The Effect of Mobility Restrictions on Refugees

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PRELIMINARY AND INCOMPLETE

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Abstract

We study the effects of a policy that restricted refugees in Germany from moving across federal states for 3 years after receiving asylum. Moreover, we analyze mobility restrictions implemented by certain German states, which further limited refugee movement across districts and municipalities. Our identification strategy leverages the policy's application to refugees granted asylum after December 31, 2015, using administrative data on the timing of asylum decisions to obtain exogenous variation in exposure. We mainly focus on Refugees' mobility and employment outcomes. furthermore, we investigate the policy impact on wages, commuting behavior, benefit receipt, and human capital accumulation. Finally, we aim to develop a structural model of refugee location choice to simulate counterfactual scenarios, such as the spatial distribution of refugees in the absence of mobility restrictions or under alternative allocation policies.

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1 Introduction

Global refugee flows have increased from 42.7M in 2012 to 117.3M in 2023 (UNHCR, 2024). The majority of refugees are displaced indefinitely due to conflict in their home country, and a substantial share will remain in destination countries for decades, or even permanently. In light of these developments, designing and evaluating policies to efficiently integrate refugees into receiving countries' labor markets at scale is a priority. Labor market integration is not the only desideratum for policymakers tasked with the management of refugees inflows, who also face operational and political constraints. One such constraint is the achievement of an equitable spatial distribution of refugees. This is achieved by the means of dispersal policies that distribute asylum seekers across the regions of a country, typically in proportion to population and/or tax revenues.

Several studies examine how initial geographic placement influences labor market integration. Edin et al., 2004 and Åslund and Rooth, 2007 analyze the role of initial labor market conditions, finding that poor entry conditions negatively impact long-term economic success. Similarly, Wachter, 2020 highlights the long-term adverse effects of entering weak labor markets. Another strand of research investigates the role of social networks and ethnic enclaves. Martén et al., 2019 and Azlor et al., 2020 emphasize the significance of ethnic networks and local labor demand in fostering economic integration. In contrast, Müller et al., 2023 and **damm2009** show that while unemployment rates at arrival hinder integration, co-ethnic networks do not consistently lead to better outcomes. Foged et al., 2024 suggest that language training and initial placement in strong labor markets improve employment outcomes, while reducing welfare payments and clustering refugees together do not yield benefits. Aksoy et al., 2023 and Jaschke et al., 2022 provide evidence that local attitudes and discrimination shape integration trajectories, showing that perceived hostility may increase assimilation efforts but also heighten barriers to integration. Studies exploring immigrants' location preferences generally find that both economic factors and social networks influence decisions. Jaeger,

2007 and Jayet et al., 2016 highlight the importance of existing migrant communities in location choices, particularly among family-based immigrants. However, their results indicate that employment-based migrants and refugees are more responsive to labor market conditions. Further research differentiates between first and subsequent location choices. Tanis, 2020 shows that newly arriving immigrants prioritize strong labor markets, whereas ethnic concentration becomes more relevant in later relocations. These findings suggest a dynamic decision-making process where both economic opportunities and social networks shape migration patterns over time. Recent studies propose algorithmic approaches to optimize refugee resettlement. Bansak et al., 2018 and Trapp et al., 2020 advocate for data-driven placement strategies, demonstrating that systematic placement can improve employment outcomes by up to 38%. Further refinements focus on preference-based matching. Delacrétaz et al., 2023 propose theoretical models that improve efficiency and encourage refugees to report settlement preferences. Bansak and Paulson, 2024 extend these models by developing dynamic assignment algorithms that enhance geographic distribution while minimizing employment losses.

Research on employment restrictions highlights their long-term costs. Fasani et al., 2021 and Marbach et al., 2018 show that employment bans significantly reduce economic integration. Similarly, Gupta, 2023 finds that labor mobility constraints negatively impact wages and firm value. Historical evidence aligns with these findings. Braun and Dwenger, 2020 analyze post-war Germany and demonstrate that lifting resettlement restrictions allowed expellees to align with optimal labor markets, closing the gap in labor force participation rates. This supports modern evidence suggesting that limiting refugees' mobility imposes substantial economic costs. Studies evaluating Germany's residency obligation policy provide mixed results. Schikora, 2019 finds that district-level placement restrictions increase integration course completion and language proficiency in the short run, though this effect is partly mechanical due to better course availability in restricted regions. Conversely, Brücker

et al., 2020 demonstrate that residence requirements reduce employment prospects and private housing access without significantly affecting participation in language courses. These findings suggest that while strict placement policies may improve initial integration efforts, they may also hinder long-term economic outcomes.

Whether or not mobility restrictions are an effective and efficient tool depends on several factors. How effective are mobility restrictions in preserving the initial spatial distribution of refugees over the short- and medium-term? To what extend do mobility restrictions inhibit the labor market integration of refugees? Since mobility restrictions restrict choice, it is also likely that they impose welfare costs, which may be large for some groups. How large are these welfare costs? How do the long-term spatial distributions and welfare costs compare to alternative policies?

To answer these questions, we study a set of refugee mobility restrictions implemented at the peak of the 2015-16 refugee influx in Germany using linked administrative data covering the near-universe of refugees. In this paper, we estimate the average effects of mobility restrictions on mobility and employment by combining variation in the timing of refugees' asylum approval with the timing of when restrictions went into place. In subsequent analyses, we plan to estimate the heterogeneous effects of mobility restrictions across space, exploiting the fact that refugees' initial locations are exogenous due to Germany's dispersal policy. This will allow us to observe heterogeneity in the degree to which restrictions were binding and detrimental to refugee labor market outcomes across regions for different subgroups of refugees. We then plan to combine these estimates with data on mobility patterns, local refugee wage premia, and other regional characteristics to estimate or calibrate a structural model of refugee location choice. This model will allow us to simulate the spatial distribution of refugees in the absence of mobility restrictions as well as under alternative policies. It also allows us to quantify the welfare cost of mobility restrictions on refugees.

2 Institutional background

Asylum seekers are distributed spatially in Germany after their registration. The distribution across the 16 federal states is based on the so-called "Königstein Key", which sets quotas based on tax revenue and population size. Within the federal states, similar criteria are applied to further distribute asylum seekers to district-free cities, districts and municipalities. Asylum seekers are generally required to remain in the (initial) reception facilities to which they have been assigned until completion of the asylum procedures. In the event that asylum decisions have not been made, this mobility restriction or "residence obligation" (*Residenzpflicht*) expires after 18 months, at which point a residence is assigned by the competent authorities (Section 60 Asylum Act), usually to be taken in a shared accommodation (Section 53 Asylum Act).

The mobility restrictions we study were passed as part of the German Integration Act of 2016, and were intended as a complement to the longstanding dispersal policy. A federal policy restricted refugees from moving across German states for three years after receiving asylum. A subset of states enacted additional restrictions that limited movements across districts or municipalities within states. Prior to the implementation of the Integration Act in August 2016, asylum seekers who were granted protection status in asylum procedures were automatically released from any restrictions on place of residence. The Integration Act significantly reduced this freedom of movement through an amendment to the Residence Act. It came into force on August, 6^{th}, 2016 and regulates the residence of asylum seekers whose recognition or initial granting of a residence permit has taken place since January 1, 2016. A federal mobility restriction, prohibiting refugees from moving between federal states, applied to all states. In addition, each federal state had the option to implement a "Positive Residency Obligation", whereby refugees can be restricted to remain in an assigned district or municipality, a "Negative Residency Obligation", whereby refugees are restricted from living in a specific district or municipality, or neither. Seven federal states made use of the possibil-

ity of allocating residence to districts and municipalities, and two federal states applied the negative residency obligation. Specific circumstances, including a family reunification or an offer of employment in a distant region, allowed refugees to waive the residence obligation. Over time, more refugees were able to satisfy those requirements. Therefore, the effects of the residence obligation on mobility were strongest in the months after the recognition of the refugee status. The implementation of the additional restrictions at district level varies between states as well as within them. There is no systematically documented record of implementation dates. Variations in implementation timing stem from factors such as legal clarifications and delays in establishing administrative processes and enforcement capabilities.

3 Data

Our analyses combine several administrative datasets made available by the Institute for Employment Research (IAB) for research purposes. The main dataset are the Integrated Employment Biographies (IEB), which we complement with information on immigration and asylum application histories from the Immigration History Biographies (SHZ).

The Integrated Employment Biographies (IEB) is an administrative dataset that combines data collected by the German Federal Employment Agency (BA) during its operative business activities. The raw datasets are processed and prepared by the Institute for Employment Research (IAB). They compile the longitudinal data on the employee, job seeker and benefit recipient statistics of the Federal Employment Agency. The IEB include comprehensive and accurate information on the employment, earnings, occupation, unemployment, and benefit receipt. The IEB provides information on a limited set of personal characteristics of the employees such as date of birth, gender, citizenship, and level of education. The

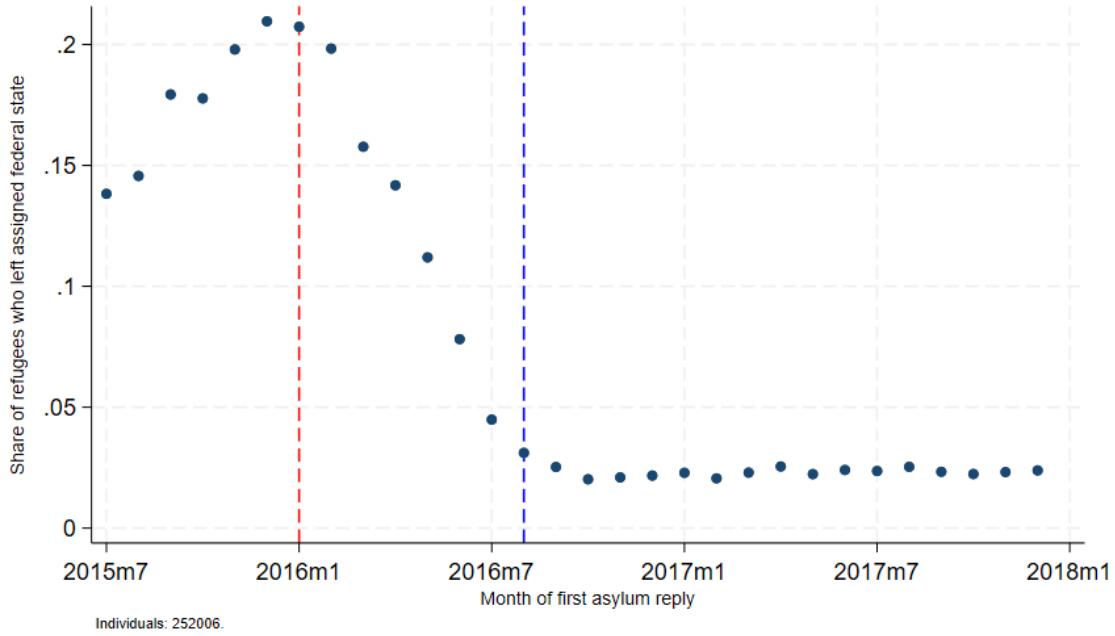
place of work and the place of residence are also recorded at the municipality level. Data on employment excludes groups that are not subject to social security notifications, such as civil servants and self-employed persons.

The Immigration History Biographies (SHZ) consolidates information from the Central Register of Foreigners (AZR) of the Fedral Office for Migration and Refugees (BAMF) that is available to caseworkers of the BA. It includes information on immigration dates, residence status, dates of asylum application, and dates of asylum decision. The SHZ sample is limited to foreign persons with a non-EU nationality. A first contact with the BA or one of its institutions for job search, benefit receipt, or participation in activation programs is a prerequisite for caseworkers to generate a record to be included in the dataset. As a result, the SHZ is more selective than the IEB. Still, this does not constitute a major challenge to our study because the vast majority of refugees collect benefits or participate in training measures after receiving a positive reply on their asylum request.

We restrict our analysis to individuals with non-missing first asylum response dates. Since our analysis requires observing places of residence before the treatment, i.e., before the asylum response, we further restrict to refugees with observations in the IEB on or before first their asylum response date. We define the district of treatment as the district of residence on the day of first asylum response and mobility is a change of place of residence (district or state) with respect to the district of treatment. We retain individuals whose asylum decision was made between June 2015 and December 2017. Last but not least, We limit observations to a 6-month period before and a 36-month period after the asylum decision. To build a monthly panel, we keep the first observation each calendar month. We end up with a final analysis sample that includes 252,006 individuals over the period between 2015 and 2019.

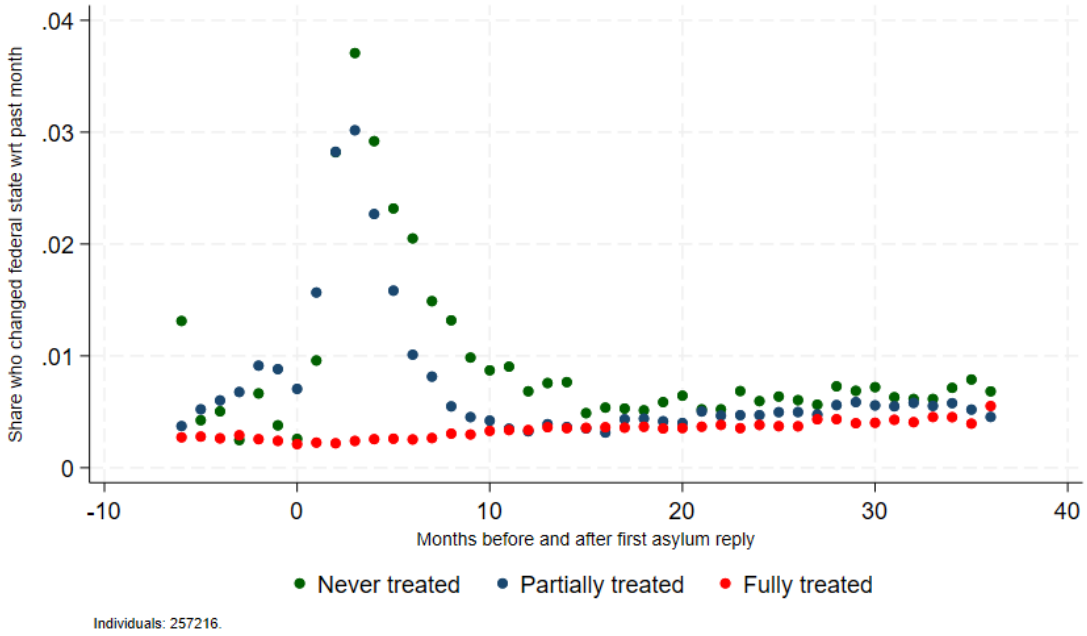
Figure 1 illustrates the three groups that arise from the combination of the implementation date and the retroactive nature of the policy. It shows that the share of refugees leaving their assigned district 12 months after the recognition of their approval date was between 25 and

Figure 1: Cumulated share of refugees changed the assigned federal state within 12 months after the asylum reply



33% among the cohort approved before 2016. For refugees approved between January and July 2016, the share of refugees relocating from their assigned district decreased almost linearly, reflecting the fact that earlier approval months left more time for mobility when the policy change was not yet anticipated. For cohorts approved in August 2016 or later, the share relocating 12 months after the recognition of their approval date dropped below 15% and stabilized below 10%. Figure 2 shows that for unrestricted and partially restricted cohorts, the probability of relocating is highest within the first 12 months after approval of their asylum request. Consistent with the policy change, the figure also shows that the cohort of fully treated refugees was not able to take advantage of this relocation opportunity to the same extent as previous cohorts did.

Figure 2: Share of refugees changed the federal state wrt past month



4 Empirical strategy

Our empirical strategies vary depending on the level of restriction of the policy (across states vs. within states) that we are analyzing to identify the causal effects on refugees' labor market outcomes.

4.1 Stage I: Matching Regression Specification

Our research design exploits the timing of the policies under study. The federal policy was passed in August of 2016, but was applied retroactively to all refugees who received asylum after December 31, 2015. Since our data permit us to observe the precise timing of asylum decision for each refugee, we use comparisons between refugees who received asylum in late 2015 (fully mobile), during the period January-August 2016 (mobility partially restricted), and post-August 2016 (mobility fully restricted), to identify the causal effects. since we investigate the differences in mobility and labor market outcomes between never and fully treated

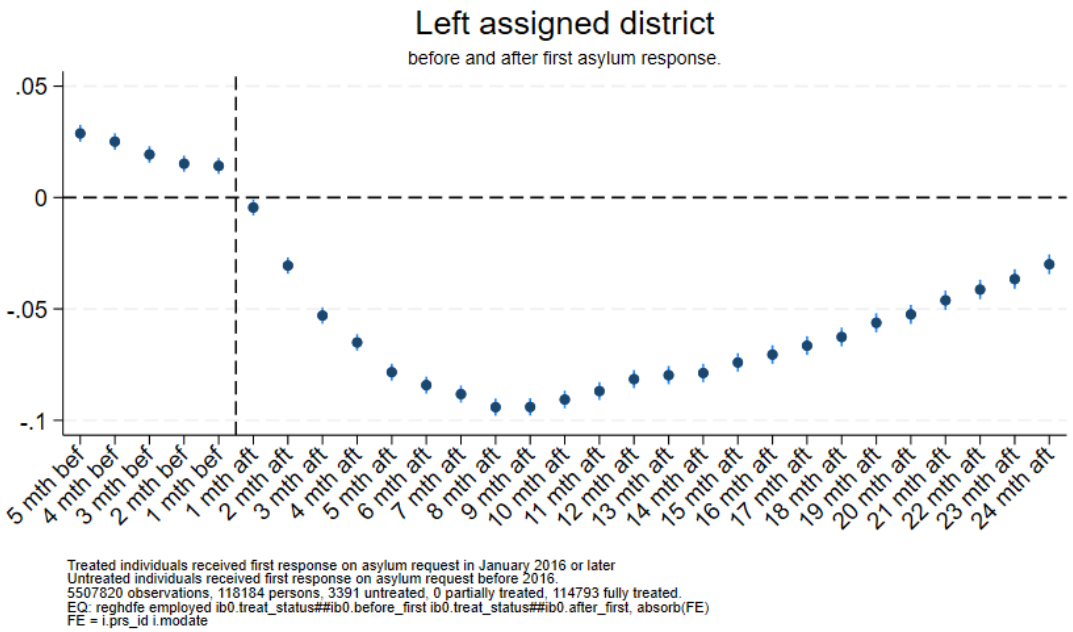
(restricted) groups which are heterogeneous, we use an entropy balancing approach to match on: months since immigration, country of origin, gender, current employment state, number of district changes, federal state, and type of assigned district (in the first month before the asylum reply) and run our regressions on the matched sample

We estimate the following equation:

$$Y_{it} = \alpha + \sum \beta_k D_{it}^{(k)} + \delta_s + \lambda_t + \varepsilon_{it} \tag{1}$$

where Y_{it} is the outcome variable for unit i at time t. $D_{it}^{(k)}$ are event time dummies, indicating periods before and after the event. β_k captures the treatment effects at different event time periods. δ_s are federal state fixed effects. λ_t are time fixed effects. ε_{it} is the error term.

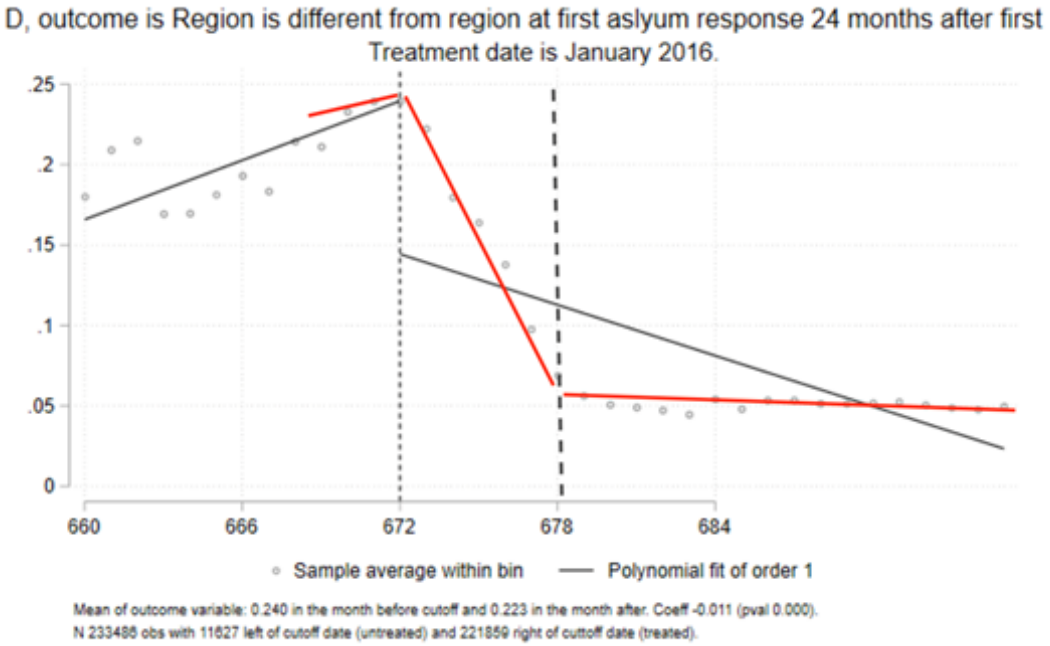
Figure 3



4.2 Stage I: Kink Regression Specification

The Policy variation creates a "kink" in the relationship between refugee mobility and asylum grant date. The kink arises because the policy was announced in August 2016 but applied retroactively to refugees granted asylum after January 2016. the policy generates two different kink points: one at january 1, 2016, and one at august 1, 2016. The first kink, around the date the policy was retroactively made effective, reflects the fact that refugees who received asylum after january 1, 2016 have a linearly decreasing period after receiving asylum in which they can move freely. Since refugees did not anticipate this policy, this means that some refugees who intended to move later did not move because they were blocked by the policy. This kink is very clear in the data (see the Figure 4).

Figure 4



We estimate the following specification:

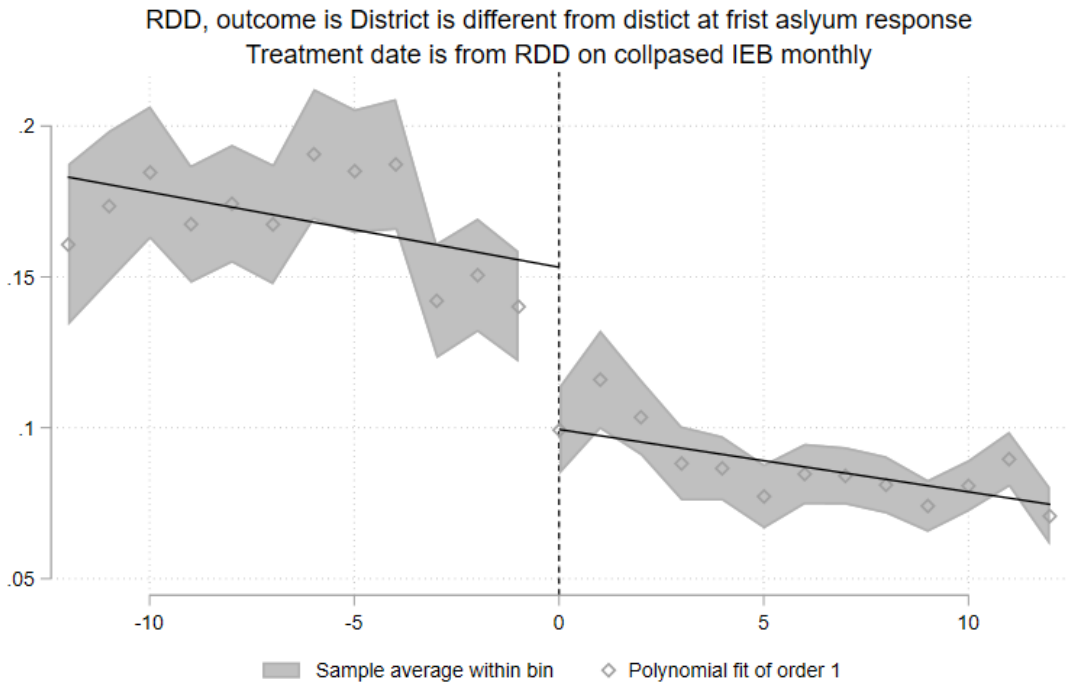
$$Y = \alpha_0 + \alpha_1(v-k) + \beta_1 D \cdot (v-k) + \alpha_2(v-k)^2 + \beta_2 D \cdot (v-k)^2 + \varepsilon \tag{2}$$

where Y is the outcome variable of interest. v is the running variable. k is the kink point. D is an indicator that allows the slopes to change at the kink.

4.3 Stage 2: Regression Discontinuity Specification

While the precise dates at which the state-level restrictions went into effect are not available for all states, we use a data-driven approach to identify them, following the literature on identifying cutoffs in regression discontinuity analyses of college admissions where SAT cutoffs are inferred from the data (**hoekstra2009**, **mountjoy2024**). We validate the treatment dates by interviews with public servants and policy makers, as well as multiple independent data sources: A. Administrative data on all refugees in Germany provided by The Federal Office for Migration and Refugees (BAMF); B. Survey data IAB-BAMF-SOEP. The RD analysis based on districts within federal states where the residence obligation was reinforced at the district level. We use a bandwidth of three months before and after the local implementation date to identify the treatment effect.

Figure 5



5 Preliminary results

Our preliminary results suggest that the federal mobility restriction dramatically curtailed refugees from moving across states. The effects are large enough to observe in simple visualizations of the raw data, and the pattern by date of asylum response corresponds exactly to what one would expect based on the policy. Our finding indicate that the federal mobility restriction substantially reduced the employment of impacted refugees (see Figure 6. However, the within-state mobility restrictions did not appear to have significant effects as seen in Figure 7. This suggests that restrictions were compensated for by changes in commuting behavior or choice of employer, outcomes that we are actively investigating and will report in a subsequent draft.

Figure 6

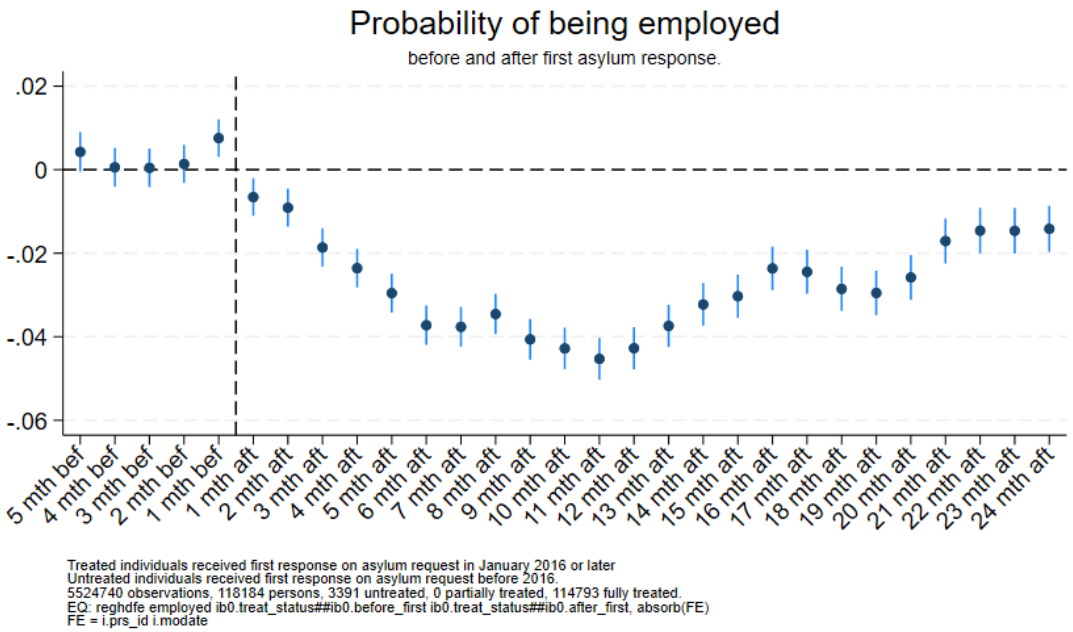
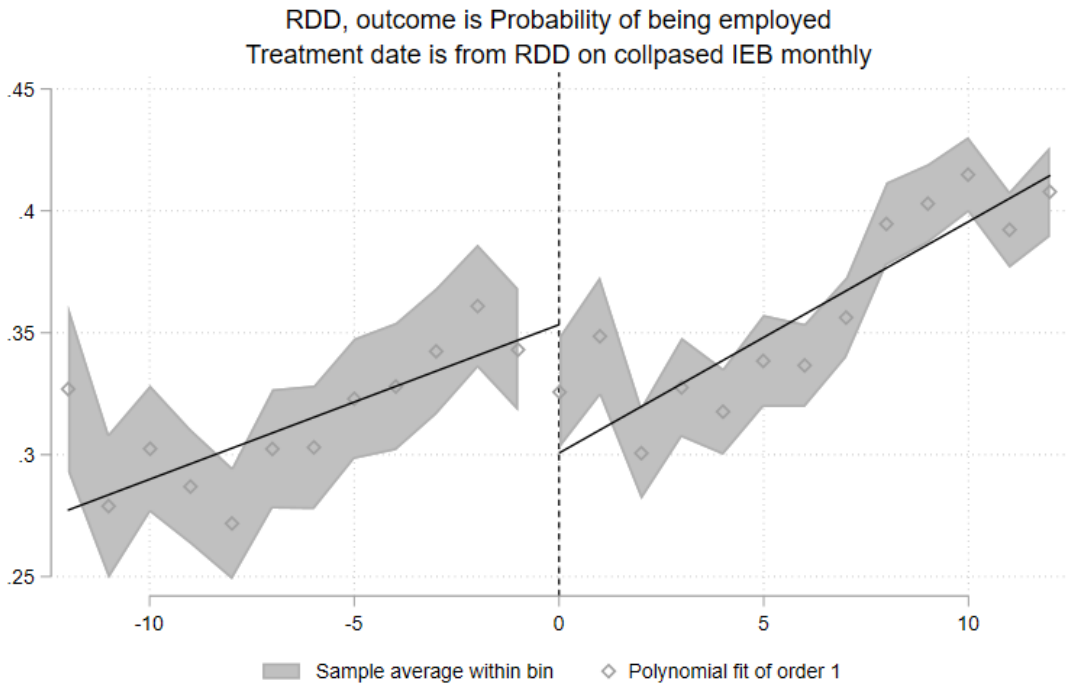


Figure 7



6 Next steps

In further steps, we plan to estimate the heterogeneous effects of mobility restrictions and assess how binding and detrimental mobility restrictions were on refugee labor market outcomes across regions and subgroups. Furthermore, we plan to estimate or calibrate a structural model of refugee location choice by combining estimates' results with data on mobility patterns, local refugee wage premia, and other regional characteristics. This allows us to: Simulate the spatial distribution of refugees in the absence of mobility restrictions as well as under alternative policies. In addition to that we can quantify the welfare cost of mobility restrictions on refugees.

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