Gendered Neighborhood Networks and the Labor Market Integration of Female Refugees

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Abstract

In being female and from a different ethnic background than the host society, female refugees experience not only gender- and ethnicity-based obstacles, but also an additional dimension of social inequality due to the intersection of these two categories. Initial studies prove this claim in showing that only 30% of the female refugees entered employment seven years after their arrival in Germany, whereas 70% of male refugees did so in the same period. To examine potential mechanisms to overcomes those obstacles, we focus on the potentials of high-value port-of-entry neighborhoods as information providers and role-model mediators. We combine individual-level administrative data on female refugees from the Federal Employment Agency with georeferenced information on gendered employment rates for natives, foreigners, and refugees on the level of 1km x 1km grid cells. In exploiting the variation in wider neighborhoods and between grid cells, we estimate the causal effect of full-time employment rates of female neighbors on female refugees' employment probability. Initial results show a positive effect of full-time employment of female neighbors in the first three years after arrival in Germany.

Keywords: intersectionality, migration, integration, refugees, neighborhoods, geo-referenced data

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1. Introduction

Literature on intersectionality has shown that gender and ethnicity are not only two separate dimensions, but jointly constitute an additional dimension of social inequality (Browne and Misra, 2003; Cho et al., 2013). While being rooted in the experiences of U.S. Black women (Collins, 2022), the concept of intersectionality also helps to understand labor market related obstacles experienced by women of color in Europe (Di Stasio and Larsen, 2020; Fernández-Reino et al., 2023).

This paper starts with acknowledging the labor market related obstacles of female refugees in Germany. Between 2015 and 2018, over 1.5 million refugees from the Middle East came to Germany, among which 40 percent were female in 2017 (Bundesamt für Migration und Flüchtlinge, 2018, pp.88). Adding up to the traumatizing experiences in their home country and on their flight, refugee women show lower education levels than male refugees and are over represented among those lacking basic qualifications (Liebig and Tronstad, 2018). Moreover, institutional barriers such as a lack of effective family policy instruments, lower contact with natives, but also discrimination against female Muslims are likely to mitigate the labor market integration of female refugees (Fendel and Yildiz, 2020; Fernández-Reino et al., 2023; Salikutluk and Menke, 2021). Due to the intersection of these gender- and ethnicity-based obstacles, only 30% of the female refugees entered employment seven years after their arrival in Germany, whereas 70% of male refugees did so in the same period (Brücker et al., 2023).

While previous research stresses the importance of effective institution-specific procedures, e.g., family policy instruments or short processing times of asylum proposals, less is known about the potential of local communities for the integration process of incoming refugees. In Germany, refugees are assigned a place of residence typically following a quota designed to distribute newcomers evenly across the territory (Kanas et al., 2022). Even though such dispersal policies provide a systematical way to deal with incoming refugees, they neglect that local networks such as affluent neighborhoods can provide valuable information and contacts especially for individuals not having work-related contacts (Andersson et al., 2018). In representing the port-of-entry into the host society, the local neighborhood cannot only convey

beneficial network information on job offers (Granovetter, 1985; Pichler and Wallace, 2009; Nicodemo and García, 2015) but also serve as a mediator for work-related gender role models (Andersson et al., 2018; Mota et al., 2016).

Especially for female refugees, beneficial neighborhood's constitutions may compensate gender- and ethnicity-based obstacles. Inter-ethnic contact, for instance, can foster language acquisition, reduce job search durations and help to find higher-quality jobs (Chiswick and Miller, 2015; Kanas et al., 2012; Lancee and Hartung, 2012; Ooka and Wellman, 2006; van Tubergen, 2011). Similiarly, inter-ethnic contact to other women might affect the refugees women's evaluation of their own ability for labor market related work and increases their labor market attachment (Festinger, 1954; Mota et al., 2016).

To estimate the causal effect of port-of-entry neighborhood characteristics on female refugee labor market integration, we focus on lagged female employment rates in small-scaled neighborhoods. We combine rich individual administrative data with georeferenced administrative data from the Federal Employment Agency that provides gendered employment rates for natives, foreigners, and refugees on 1×1km grid cells (GridAB). The GridAB provides neighborhood information for the whole of Germany, consists of 200,000 cells annually, and covers the years from 2000 to 2017, encompassing the critical years of the latest refugee immigration. This unique data allows us to not only exploit variation within local labor markets, but also employ a causal estimation technique of Bayer et al. (2008). Bayer et al. (2008) exploit the variation between the wider local neighborhood, i.e, the Census tract, and the local neighborhood, i.e., the block, itself. As we also only compare female refugees in the same wider neighborhood, i.e., women living in the same 2×2km area but not the same grid cell, we isolate smaller-scale neighborhood effects, which was not possible before for research only using broader-scale data such as county information. The validity of this identification strategy relies on the assumption that individuals can choose their wider neighborhood, but the thinness of the housing market at a 1×1 km scale prevents sorting into specific grid cells. Moreover, we assume that female refugees are not able to identify grid-by-grid variation in neighborhood characteristics at the time of lease.

Results show positive effects of fulltime employment of female neighbors neighborhood on the female refugees' employment probability in the first three years after arrival in Germany. Conversely, employment of other refugees in the same neighborhood impedes female refugees' labor market integration.

The study highlights the potential of port-of-entry neighborhoods for fostering female refugees' labor market integration. Allocation policies of refugees should not only consider the local economy but also narrower spatial context effects such as the port-of-entry neighborhood.

2. Theory

The characteristics, attitudes, and behavior of neighbors affect individuals' choices and labor market position in various ways, e.g., imitation, learning, social pressure, or information sharing (Mayer and Jencks, 1989; Topa, 2001). For the labor market integration of female refugees, the social network and local role models may explain differences in the integration speed of those women.

Social network

Due to the nature of forced migration, refugees often lack the resources to make a start in the host societies. They are thus more dependent on the help of others already residing there (Ager and Strang, 2008). Social network theory (Lin, 1999) suggests that social interactions with others provide access to their material and immaterial resources that form social capital (Flap and Völker, 2004). This social capital can influence social and economic integration (Ager and Strang, 2008; Cheung and Phillimore, 2014) and particularly helpful in finding employment (Granovetter, 1985).

The literature stresses the vital distinction between connections to other co-ethnics (*bonding capital*) or nationals of the host society (*bridging capital*) (see, e.g., Nannestad et al., 2008). Newly arrived refugees invest in bonding capital while bridging capital accumulates over time in the host country (El-Bialy et al., 2023). While co-ethnic networks can provide newcomers valuable information and psychological support or speed up employment (Elliott, 2001; Gërxhani and Kosyakova, 2022), they can also hinder finding high-quality jobs and integrating

into the host society (see, e.g., Kalter and Kogan, 2014; **?**; van Tubergen, 2011, 2014). Since crises often cause large refugee migration waves, the timing of arrival and whether there are established ethnic communities in the host country seem to play a crucial role here. Bonds to co-ethnic peers arriving simultaneously are less helpful in finding a job since there is little local knowledge within the network and job competition is high (Beaman, 2012), while contacts with immigrants who have been in the country for a longer time are more helpful in finding a job.

Contacts with natives, on the other hand, can foster language acquisition, a critical factor in social and economic integration (see, e.g., Dustmann and Fabbri, 2003; Chiswick and Miller, 2015; Kanas et al., 2022). Besides improving language skills, inter-ethnic ties also directly improve the labor market integration of migrants in reducing the duration of unemployment (Lancee and Hartung, 2012). Because natives are more often employed and occupy high-status jobs, they can help refugees find higher-quality jobs (Ooka and Wellman, 2006; van Tubergen, 2011; Kanas et al., 2012).

Individuals often form homogeneous networks concerning ethnicity or other characteristics like gender ("homophily" McPherson et al., 2001). Because female refugees are more often unemployed or often have low-income jobs, searching for employment using inter-ethnic contacts is particularly attractive to this group. Accordingly, Ooka and Wellman (2006, 17) report higher mean wages for females who utilized inter-ethnic networks in Canada. Because of similar characteristics or living conditions, referrals of female refugees are also easier for female natives [LIT].

Social network theory suggests that residents can benefit from high employment rates in their neighborhood as employed neighbors provide information on job opportunities and hiring practices at low cost (Gesthuizen et al., 2008; Granovetter, 1985; Jahn and Neugart, 2020; Topa, 2001). As employed neighbors do not need the information on job opportunities for themselves, they can pass the information to their local network (Topa, 2001). Additionally, information diffusion also works the other way around: Employed neighbors can pass information about suitable applicants in their neighborhood to the employer. In using social ties

and employee referrals, the employer can reduce uncertainty about the quality of the worker (Montgomery, 1991).

For refugees, informal information on job opportunities from neighbors should be especially beneficial because both mechanisms gain in relative relevance: First, language barriers (Bähr et al., 2019) and the lack of efficient other informal search channels such as family and friends [LIT] aggravate the job search process. Second, uncertainty about the refugee's skills and statistical discrimination reduce the chances of getting a job via formal search channels for the refugee (Di Stasio et al., 2021). Research shows that female refugees wearing a hijab experience even a higher discrimination on the job market than male refugees (Fernández-Reino et al., 2023).

Neighborhoods can provide valuable information and contacts especially for individuals not having work-related contacts (Andersson et al., 2018). Similar to other informal channels, neighborhood contacts might thwart the previously mentioned obstacles SOME LIT ABOUT NEIGHBORHOOD CONTACT THEORY MISSING.

(Gender) Rolemodels

Literature has shown that female refugees have significantly smaller and sometimes even non-existent interethnic networks. Hence, only considering social networks as potential mechanism of how neighborhood employment could foster female refugee labor market integration falls to short. Besides offering a potential informal job search network, neighborhoods can also affect female refugees' labor market participation in exposing them to different work and gender norms. To explain this mechanism in greater detail, we refer to social comparison theory.

Social comparison theory stresses that an individual's evaluation of her own abilities is situation-specific and depend on the performance of others, especially when the objective reality is ambiguous (Festinger, 1954). Such external referents are others sharing (ascriptive) characteristics, e.g., the same gender, with the individual herself. If those external referents exhibit characteristics similar to the individual but a different ability or performance, internal pressure to uniformity increases (Festinger, 1954). To reduce such a pressure, the individual either

changes her own position to become more similar to the others or to change the opinions of the others.

Gender-specific research on social comparisons in the labor market mainly focuses on wages. However, results are mixed. In conducting lab experiments, Bylsma and Major (1994) find that female students value same-gender pay information higher than than cross-gender comparison information in lab experiments. In contrast, a factorial survey of Auspurg et al. (2017) find no evidence for same-gender referents in the evaluation of fair wages when using a general population survey. While these empirical papers excel with a high internal validity in using experimental methods, less is known about the external validity of these results and how social comparison mechanisms might even affect the employment-related decisions of women.

The labor market participation of female refugees is a well-suited and real-world application to test the existence of such social comparison mechanisms. When coming to Germany, refugees are newly confronted with the German society and search for suitable external referents to evaluate their own ability. In doing this, they are likely to compare themselves to those most similar to themselves in this society, e.g., same-gender Germans. According to social comparison theory, a divergence between the own performance and the one of the others, e.g. female neighbors actively participating in the labor market, induces a re-evaluation of the individuals own gendered (labor market) position.

For male refugees, first research on refugees' division of housework shows that more interethnic contacts of the husband facilitate more egalitarian division of housework (Kosyakova and Kulic, 2022). Conversely, more interethnic contact or–more generally–more exposure to gender-egalitarian behavior of female refugees might similarly affect the women's evaluation of their own ability for labor market related work and increases

While female refugees can experience gender-egalitarian working norms in several occasions and localities of the host society, some are more likely than others. Female refugees have substantially less interethnic contacts than male refugees, especially when they are not in employed work (LIT). Irrespective to effective contact frequency, one dimension along which they could observe local working norms is the neighborhood. Neighborhood research stresses

that neighbors are able to set social standards or create social institutions (Mayer and Jencks, 1989). While being exposed to their neighbors in their daily routines and lives, individuals might not need direct contact to grasp a local norm. For immigrants in general, research shows that the so called port-of-entry neighborhood can, indeed, mediate work-related role models (Andersson et al., 2018; Mota et al., 2016).

Taken together and irrespective to the exact mechanism, we expect that a higher share of employed female neighbors lead to a higher probability to find a job for female refuges.

3. Data

4. Empirical strategy

In the identification of a causal effect of high female employment on the employment probability of female refuges, we face two types of bias.

First, local labor markets differ in the employment probability for females. If female refuges settle (or relocate) in a local labor market with good employment chances for females, the probability to find a job is larger than for a female refugee in a tighter labor market. Even though the initial allocation of refuges to counties is exogenous due to the Koenigsberger Schluessel, subsequent moves and relocations are possible before we first observe the women in our data. Our small scale grid data enables us to tackle this bias on the county level: By using county fixed effects and exploit within-counties variation, we compare only labor market outcomes of women living in the same county.

Second, our model might suffer from selection bias because individuals can choose where they live. In general, individuals prefer neighborhoods with similar characteristics to their own (Durlauf, 2004; ?; ?). This preference towards homophily would imply that female refuges with a high work aspiration have a preference for living in neighborhoods with a high share of employed females. If these women are able to gain ex ante information on the aggregate characteristics of particular neighborhoods and achieve to relocate into these neighborhoods, our estimated effect would be biased. However, this scenario is unlikely for several reasons: ("port-of-entry", they take what they get to quickly leave the crowded refugee shelter?; male

employment maybe more important?? tied movers) when focusing on the first residence

Andersson et al. use IV approach with rental occupancy and household turnover rates as instruments (Andersson et al., 2018, for Sweden see, e.g.,), we are tackling the endogeneity issues usually plaguing neighborhood analyses (Musterd et al., 2019).

Nevertheless, we tackle this potential bias with two strategies.

As a first strategy we match on observables assuming the unobserved characteristics to be similar for otherwise similar women.

As an additional strategy, we rely on a identification first introduced by Bayer et al. (2008). They identify the causal effect of neighborhood referrals on labor market outcomes. The causal strategy builds on the assumption that individuals are able to choose housing in a census tract but are not able to choose a specific block on a finer scale in this tract. If this assumption holds, living in a certain block is random after controlling for the average residents' characteristics in the larger census tract. Similar to Jahn and Neugart (2020), we adapt the strategy of Bayer, Ross and Topa (2008) to the German context and use 1×1 kilometer grid cell instead of blocks. The eight surrounding grid cells serve as the larger residential area, which are census tracts in the paper of Bayer, Ross and Topa (2008). The key assumption for a consistent and unbiased estimate is that we observe no correlation in unobserved factors of workers living in a 1×1 kilometer grid cell with a larger residential area. The nature of our grid cell data makes this assumption highly plausible. The main advantage of grid cells compared to tracts and blocks is that these grids do not follow any administrative frontiers or borders. Hence, individuals do not know in which neighborhood they are located in and are not able to identify grid-by-grid variation in neighborhood characteristics at the time of lease. Therefore, relocation into a specific grid cell based on aggregate grid cell characteristics of this single grid cell is unlikely - especially when considering the small spatial area of 1×1 kilometer grid cells and the tightness of the German housing market (see Jahn and Neugart, 2020, p. 101825).

Still, the neighborhood effect could be biased if we cannot control enough characteristics of the surrounding grid cells to obtain a causal estimate. Therefore, we employ an even stricter

Figure 1: Difference to surrounding neighborhoods
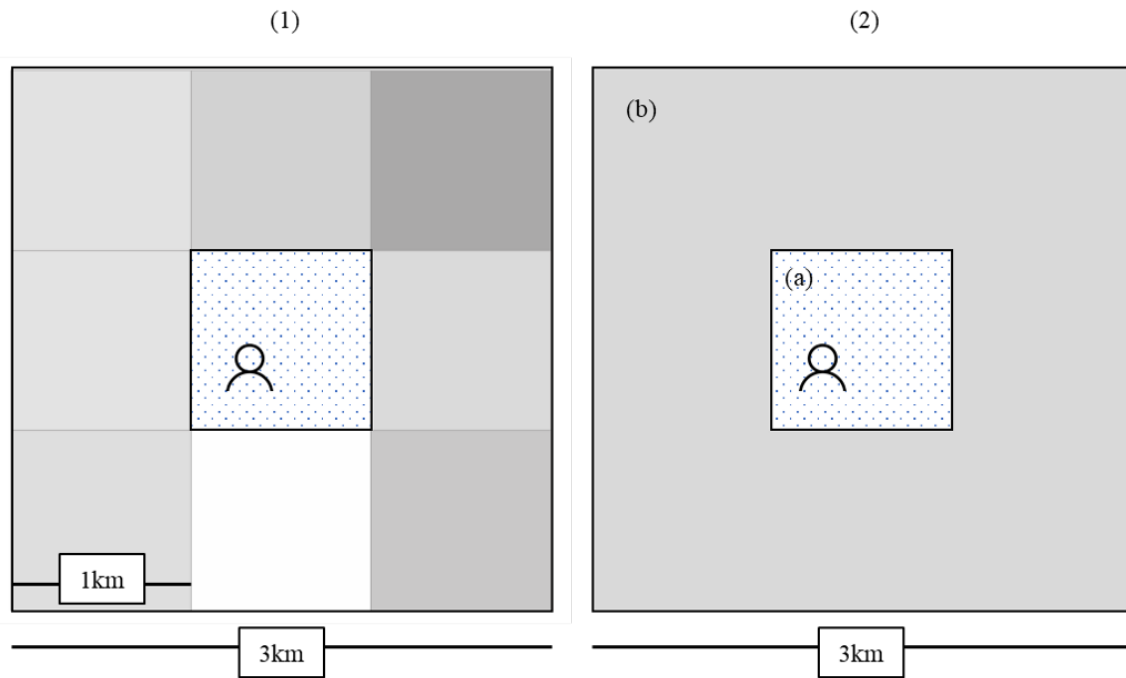
research design in employing wider neighborhood fixed effects. In only comparing refugee women living in the same 2 km^2 area, we net out all constant observable and unobservable differences between women in different local areas.

[Test whether worker sort into neighborhoods based on observables once we control for selection into wider neighboods necessary]

Minor things: We solve the reflection problem of ecological data (Manski, 1995) in exploiting the time series structure of the data and use past female labor force participation in the port-of-entry grid cells.

5. Results

5.1. Matching

The estimations displayed in Figure 3 control for education, presence of children, number of relocations (county level), mean neighborhood income, number of foreigners, share of employed refugees in t-1, mean neighborhood age, east/west, county gdp, county unemployment quota; labor market area fixed effects. Treatment definition: Female employment one standard deviation above county average.

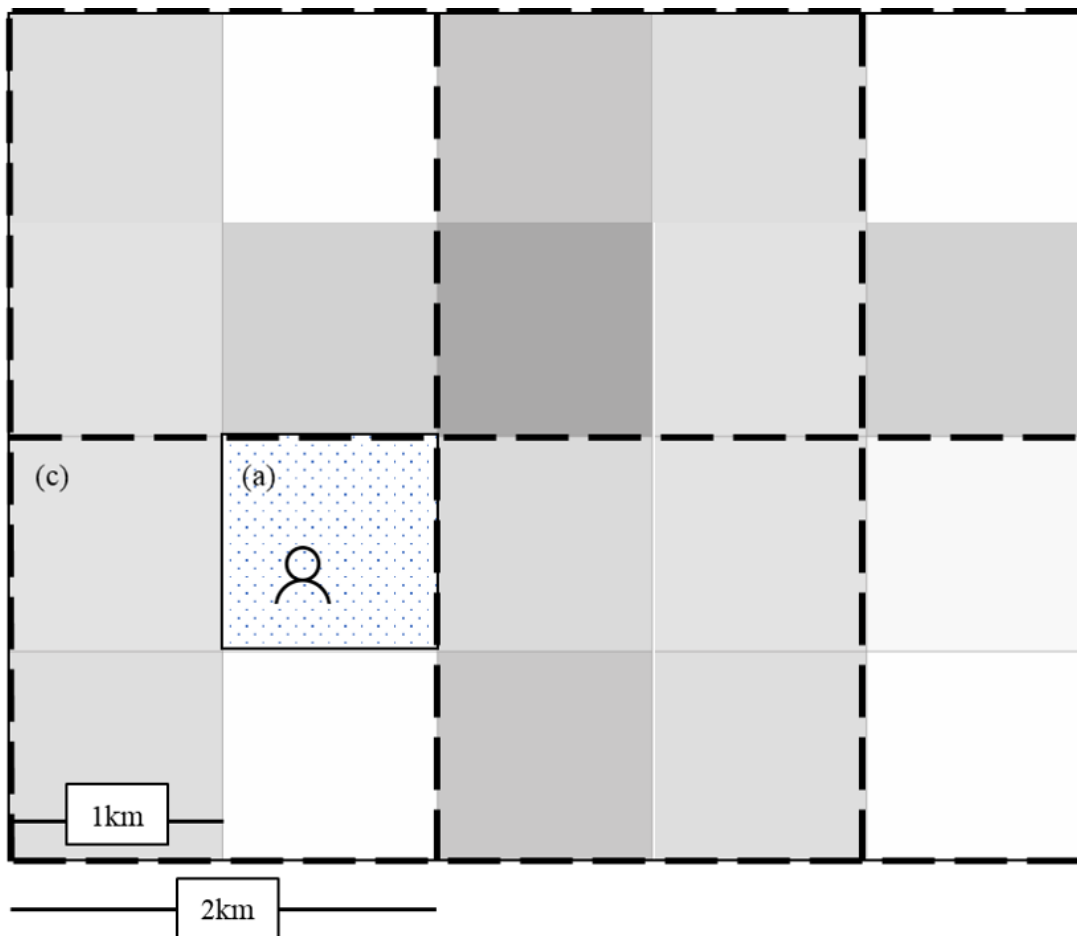Figure 2: Wider neighborhood fixed effects

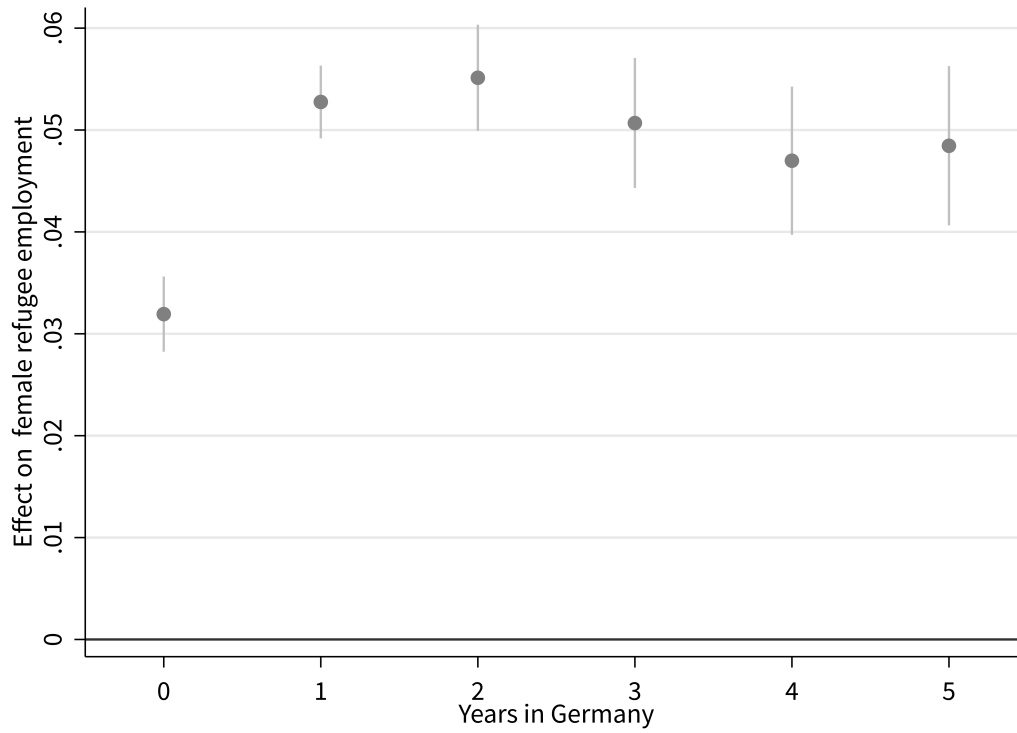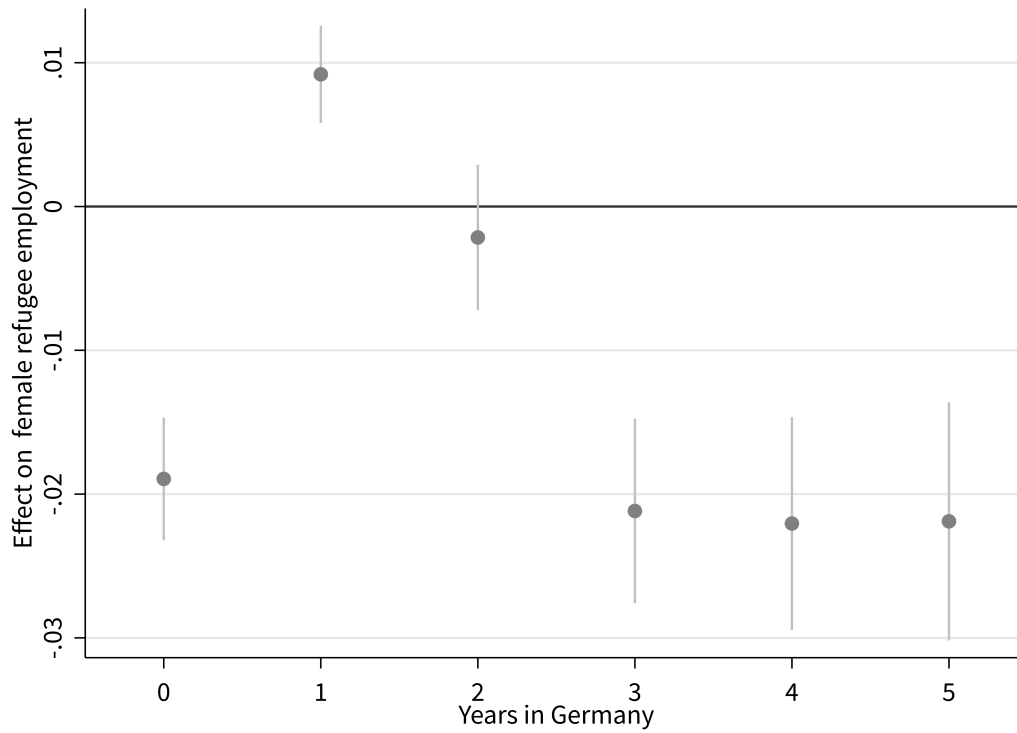Figure 3: Results for share of full-time employed females in the neighborhood

Figure 4: Results for share of full-time employed refugees in the neighborhood

The estimations displayed in Figure 4 control for education, presence of children, number of relocations (county level), mean neighborhood income, number of foreigners, mean neighborhood age, east/west, county gdp, county unemployment quota, labor market area fixed effects. Treatment definition: Refugee employment one standard deviation above county average.

5.2. Wider neighborhood FE

	(1)	(2)	(3)
	Diff. to surrounding	Diff. to surrounding	NH FE
Diff. share ft. employed female neighbors	0.0080***	0.0256***	
	(0.003)	(0.003)	
Share ft. employed female neighbors			0.2376***
			(0.008)
Time since arrival	0.0148***	0.0149***	0.0144***
	(0.000)	(0.000)	(0.000)
Share of refugee neighbors, t-1	0.0137***	0.0154***	-0.0074***
	(0.001)	(0.001)	(0.001)
Constant	0.3000***	0.3497***	0.3354***
	(0.008)	(0.009)	(0.013)
NH fixed effects	No	No	Yes
Individual controls	yes	Yes	Yes
NH controls	Yes	Yes	Yes
Region controls	No	Yes	No
Number of observations	861115	737218	967318

Standard errors in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

	(1)	(2)	(3)
	Diff. to surrounding	Diff. to surrounding	NH FE
High share of ft-employed female neighbors	not right	not right	0.0068***
	(0.001)	(0.001)	(0.001)
Time since arrival	0.0147***	0.0148***	0.0143***
	(0.000)	(0.000)	(0.000)
Share of refugee neighbors, t-1	0.0131***	0.0147***	-0.0079***
	(0.001)	(0.001)	(0.001)
Constant	0.3126***	0.3649***	0.4477***
	(0.009)	(0.009)	(0.013)
NH fixed effects	No	No	Yes
Individual controls	yes	Yes	Yes
NH controls	Yes	Yes	Yes
Region controls	No	Yes	Yes
Number of observations	876355	751659	967351

Standard errors in parentheses

$^*\ p < 0.1$, $^{**}\ p < 0.05$, $^{***}\ p < 0.01$

6. Conclusion

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Online Appendix: Additional results