants.

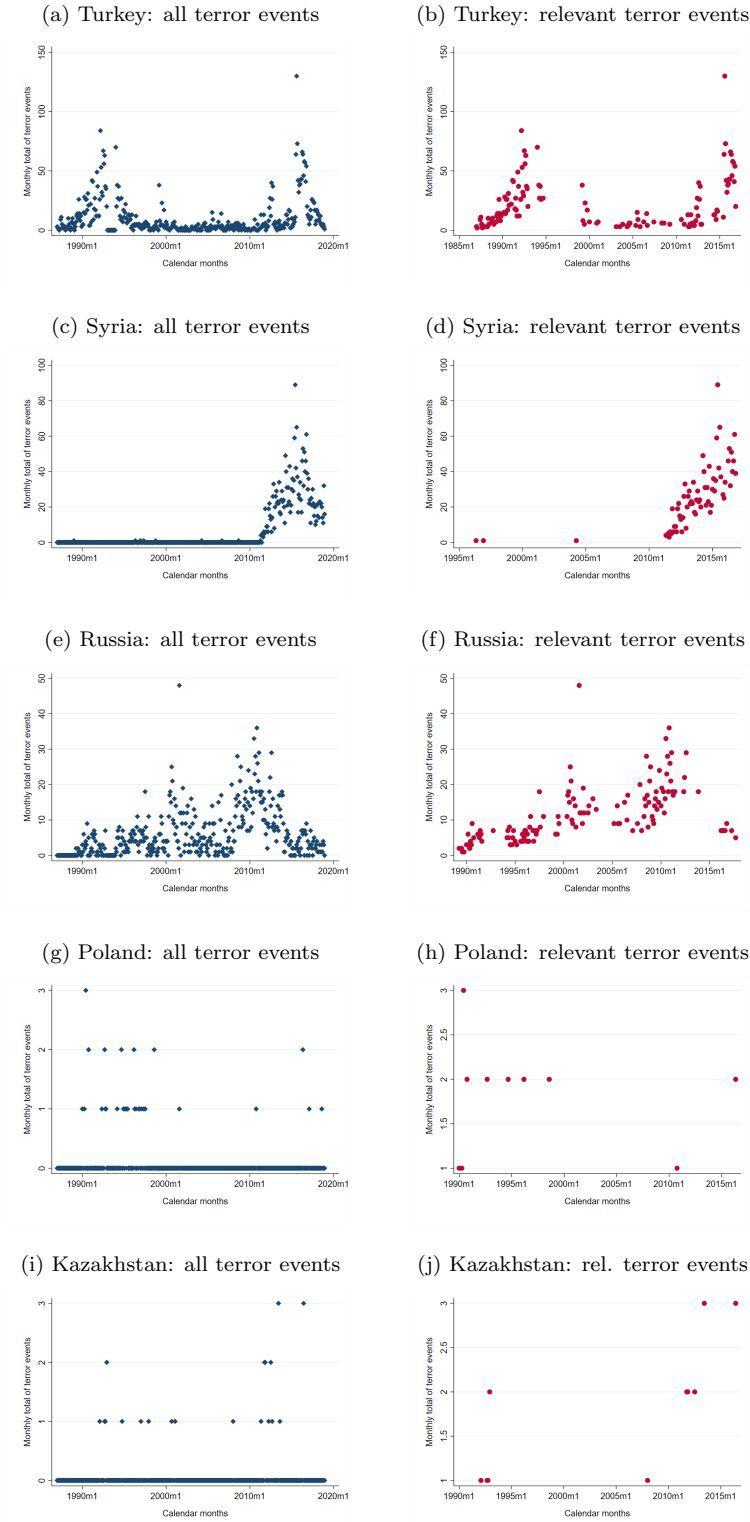
Source: GSOEP

<sup>28</sup>The refugee samples are a joint project of the Institute for Employment Research (IAB), the Research Center of the Federal Office for Migration and Refugees (BAMF-FZ) and the Socio-Economic Panel (GSOEP).



## B GTD Tables and Figures

Figure B.1: All terror events and relevant terror events (higher than average of last 3 years)



Notes: The left panel shows all terror attacks for each country between 2000-2018, as in the GTD data. The right panel shows the relevant events. An event is defined as relevant if, in a given month, there is at least one more terror attack than the past country-specific 3-year monthly average number.

Table B.1: Effective sample: Isolated and relevant terror events

	Higher than average past 3 years, 90 days bandwidth	
	Number of rel. & isol. events	Mean number monthly of terror attacks
Algeria	2	15
Argentina	1	2
Austria	2	4
Belarus	1	1
Belgium	2	2
Bosnia-Herzegovina	4	3
Brazil	2	2
Bulgaria	1	2
Canada	2	2
China	3	4
Colombia	1	17
Congo	1	4
Croatia	1	2
Czech Republic	2	2
Denmark	1	2
Ecuador	1	3
Ethiopia	1	2
Ex-Yugoslavia	2	3
France	3	5
Georgia	1	3
Ghana	1	2
Great Britain	3	6
Greece	3	6
Hungary	1	2
Iran	1	3
Iraq	1	285
Ireland	1	2
Israel	1	9
Italy	2	3
Jamaica	1	1
Japan	1	6
Kazakhstan	3	3
Kosovo-Albania	8	4
Kyrgyzstan	1	2
Lithuania	1	1
Macedonia	4	2
Mexico	1	5
Montenegro	1	1
Morocco	2	1
Norway	1	2
Pakistan	1	9
Palestine	1	4
Peru	1	2
Philippines	1	7
Poland	2	2
Romania	1	1
Russia	4	10
Serbia	2	2
Spain	3	6
Sri Lanka	1	5
Sweden	2	5
Switzerland	1	2
Taiwan	1	2
Tajikistan	2	3
Thailand	3	40
The Netherlands	2	3
Tunisia	3	3
Turkey	5	6
USA	5	8
Ukraine	1	5
Uzbekistan	3	2
Vietnam	1	2

Notes: Table B.1 reports the isolated and relevant events merged with the GSOEP. An event is defined as relevant if, in a given month, there is at least one more terror attack than the past country-specific 3-year monthly average number. A relevant event is isolated if individuals interviewed within the 90 days prior to the focal relevant terror event have not experienced any relevant terror event in the past 90 days.

## C Definition of a relevant and isolated terror event, treatment and control groups

### C.1 Relevant and isolated terror event

A terror event is *relevant* if there is at least one more terror attack in a given month than the past three-year average. Formally, we define a *relevant* terror event as follows:

$$T_{o,y,m}^R = \begin{cases} 1, & \text{if } T_{o,y,m} > \tau_{o,y,m}^{3\text{yr}} + 1 \\ 0, & \text{otherwise} \end{cases} \quad (4)$$

where  $T_{o,y,m}$  is the number of terrorist attacks in month  $m$ , year  $y$ , and country of origin  $o$  and  $\tau_{o,y,m}^{3\text{yr}} = \frac{1}{3} \sum_{j=-3}^{-1} T_{o,y+j,m-1}$  is the average of monthly terrorist attacks in the previous three years, starting from month  $m-1$ . Alternatively, we use the past four-year and five-year averages.

A relevant terror event is *isolated* if no other relevant events occurred in the previous 3 months or in the following 3 months. Formally:

$$T_{o,y,m}^{R,I} = \begin{cases} 1, & \text{if } \sum_{k=1}^3 T_{o,y,m+k}^R + \sum_{k=-3}^{-1} T_{o,y,m+k}^R = 0 \\ 0, & \text{if } \sum_{k=1}^3 T_{o,y,m+k}^R + \sum_{k=-3}^{-1} T_{o,y,m+k}^R > 0 \end{cases} \quad (5)$$

Alternatively, we use smaller bandwidths, such as 1 and 2 months.

### C.2 Treatment and control groups

Define  $D_{o,y,m,1}^{R,I}$  as the first day of month  $m$  and year  $y$  in which  $T_{o,y,m}^{R,I} = 1$  and  $D_{o,y,m,\bar{d}}^{R,I}$  as the last day ( $\bar{d} = 28, 29, 30, 31$ ) of month  $m$  and year  $y$  in which  $T_{o,y,m}^{R,I} = 1$  for country  $o$ .  $I_{i,o,y,m,d}$  is the day in which individual  $i$  from country  $o$  is interviewed.

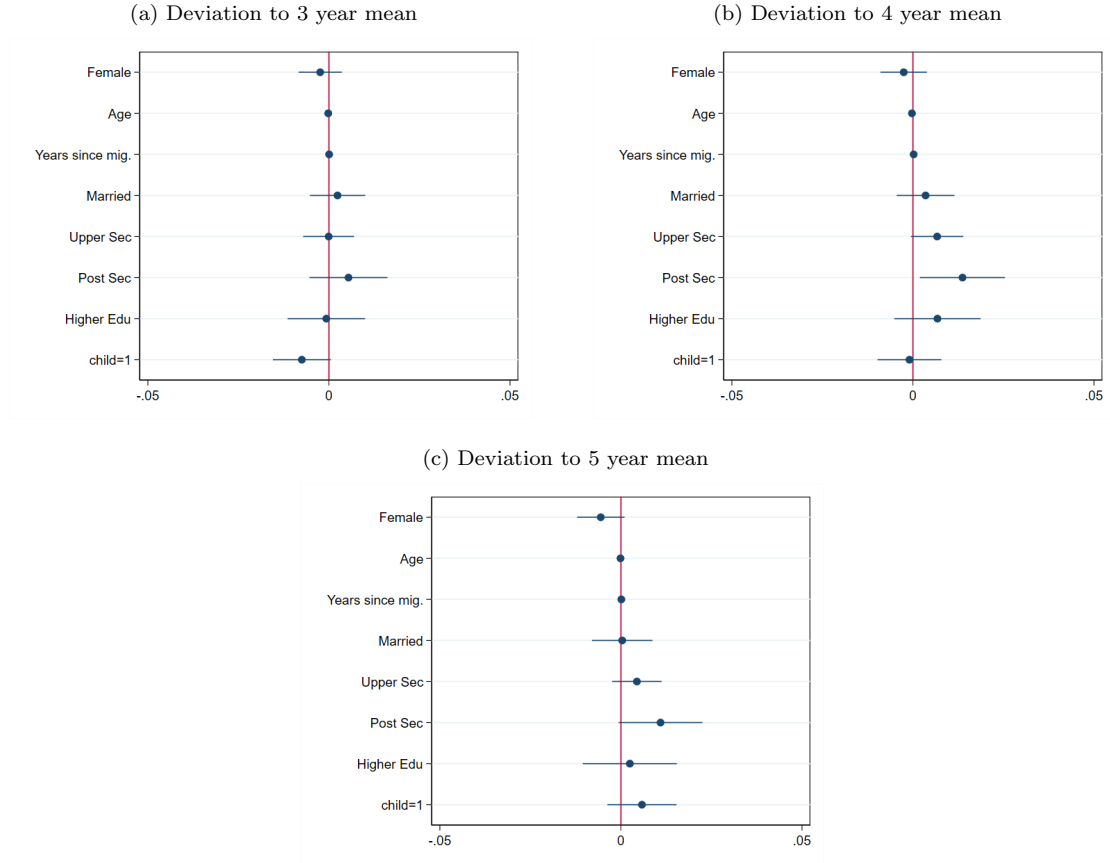
Respondent  $i$  from the country of origin  $o$  is assigned to the treatment group if he or she is interviewed within 90 days after a relevant and isolated terror event and to the control groups if he or she is interviewed within 90 days before that same event.

$$PostError_{i,o,y,m} = \begin{cases} 1, & \text{if } 0 < I_{i,o,y,m,d} - D_{o,y,m,31}^{R,I} \leq 90 \\ 0, & \text{if } -90 \leq I_{i,o,y,m,d} - D_{o,y,m,1}^{R,I} < 0 \end{cases} \quad (6)$$

## D SOEP additional Tables and Figures

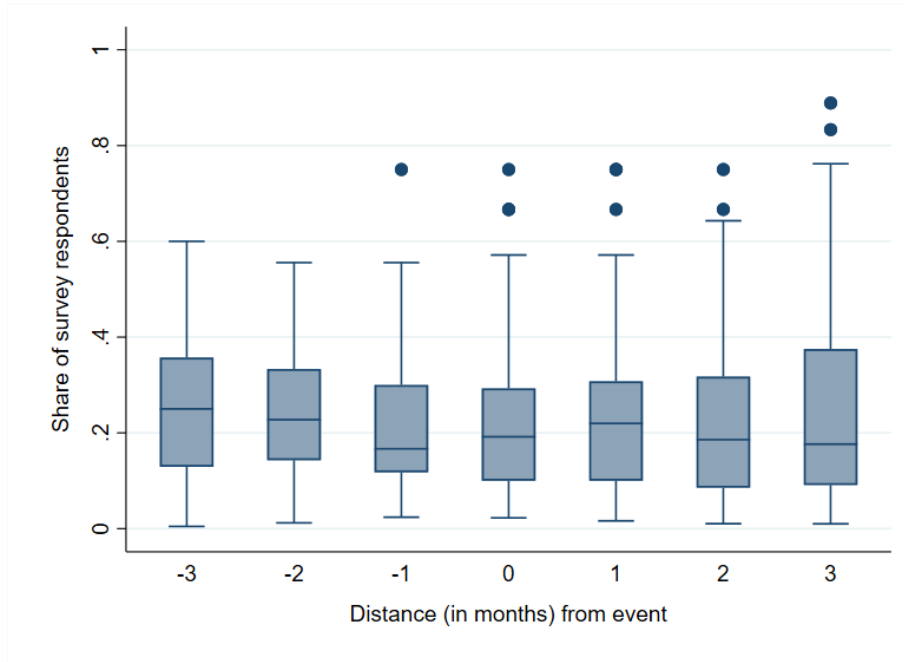
### D.1 SOEP joint balance tests and density test

Figure D.1: GSOEP: Joint balance test, 90-day bandwidth



Notes: Figure D.1 displays the coefficients from regressing all the individual controls and fixed effects from Equation 2 on the treatment status. In Panel D.1a, an event is considered to be relevant if the number of terror events in a given month is above the past 3-year mean of monthly terror events. Similarly, Panel D.1b considers the past 4-year mean and Panel D.1c the past 5-year mean. Standard Errors in parenthesis clustered at the Country x Year x Month level. Bars identify 95% confidence intervals.

Figure D.2: GSOEP: Density of interviews around terror events, 90-day bandwidth



Notes: Figure D.2 displays the share of interviews around each country-specific event that we use in our main estimations. For a given country-specific event, we consider: i) the total number of interviews in the 90 days before and after the event and; ii) the number of interviews at 90, 60, and 30 days before and after the event and at 0. The ratio in the x-axis represents the number of interviews at each of these points relative to the total number of interviews, e.g. ii) / (i). The x-axis indicates the months around terror events, and the red line at 0 indicates the time of the terror event.

## D.2 SOEP and political stability

Table D.1: Distribution of the political stability index and mean month terror events

	Mean	Percentile						
		5	10	25	50	75	90	95
PSI prev. year	36.477	2.857	14.762	22.275	34.286	50.000	63.333	68.269
PSI mean prev. 3 years	37.728	2.857	14.603	20.063	30.490	57.203	75.661	77.648
MM terror prev. year	19.030	0.000	0.000	0.167	0.500	3.583	12.583	281.917
MM terror prev. 3 yrs	19.027	0.000	0.000	0.139	0.889	3.083	16.389	279.667

PSI refers to the Political Stability Index, which ranges from 0-100. MM refers to the mean number of terror attacks in one month

### D.2.1 Alternative measure of political stability

As a second approach, we take the mean monthly number of terror attacks in the past three years used to classify terror events as relevant. We also use the mean monthly number of terror attacks in the past year to compare it with Table 3. We categorize

countries into i) low stability if the mean monthly number of terror events is equal or above 12; ii) mid stability if the mean monthly number of terror events is above 0 and below or equal to 12; and iii) high stability if the mean monthly number of terror events is equal to 0.<sup>29</sup> The results are shown in Table D.2. Using this approach, the effect of a relevant terror event on the intentions to remain permanently in Germany seems stronger for those coming from countries with low stability. This includes Algeria, Colombia, Thailand and Iraq, which experienced, on average, 15, 17, 40 and 285 terror attacks in one single month, respectively.

Table D.2: Overall political stability, terror events and intentions to remain in Germany, 90-day bandwidth

	Mean monthly terror	
	Previous year (1)	Mean previous 3 years (2)
Post-Terror $\times$ >12 attacks month	0.190*** (0.045)	0.186*** (0.044)
Post-Terror $\times$ [0-12] attacks month	0.115*** (0.036)	0.106*** (0.033)
Post-Terror $\times$ 0 attacks month	0.110** (0.053)	0.138*** (0.049)
Observations	6604	6604
Origin country FE x Year FE	Yes	Yes
Month FE x Year FE	Yes	Yes
State of residency FE	Yes	Yes
Individual controls	Yes	Yes

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

Notes: Table D.2 displays the coefficients from the estimation of Equation 2 interacted with a dummy variable proxying for political stability. All results use a 90-day bandwidth. FE refers to fixed effects. Individual controls include age, gender, years since migration and its square, marital status, educational achievement, and children.

### D.3 SOEP extra heterogeneous effects

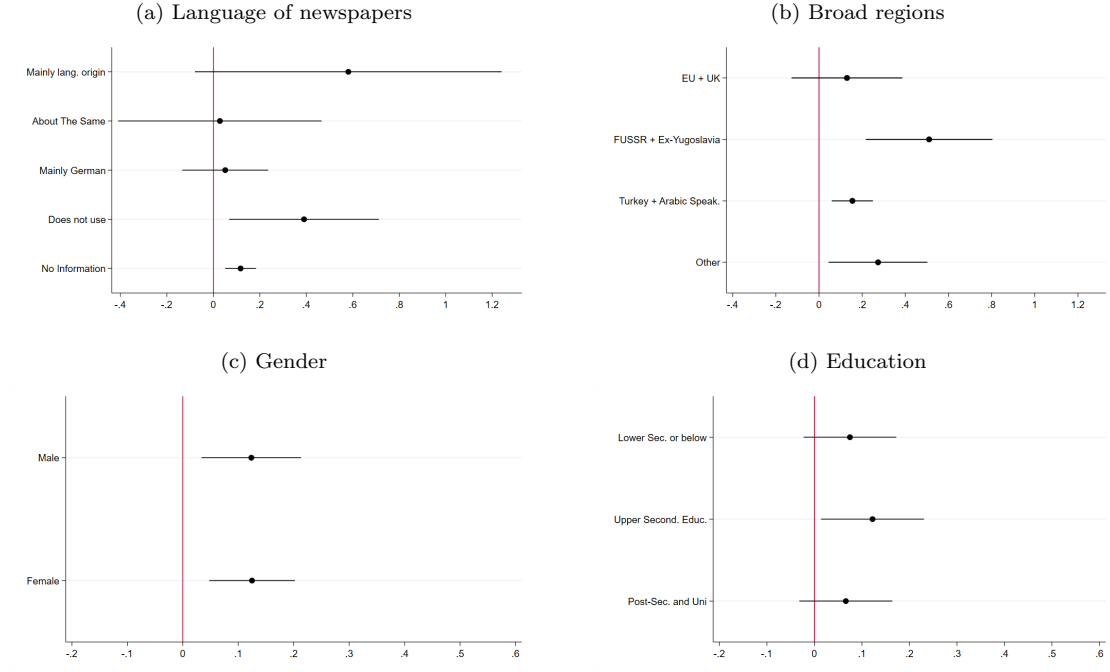
As an alternative proxy to the level of integration, we look at the language of the newspaper read by the respondent. Figure D.3a shows that individuals who read newspapers in mainly the language of their country of origin are more likely to update their return intentions following a terror event in their home country.

In Figure D.3b, we group individuals into broad regions of origin. The effect of terrorist events on return intentions is greater for individuals coming from the former USSR and ex-Yugoslavian areas, although the standard errors are also considerably larger.

<sup>29</sup>The choice of cutoffs is fairly arbitrary, we chose 12 because it means that in one single month, there were more terror attacks than in the scenario of 1 event per month in an entire year. We considered different marginal cutoffs, and the results do not change greatly. The index distribution in our particular sample is displayed in Table D.1

In Figures D.3c and D.3d we look at heterogeneous effects by gender and education group. The update in return intentions following a terror event is relatively similar within these groups.

Figure D.3: Heterogeneity analysis, 90-day bandwidth



Notes: Each panel displays the coefficients from the estimation of Equation 2 for each variable level in the graph title. All regressions consider an event as relevant if the number of terror events in a month is above the past three-year average and uses a 90-day bandwidth.

## D.4 SOEP robustness checks

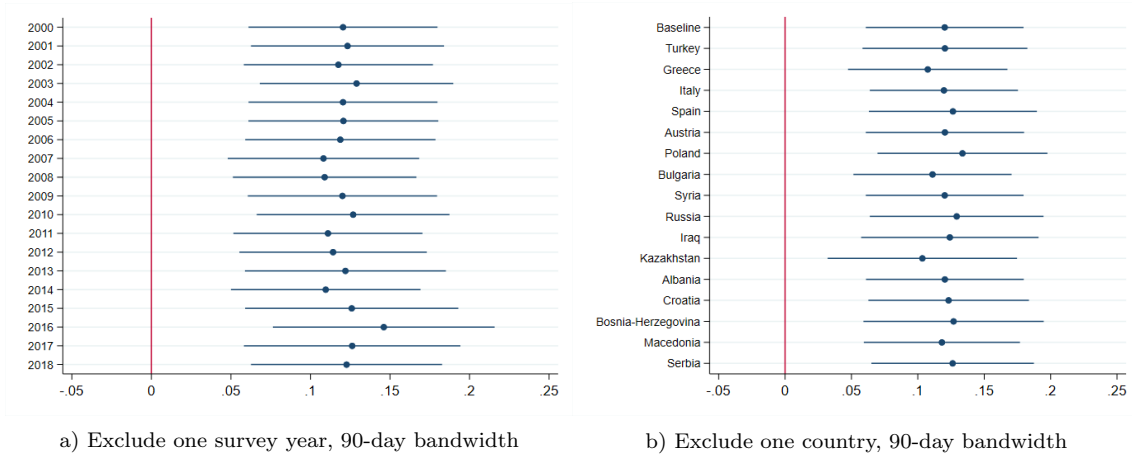


Table D.3: Robustness GSOEP: terror events and intentions to remain in Germany using different bandwidths, 90-day bandwidth

	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)
<b>Panel A: 30-day Bandwidth</b>						
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
<b>Panel B: 60-day Bandwidth</b>						
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
<b>Panel C: 90-day Bandwidth</b>						
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 x Year FE	Yes	Yes	Yes	Yes	Yes	Yes
State of residency FE	Yes	Yes	Yes	Yes	Yes	Yes
Individual 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  
Notes: Table D.3 displays the coefficients from the estimation of Equation 2 where the outcome is "Remain permanently in Germany". FE refers to fixed effects. Individual controls include age, gender, years since migration and its square, marital status, educational achievement, and children.

Figure D.4: Robustness GSOEP: exclude one country and survey year at the time, 90-day bandwidth



Notes: Panel a) and b) display point estimates and 95% confidence intervals for regressions excluding one survey year and country at a time, respectively. The y-axis refers to the excluded survey year (country). The x-axis indicates the size of the estimated coefficients. All regressions consider an event as relevant if the number of terror events in a month is above the past three-year average and include the full set of fixed effects and individual controls as in the baseline estimation. Robust standard errors. Standard Errors in parenthesis clustered at the Country x Year x Month level. 90-day bandwidth

## E IEB empirical strategy

In Section 3.1, we defined the control group as those interviewed in the three months preceding a relevant terror event (between time =  $-3$  and time =  $-1$ ), conditional on not having experienced any other terror event in the past three months.<sup>30</sup> If we were to look at the time to employment among individuals entering unemployment one month before the focal terror event (time =  $-1$ ), we would potentially be absorbing the effect of the terror event. If they do not find a job within 1-30 days, the terror event (time =  $0$ ) will affect their job search activity. Similarly, in Section 3.1, we defined the treatment group as those individuals interviewed in the three months after a relevant terror event (between time =  $1$  and time =  $3$ ), with the requirement that in those three months, there is no other terror event besides the focal terror event. However, our design doesn't preclude the occurrence of another terror event three months after the focal terror event (time >  $3$ ). Hence, if individuals entering unemployment two months after a relevant terror event (time =  $2$ ) do not find a job within 1-30 days (until time =  $3$ ), another terror event may affect their job search activity.

To overcome these issues, we define the outcomes, treatment group, and control group in the following way. The treatment group comprises immigrants entering unemployment in a month when a relevant terror event occurs in their home country (time =  $0$ ). We calculate the probability of registering as unemployed within one month (time =  $1$ ) and three months (time =  $3$ ) and the probability of entering employment within one month (time =  $1$ ) and three months (time =  $3$ ).<sup>31</sup> The control group consists of immigrants from the same country of origin who entered unemployment three months before the relevant terror event occurred in their home country (time =  $-3$ ).<sup>32</sup> Therefore, the relevant terror event (time =  $0$ ) does not affect the control group's probability of registering as unemployed within one month (time =  $-3$ ) and three months (time =  $-1$ ) and the probability of entering employment within one month (time =  $-3$ ) and three months (time =  $-1$ ).

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<sup>30</sup>In Section 3.1, we considered different bandwidths, 30, 60 or 90 days. For most of our analysis, we used 90 days, corresponding to three months.

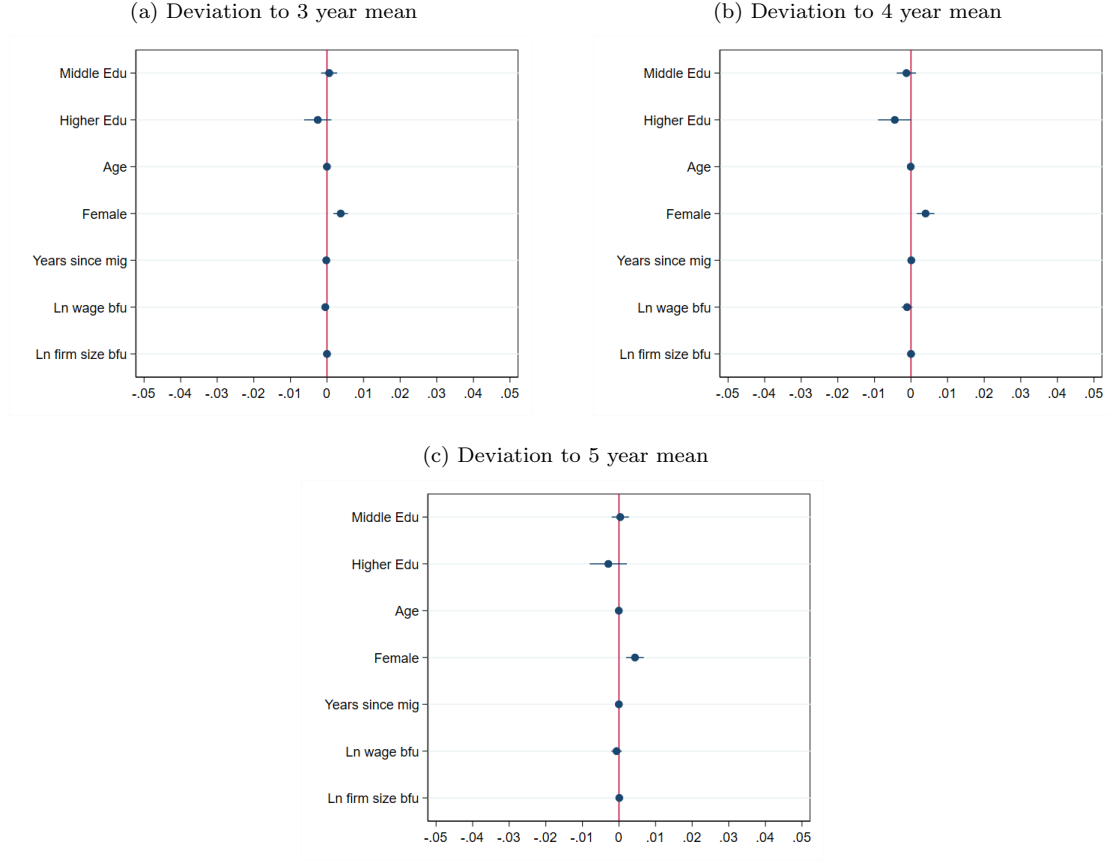
<sup>31</sup>Any outcome measure between time =  $0$  and time =  $3$  is unaffected by any other terror event besides the focal one.

<sup>32</sup>The way we defined a relevant terror event in Section 2 ensures that individuals interviewed three months before a relevant terror event have not experienced any other relevant terror event in the past three months. Hence, between time =  $-6$  and time =  $-4$ , there was no other relevant terror event.

## F IEB additional Tables and Figures

### F.1 IEB joint balance tests

Figure F.1: IEB: Joint balance test



Notes: Panel F.1a displays the coefficients from regressing the treatment status on all the individual controls and fixed effects as in Equation 3. In Panel F.1a, an event is considered to be relevant if the number of terror events in a given month is above the past 3-year mean of monthly terror events. Similarly, Panel F.1b considers the past 4-year mean and Panel F.1c the past 5-year mean. Standard Errors in parenthesis clustered at the Country x Year x Month level. Bars identify 95% confidence intervals.

### F.2 IEB robustness checks

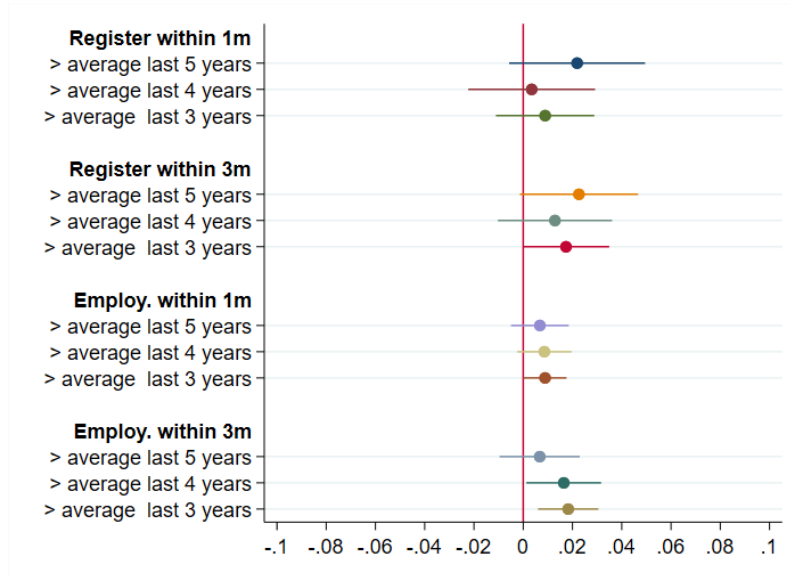
In this section, we test the stability of our results using placebo tests and robustness checks very similar to those in Section 3.3.

**Changing reference point** We start by testing whether the main results are sensitive to the bandwidth around the event or the average above which we consider a terror event to be relevant. Figure F.2 displays the estimated coefficients when

considering if, in a given month, there was at least one more terror event than the past country-specific three-year average (i.e., the baseline average), four-year average, or five-year average. Our main conclusions hold.

In the labor market empirical design used in this section, the outcome is itself related to the bandwidths.

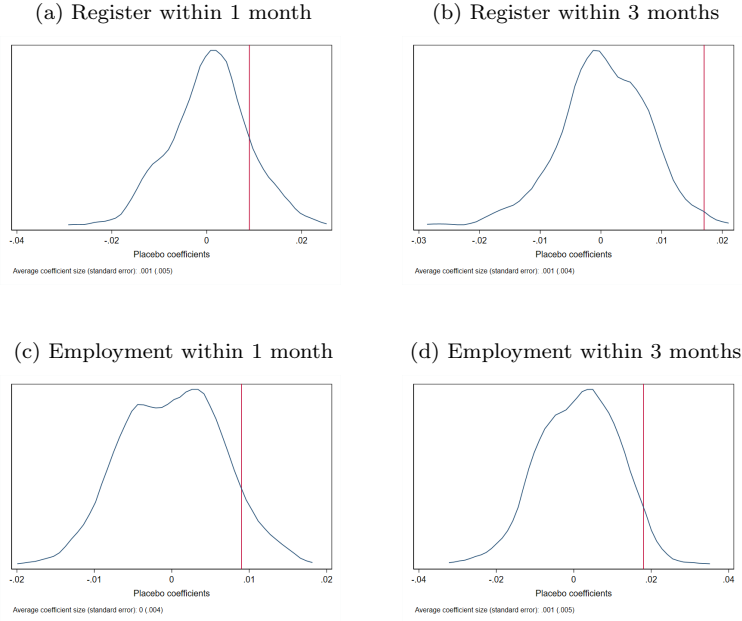
Figure F.2: Robustness IEB: higher than the average of last 3, 4 or 5 years



Notes: Figure F.2 reports the estimated coefficients for regressions of the outcome on the terror indicator using Equation 3. Post-Terror equals one for individuals entering unemployment in the same month-year when a terror event occurs in the home country, and it equals zero for individuals entering unemployment three months before that terror event. All regressions include country of origin times year fixed effects, month times year fixed effects and control for education, age, gender, years since migration, and its square, ln of the wage in the last job before unemployment, and ln of the firm size in the last job before unemployment. Standard Errors in parenthesis clustered at the Country x Year x Month level. Bars identify 95% confidence intervals.

**Placebo terror event date** One concern is that other factors drive the effects on labor market outcomes, and we would observe the same pattern in the absence of the terrorist event. To address this issue, we randomly assign the binary treatment status 100 times across all observations. If there are x-treated and y-controls across all observations, the total number of treated and controls does not change, but x and y and reshuffled across observations. We then estimate the effect of placebo treatment status on unemployment duration. Figure F.3 shows the distribution of the 100 estimated coefficients for the four outcomes of interest used in the main analysis in Table 5. The red vertical lines indicate the point under the true treatment assignment (the same coefficients reported in Table 5).

Figure F.3: Placebo: terror events and labor market outcomes

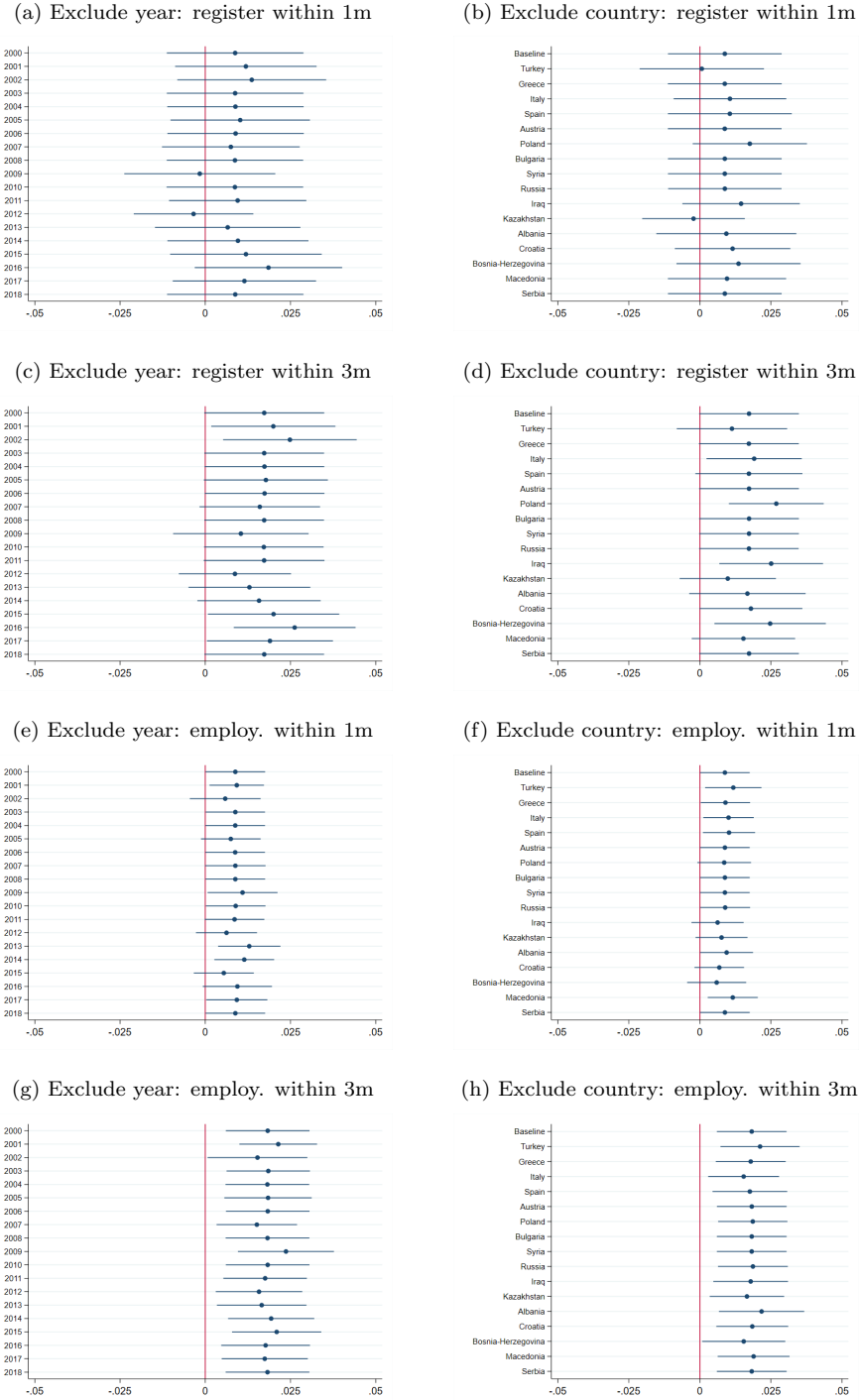


Notes: Figure F.3 reports the distribution of the placebo coefficients from 300 regressions. The vertical red line indicates the baseline coefficient.

In Table 5, we found a positive and significant effect of entering unemployment in a month with a terror event for all immigrants on the probability of registering as unemployed within three months and on the probability of finding employment within one and three months. Figure F.3 shows that assigning placebo treatment status to all immigrants who did not in reality experience a terrorist event has, on average, zero effects on the probability of registering as unemployed and of entering employment. These findings provide an important piece of evidence in favor of our baseline results.

**Excluding a year or a country** Here, we test whether our results are driven by specific countries or years. We run the baseline regression, excluding one year at a time and excluding one of the main countries of origin at a time. The graphs on the left-hand-side of Figure F.4 show the estimated coefficients for each regression in which a survey year is excluded for each of the four outcomes in Table 5. The graphs on the right-hand side of Figure 3 show the estimated coefficients for each regression in which a country of origin is excluded. The y-axis displays the excluded year or country of origin. Overall, our results are stable throughout these robustness tests.

Figure F.4: Robustness IEB: exclude one country and year at the time



Notes: Figure F.4 displays the point estimates and 95% confidence intervals for regressions excluding one year and country at a time, respectively. The y-axis refers to the excluded year (country). The x-axis indicates the size of the estimated coefficients. All regressions consider an event as relevant if the number of terror events in a month is above the past three-year average and include the full set of fixed effects and individual controls as in the baseline estimation (equation 3). The baseline estimates refer to those in Table 5. Standard Errors in parenthesis clustered at the Country x Year x Month level.