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2025

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ECONOMIC RESEARCH FORUM
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Understanding the gender employment gap: A cross-country comparison of Syrian Refugees in Lebanon, Turkey, and Germany

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Abstract

The rise in conflicts over the past decade has led to a significant increase in refugees, particularly due to the Syrian war, which has displaced over 5 million people. Refugee women, who often face the added burden of unpaid care work, are at an economic disadvantage compared to men, with lower employment rates and wages. While much research has focused on the employment gaps between immigrants and natives, less attention has been paid to the refugee gender gap. This study examines the gender employment gap among refugees in Lebanon, Turkey, and Germany, using data from surveys, including the Transnational Perspectives on Migration and Integration (TRANSMIT) and the IAB-BAMF-SOEP refugee samples. We analyze pre-migration factors (e.g., education, work experience) and post-migration conditions (e.g., language proficiency, legal residency, childcare). Results show that gender gap is smaller in Germany compared to Lebanon and Turkey In Germany, *post-migration human capital*—specifically language skills and participation in integration programs—is essential in narrowing the gender gap. In contrast, in Lebanon and Turkey, where informal labor markets are more prevalent, *pre-migration human capital*, including education and work experience, plays a more prominent role. This suggests that the relevance of human capital differs across destination countries, emphasizing the need for tailored integration strategies.

Keywords: Asylum, refugees, gender gap, human capital, IAB-BAMF-SOEP Survey of Refugees, TRANSMIT, decomposition analysis, comparative analysis, integration.
JEL codes: C14, C18, F22, J15, J16

1. Introduction

The number and intensity of conflicts over the past decade have resulted in an unprecedented rise in individuals seeking humanitarian protection abroad. Notably, the war in Syria has forced more than 5 million people to flee their homes and seek refuge in neighboring countries such as Lebanon, Turkey, and Jordan, as well as in European countries like Germany (UNHCR, 2024). Receiving societies face the challenge of integrating refugees into their labor markets. While men and women globally seek refuge in similar numbers, women are more likely to travel with their families and take on most of the unpaid care work, placing them at an economic disadvantage (Gundacker et al., 2024; Brücker et al., 2020; Ehab et al., 2024). Refugee women face compounded disadvantages related to their immigration status and forced migration (Kosyakova & Kogan, 2022), a situation described by Liebig and Tronstad (2018) as the "triple disadvantage." Consequently, refugee women are less likely than their male counterparts to be in paid employment and tend to receive lower wages on average (Bakker et al., 2017; Kosyakova et al., 2023).

Most literature focuses on employment gaps between immigrants and natives or compares different immigrant groups, with little known about the specifics of the refugee gender gap in receiving labor markets. Kosyakova et al. (2023) decomposed the refugee gender gap in Germany, attributing it to a lower resource endowment among refugee women, who typically possess human capital that requires significant post-migration investment. Understanding the mechanisms that explain these gaps is essential, particularly from a cross-country perspective. This paper extends the analysis to Lebanon, Turkey, and Germany to examine gender employment gaps in these countries. Our research question is: What are the various mechanisms and explanations for the differing gender employment gap across the countries?

This study investigates gender employment gaps among refugees in Lebanon, Turkey, and Germany using novel household survey data. Data sources include longitudinal household and individual surveys conducted in Lebanon, Turkey, and Germany, specifically the Transnational Perspectives on Migration and Integration (TRANSMIT) data in Turkey from 2020 to 2022 and in Lebanon from 2019 to 2022, as well as the IAB-BAMF-SOEP refugee samples in Germany from 2016 to 2022 (Gundacker et al., 2024; Brücker et al., 2017). The variables span pre-migration characteristics such as educational attainment and work experience, to post-migration factors like labor market conditions, legal residency status, access to childcare, and health outcomes. We use the Oaxaca-Blinder decomposition analysis to identify the factors contributing to these gaps in each country.

Our contribution to the literature is two-fold. First, we compare the gender gap in labor market integration of Syrian refugees in three destination countries, that differ in political and legal situation of refugees, but also in patterns of gender inequalities of the majority population. Second, we analyse the factors that contribute to such a difference, namely pre-migration characteristics (selection into countries), destination-country resource accumulation, and regional characteristics. This cross-country comparison for Syrian refugees was not done before in the literature and could provide useful insights on their integration in various labor markets.

Preliminary results reveal larger gender gaps in Lebanon and Turkey compared to Germany. Human capital, both pre-migration and post-migration, is less significant in explaining gender employment gaps in Lebanon and Turkey, likely due to higher economic pressure and lack of support schemes (Demirci & Kirdar, 2023; Tumen, 2023). Women in these countries, mostly employed in informal and precarious jobs, experience a strong necessity to contribute to household income regardless of prior experience and skill level. Few Syrians in Lebanon and Turkey invest in their destination-country-specific human capital, making this factor negligible for the refugee gender gap. Health aspects and unpaid care work are similarly important across all countries, while social networks significantly contribute to the employment gap only in Germany. These findings suggest that local and individual conditions significantly influence labor market participation, emphasizing the need for a gender-sensitive analysis of refugee employment outcomes. Expanding healthcare, childcare, and incentives for human capital investment are necessary to reduce gender gaps in refugee employment. These measures are likely to yield long-term benefits by improving the economic integration of refugee women.

2. Syrian Refugees in Lebanon, Turkey and Germany from Population Insights to Labor Market Situation

2.1. The Syrian Refugee Population

This subsection examines the recent humanitarian migration of Syrians into Lebanon, Turkey, and Germany, focusing on the scale of refugee populations and their selection patterns.

Lebanon hosts the highest number of refugees globally in relation to its population size and geographic area, with government estimates placing the Syrian refugee population at 1.5 million. The country's ongoing economic collapse has exacerbated hardships for both Lebanese citizens and refugees, forcing displaced families to make difficult choices to survive. Refugees frequently face food insecurity, delays in accessing urgent medical care, and the necessity of child labor over education, underscoring the severity of their vulnerability. These compounded crises make it critical to examine gender disparities in the labor market, particularly to address the heightened vulnerabilities faced by women (UNHCR, 2024).

Turkey began admitting Syrian refugees in April 2011 through an "open door policy" that remained in effect until 2016. This policy, driven by humanitarian considerations and initial expectations of a short-lived conflict, contributed to a rapid increase in the refugee population, which grew from 1.5 million in 2014 to 2.8 million by 2016. Today, Turkey remains the largest destination country for Syrian refugees, with over 3 million officially registered and an estimated 3.2 million total refugees. The demographic profile of this population highlights significant policy and assistance challenges: 45.8 percent are under 18, while 60.8 percent fall within the working-age range of 15 to 64 years (Okyay, 2017).

Germany became the primary destination for asylum-seekers in the EU during the peak of the 2015 refugee movements. This was partly due to Germany's decision to suspend the Dublin regulation for Syrian nationals, resulting in the admission of 890,000 asylum-seekers in 2015 and 280,000 in 2016. Syrian nationals accounted for 36.5 percent of the 1.16 million first-time

asylum applications during these two years (Okyay, 2017). Germany's refugee population skewed young, with over 30 percent of applicants under 18 and more than 70 percent of working age. Between 2014 and 2022, Germany received 2.3 million first-time asylum applications, representing 46 percent of all applications filed within the EU during this period. By the end of 2021, the number of female refugees of working age had risen to 455,000, accounting for one-third of Germany's working-age refugee population (Kosyakova et al., 2023).

Notably, the selection of refugees into these three countries differs significantly. Gundacker et al. (2024) find that Syrian refugees in Germany were predominantly male in the early years of the war, often traveling alone and possessing higher levels of education compared to their counterparts in Lebanon. Although differences in educational background between Syrian refugees in Germany and Turkey were less pronounced, they were still significant. By contrast, Syrian refugee migration to Lebanon and Turkey was marked by gender parity, with most refugees arriving as families. These selection patterns are essential for understanding variations in refugee employment outcomes across the three countries.

2.2. The labor market situation of the Syrian refugees from a gender perspective

Refugees face unique challenges in labor market integration compared to other migrants. Firstly, they are typically less prepared for migration, often arriving with limited information and without secure housing or employment. Additionally, they usually have smaller personal and professional networks, which further complicates their settlement (Kosyakova & Kogan, 2022). Refugees also endure significant psychological stress from experiences of war, persecution, and displacement, which can hinder their ability to integrate into the labor market (Walther et al., 2020). Secondly, legal and bureaucratic hurdles, such as employment bans, lengthy asylum processes, and residency requirements, delay their entry into the workforce (Kosyakova & Brenzel, 2020; Marbach et al., 2018). Even once these restrictions are lifted, refugees may still face long-term integration challenges, such as the inability to build work experience or professional networks (Brücker et al., 2024; Marbach et al., 2018). Thirdly, refugees often lack sufficient language skills, which they must acquire before gaining meaningful employment (Kosyakova et al., 2022). Their qualifications and professional experiences are frequently not transferable to the labor markets of their destination countries, requiring additional retraining or post-qualification efforts, which further delays their integration (Kosyakova & Kogan, 2022).

Refugee women face additional challenges due to their immigration status and forced migration, often referred to as a "triple disadvantage." As a result, they are less likely than men to be employed and tend to earn lower wages (Liebig & Tronstad, 2018). In Lebanon, Syrian women are 6 times less likely to be working compared to Syrian men, with labor force participation estimated at 10% for women, compared to 65% for men in 2019 (UN WOMEN 2019).

The employment situation of Syrian refugees in Turkey presents significant gender disparities, particularly in terms of labor market participation. The employment gap between native and refugee populations highlights substantial differences based on gender. Employment rates are higher among natives, with 69% of native men and 22% of native women employed, compared

to 62% of refugee men and just 6% of refugee women. Refugee men are more likely to work in manufacturing, while refugee women are disproportionately employed in agriculture, with fewer working in services. Informal employment is more common among refugees, with 99% of married men and 98% of women employed informally, compared to 19% of married native men and 38% of native women (Demirci & Kirdar, 2023). Despite variations in the age groups studied, the employment rate for women remains low. Syrian women are largely excluded from the formal labor market in Turkey, with only 3,047 of the 34,573 work permits issued to Syrians in 2018 granted to women. Additionally, Syrian women face some of the highest female NEET (Not in Education, Employment, or Training) rates globally, nearly double those of countries like India and Bangladesh. The male NEET rate is significantly lower, likely due to early engagement in employment, which may limit their career development (Pinedo-Caro, 2020).

Several factors contribute to the gender gap in employment among Syrian refugees. One significant reason is the lower wages earned by women compared to men. The unadjusted gender wage gap for Syrian refugees is 23.4% monthly and 9.4% hourly, both of which are higher than the wage gaps experienced by Turkish citizens. Additionally, the prevalence of informal work arrangements and long working hours makes it difficult for women to maintain a work-life balance, further discouraging their participation in the labor market (Pinedo-Caro, 2020).

In Germany, the labor market integration of Syrian refugees has been marked by significant gender disparities, with male refugees typically achieving much higher employment rates than their female counterparts. Recent studies indicate that while the overall employment rate of Syrian refugees improves with time—reaching 60-61% for those who arrived between 2013 and 2015—gender differences persist. For example, Syrian men exhibit an employment rate of approximately 73% seven years after their arrival, which is close to the average employment rate for German men (81%), while only 29% of Syrian women are employed after the same duration, far below the 72% average for German women (Brücker et al., 2024).

Although the majority of the literature on refugees in Germany is based on the refugees survey IAB-BAMF-SOEP that includes refugees that arrived between 2013 and 2019, Syrian refugees represent the majority of the refugees and their trends are expected to be similar to the average refugee. The gender gap in employment outcomes is attributed to several factors. First, women bear a disproportionate burden of family care responsibilities, particularly for young children, which limits their ability to engage in the labor market. In contrast, male refugees are less encumbered by caregiving duties, enabling them to invest more time in labor market participation. Additionally, female refugees are less likely to invest in acquiring language skills and education compared to their male counterparts, further hindering their integration (Kosyakova et al., 2023). Studies have also highlighted that refugee women, compared to men, were often less likely to be employed in their countries of origin, and their professional skills tend to be in fields that are more heavily regulated in Germany, such as education. This mismatch in qualifications further complicates their integration into the German labor market (Kosyakova et al., 2021).

A dynamic study of refugee labor market integration revealed that initially, the gender gap in employment between male and female refugees is narrow, but over time, it widens significantly. This trend is primarily due to the slow progress of women in securing employment compared to men, despite both groups starting with similar challenges, such as lower educational levels and language barriers. Female refugees, however, experience lower returns on their human and social capital and face compounded challenges related to childcare and domestic responsibilities (Salikutluk & Menke, 2021). These disadvantages are further exacerbated by the fact that women are less likely to participate in language courses or receive institutional support, which are crucial for successful labor market integration.

While both male and female refugees in Germany face barriers to labor market integration, women are disproportionately affected due to a combination of caregiving responsibilities, lower investment in language skills and education, and the challenges of transferring their qualifications. Over time, these factors contribute to a widening gender gap in employment outcomes.

3. Data and Methods

4.1. Data

For our empirical analyses, we rely on the IAB-BAMF-SOEP Survey of Refugees (SOEP, v39, Brücker et al. 2017) for Germany and the TRANSMIT surveys (Gundacker et al., forthcoming) for Lebanon and Turkey. As a large-scale longitudinal representative study, the SOEP-CORE population survey was launched in 1984 and is since then conducted annually among private households in Germany (Kroh et al. 2018). In the aftermath of the refugee migration to Europe in 2015, the IAB, the Research Centre on Migration, Integration, and Asylum of the Federal Office of Migration and Refugees (BAMF-FZ) and the SOEP launched the IAB-BAMF-SOEP Survey of Refugees in 2016 as a further integrated study to the SOEP. The target population is drawn from the Central Register of Foreigners and is representative of refugees arriving to Germany between January 2013 and June 2019 (irrespective of their current legal status) (Brücker et al. 2017; Kroh et al. 2017).

For the analysis of the employment gap of Syrians in Lebanon and Turkey, we rely on the TRANSMIT surveys of Syrian nationals and their neighbors (Gundacker et al., forthcoming 1) collected in both countries by the Berliner Institute for Integration and Migration (BIM, Humboldt University Berlin, Germany) and the Institute for Employment Research (IAB, Nuremberg, Germany. The surveys target a stratified sample of Syrian nationals and their non-Syrian neighbors. For the Syrian samples, the computer-assisted face-to-face interviews (CAPI) were carried out in Arabic. The surveys cover a large battery of items on the respondents' migration biography, employment and education before and after migration, living conditions, wellbeing and health, as well as family context and household composition at the time of the interview. Wherever possible, the items were harmonized with those in the IAB-BAMF-SOEP survey of refugees in Germany.

The surveys targeted nationally representative samples of Syrians and an equally large sample of non-Syrians in the same neighborhoods as a (non-representative) comparison group. In this paper, we use the Syrian samples only. In the absence of registry data for the Syrian population,

the selection of respondents was carried out via multi-stage area sampling and random walk techniques (Bauer, 2014). While this technique has potential drawbacks regarding the representativity of samples (Himelein et al., 2016), random route procedures combined with area sampling represent the most commonly used procedure when sampling hard-to-reach populations in the absence of accessible population data (see e.g. Gallup, 2022, Alrababa'h et al., 2023). Designed as panels, refreshment samples were recruited for respondent dropouts following the same sampling procedure. For our analysis, we use a subsample of Syrians in the third wave of data collection in Turkey and in the fourth wave of data collection in Lebanon collected in 2022. Note that while the data on Syrians in Germany is pooled over waves, this cannot be done for the TRANSMIT panels due to data constraints regarding important items for the analysis. For further details regarding sampling, panel design, and panel attrition, see Gundacker et al. (forthcoming 1).

Macro level indicators on regional labor market characteristics in the three countries under study are compiled from BBSR (2024), the Turkish Statistical Institute (2024) and the Lebanese Central Administration Statistics (2024).

4.2. Sample

For all countries, only Syrian nationals are considered, excluding individuals that were born in the respective destination country. The sample is furthermore restricted to individuals aged 16 to 65 years. For Germany, refugees who came to Germany before 2013 or did not indicate the immigration year are excluded. We restrict the original data to the years 2016 to 2022, to allow the integration of the refugee samples that started in the year 2016. Individuals were dropped if gender was indicated as neither male or female and if no information on their employment status or on their geolocation was available. These data restrictions result in 7,770, 1,230, and 1,240 observations for Lebanon, Turkey, and Germany, respectively. For descriptive statistics, see Tables 1, 2, and 3.

4.3. Variables

The variables can largely be harmonized across the three countries with a few exceptions as detailed below. The dependent variable is the individual employment status at the time of the survey. The variable is equal to one if the person is *currently employed*, referring to any type of paid labor, job training or vocational education. It takes the value zero if the person is unemployed or out of the labor force. For the Oaxaca-Blinder decompositions, we consider the following groups of explanatory factors: pre-migration human capital endowment, post-migration human capital endowment, care work, networks, legal situation, life context, health, demographics, and local conditions.

Pre-migration human capital captures educational level and job experience when the individual was still residing in Syria. *Pre-migration level of education* is a categorical variable reflecting the highest achieved educational certificate aggregated into three levels (low, medium, high). For Turkey and Lebanon, low educational level reflects individuals who never attended school, who do not hold a school certificate or who attended primary school only (ISCED level 1). Medium level refers to lower secondary education (having completed middle school, ISCED level 2). High education reflects everything above, i.e. high school certificate or higher (ISCED level 3 or higher). To account for potentially disrupted educational careers,

we additionally take into account total *Pre-migration years in education* before coming to the destination country (including higher education). To capture pre-migration job experience, we include a dummy whether the individuals was *Employed in Syria before migration* at any point in time. We cannot account for the occupational level as this information is not available for Turkey and Lebanon.

Post-migration human capital entails *Participation in language course* at the time of the survey or before as a dummy as well as destination country language proficiency. To that end, we aggregated the subjective 5-scale evaluation of reading and writing skills. The variable *Good or very good [destination country] language skills* takes the value one if reading and writing skills add up to a score of 8 or more (reflecting good or very good destination country language proficiency), and is zero otherwise. Note that for Lebanon, this variable is not included as Arabic is the official language in both Syria and Lebanon. A final dummy captures the *Participation in (other) post-migration education*. This can refer to current or past job measures, vocational training, or university attendance since arrival in the destination country, unconditional on the successful completion of the educational scheme. For Germany, we furthermore account for the *Recognition* of certificates obtained in Syria, taking the value of 0 if no application for recognition is submitted, 1 if the certificates are fully or partially recognized, 2 if not recognized, and 3 for a pending decision.

Care work reflects aspects of unpaid care work that typically interfere with paid work. We consider whether there is *At least one child aged 0-3 in the household* and whether there are any other *Household members (other than children) requiring care* as two separate dummies to reflect carework necessities. For Lebanon and Turkey, we can additionally control for whether the individual in fact is *In charge of care work in the household*.

Network indicators are only available for Germany and are measured via three variables capturing contact to Germans, contact to individuals from Syria contact to and other immigrants. These binary variables are equal to 1 if the individual had at least weekly contact with one of these groups.

The **legal situation** refers to an individual's legal status in the destination country, captured in a categorical variable. Given the legal contexts varying by country, they are not equal across the three countries. For Germany, the *legal status* variable can take four values: 1 represents holding a residence permit, 2 represents toleration status (so-called "Duldung", i.e., rejected asylum claim but with temporary residence permit because deportation is not possible) or no residence permit, 3 indicates to be in the asylum process, while 4 represents all other options. For Turkey and Lebanon, the categories comprise holding a visa (for work, education, or tourism), running asylum application, an indication by the respondent that no permit is required, and a forth group for all other states. Note that for Turkey and Lebanon, the variable captures the *status at entry* and is not updated for panelists, while the opposite is the case for Germany. We furthermore capture *years since migration* as a continuous variable, with less than five years and 10 years are more being aggregated into two separate categories for Turkey and Lebanon due to data constraints.

Life context aspects largely capture the household situation. The *household composition* variable takes 4 values, namely representing a single household (without spouse and without

children), a single household with minor children, a couple household with no children, and a couple household with minor children. An additional dummy controls for *Other individuals in the household (including adult children)*. We furthermore account for the *Residence of parents*, divided into three groups: at least one parent in the household, at least one parent in the destination country, and no parent in the destination country. These distinctions allow us to assess economic necessities as well as housework duties. Note that carework duties are captured in the care work group. This group also includes parents live in the household and is a categorical variable taking 1 if at least one parent is living in the household, 2 if at least one parent is living in the destination country, and 3 if no parent is living in the destination country.

Health captures the current health status as a 5-scale ordinal variable ranging from very good to very bad.

Demographics include *age* at immigration as a continuous variable and its square term *agesq*.

Local Conditions: To enhance cross-national comparability, we included the following macro variables to capture labor market conditions on the regional level: the total regional labor force participation to proxy the overall state of the regional labor markets and the *Unemployment rate* captured as *women-to-men ratio* to proxy existing gender disparities on regional labor markets. Both variables are lagged by one year and measured on the federal state level in Germany (16 federal states), on the governorate level in Lebanon (9 governorates) and on the province level in Turkey (81 provinces).

To ease interpretation of the Oaxaca-Blinder decomposition results, categorical variables are normalized. Also note that the models control for missing values in the explanatory variables and for implausible values on years of pre-migration exceeding a value of 30. For Turkey and Lebanon, the models furthermore control for inconsistent child information (i.e., if information from the respondent roster does not match information on the household or child rosters collected in the same interview).

Table 1: Descriptive statistics of the Lebanon sample

	Total					Women	Men
	mean	sd	min	max	% missing	mean	mean
Currently employed	0.44	0.50	0	1	0.0	0.14	0.75
Age, in years	33.62	10.55	15	65	0.0	33.26	33.98
Pre-migration level of education: low	0.60	0.49	0	1	1.4	0.59	0.61
Pre-migration level of education: medium	0.27	0.44	0	1	1.4	0.27	0.27
Pre-migration level of education: high	0.13	0.34	0	1	1.4	0.14	0.13
Employed in Syria bef. migration: No	0.68	0.47	0	1	0.0	0.91	0.44
Employed in Syria bef. migration: Yes	0.32	0.46	0	1	0.0	0.08	0.55
Employed in Syria bef. migration: no info	0.01	0.08	0	1	0.0	0.00	0.01
Pre-migration years in education	6.88	4.84	0	24	0.0	6.62	7.15
Participation in Turkish course now or in past					100.0		
Good or very good Turkish skills (reading, writing)					100.0		
Participation in (other) post-migration education	0.03	0.17	0	1	0.0	0.04	0.02
At least one child aged 0-3 in household	0.35	0.48	0	1	0.0	0.34	0.35
Household members (other than children) requiring care	0.01	0.10	0	1	0.1	0.01	0.01
In charge of care work in household	0.55	0.50	0	1	0.0	0.68	0.41
Status at entry: visa (work/educ/tourist)	0.09	0.28	0	1	4.6	0.08	0.10
Status at entry: no permit required	0.23	0.42	0	1	4.6	0.24	0.21
Status at entry: applied for asylum	0.55	0.50	0	1	4.6	0.53	0.57
Status at entry: other	0.14	0.35	0	1	4.6	0.15	0.13
Household composition: household w/o spouse, w/o children	0.36	0.48	0	1	0.0	0.32	0.40
Household composition: single household with minor children	0.08	0.28	0	1	0.0	0.09	0.08
Household composition: couple household	0.07	0.26	0	1	0.0	0.08	0.07
Household composition: couple household with minor children	0.49	0.50	0	1	0.0	0.51	0.46
Other individuals in hh (incl. adult children)	0.21	0.41	0	1	0.0	0.21	0.20
Residence of parents: at least 1 parent in household	0.22	0.41	0	1	0.0	0.23	0.20

Residence of parents: at least 1 parent in TK/LEB	0.24	0.43	0	1	0.0	0.24	0.24
Residence of parents: no parent in TK/LEB	0.54	0.50	0	1	0.0	0.52	0.56
Health status: Very poor	0.07	0.26	0	1	0.1	0.08	0.07
Health status: Moderately poor	0.11	0.31	0	1	0.1	0.14	0.08
Health status: Satisfactory	0.28	0.45	0	1	0.1	0.31	0.24
Health status: Moderately good	0.31	0.46	0	1	0.1	0.30	0.32
Health status: very good	0.23	0.42	0	1	0.1	0.17	0.29
Years since migration: less than 5 yrs	0.06	0.24	0	1	0.0	0.06	0.06
Years since migration: 5	0.03	0.18	0	1	0.0	0.03	0.04
Years since migration: 6	0.05	0.22	0	1	0.0	0.07	0.03
Years since migration: 7	0.06	0.23	0	1	0.0	0.08	0.04
Years since migration: 8	0.14	0.35	0	1	0.0	0.15	0.14
Years since migration: 9	0.26	0.44	0	1	0.0	0.28	0.24
Years since migration: 10 yrs or more	0.36	0.48	0	1	0.0	0.29	0.43
Years since migration: no info	0.03	0.18	0	1	0.0	0.05	0.02
Total regional labor force participation, in %	43.09	2.61	36	46	0.0	42.95	43.22
Unemployment rate, women-to-men ratio	1.27	0.22	1	2	0.0	1.28	1.26
Inconsistent child information	0.01	0.10	0	1	0.0	0.01	0.01
Implausible values on years of pre-mig. education	0.00	0.00	0	0	0.0	0.00	0.00

Source: TRANSMIT Survey, Lebanon, wave 4, own calculations.

Table 2: Descriptive statistics of the Turkey sample

	Total					Women	Men
	mean	sd	min	max	% missing	mean	mean
Currently employed	0.49	0.50	0	1	0.0	0.09	0.82
Age, in years	34.73	10.28	15	65	0.0	34.10	35.25
Pre-migration level of education: low	0.56	0.50	0	1	0.3	0.63	0.50
Pre-migration level of education: medium	0.25	0.43	0	1	0.3	0.20	0.28
Pre-migration level of education: high	0.20	0.40	0	1	0.3	0.17	0.22
Employed in Syria bef. migration: No	0.60	0.49	0	1	0.0	0.94	0.33
Employed in Syria bef. migration: Yes	0.39	0.49	0	1	0.0	0.06	0.66
Employed in Syria bef. migration: no info	0.01	0.07	0	1	0.0	0.01	0.01
Pre-migration years in education	7.63	5.46	0	71	0.0	6.73	8.37
Participation in Turkish course now or in past	0.10	0.31	0	1	0.0	0.13	0.08
Good or very good Turkish skills (reading, writing)	0.24	0.42	0	1	0.4	0.19	0.27
Participation in (other) post-migration education	0.03	0.17	0	1	0.0	0.04	0.02
At least one child aged 0-3 in household	0.35	0.48	0	1	0.0	0.34	0.35
Household members (other than children) requiring care	0.09	0.29	0	1	15.6	0.07	0.11
In charge of care work in household	0.47	0.50	0	1	0.0	0.63	0.34
Status at entry: visa (work/educ/tourist)	0.04	0.19	0	1	4.0	0.02	0.05
Status at entry: no permit required	0.43	0.50	0	1	4.0	0.39	0.46
Status at entry: applied for asylum	0.46	0.50	0	1	4.0	0.51	0.43
Status at entry: other	0.07	0.25	0	1	4.0	0.08	0.06
Household composition: household w/o spouse, w/o children	0.17	0.38	0	1	0.0	0.13	0.21
Household composition: single household with minor children	0.06	0.24	0	1	0.0	0.13	0.01
Household composition: couple household	0.11	0.31	0	1	0.0	0.09	0.12
Household composition: couple household with minor children	0.65	0.48	0	1	0.0	0.64	0.66
Other individuals in hh (incl. adult children)	0.35	0.48	0	1	0.0	0.38	0.32
Residence of parents: at least 1 parent in household	0.12	0.33	0	1	0.0	0.10	0.14

Residence of parents: at least 1 parent in TK/LEB	0.10	0.30	0	1	0.0	0.12	0.08
Residence of parents: no parent in TK/LEB	0.78	0.41	0	1	0.0	0.78	0.78
Health status: Very poor	0.05	0.23	0	1	0.1	0.05	0.06
Health status: Moderately poor	0.12	0.32	0	1	0.1	0.13	0.11
Health status: Satisfactory	0.18	0.39	0	1	0.1	0.17	0.19
Health status: Moderately good	0.30	0.46	0	1	0.1	0.31	0.29
Health status: very good	0.34	0.48	0	1	0.1	0.33	0.35
Years since migration: less than 5 yrs	0.09	0.28	0	1	0.0	0.10	0.07
Years since migration: 5	0.06	0.24	0	1	0.0	0.06	0.06
Years since migration: 6	0.08	0.27	0	1	0.0	0.09	0.07
Years since migration: 7	0.17	0.37	0	1	0.0	0.15	0.18
Years since migration: 8	0.20	0.40	0	1	0.0	0.18	0.22
Years since migration: 9	0.14	0.34	0	1	0.0	0.15	0.13
Years since migration: 10 yrs or more	0.13	0.33	0	1	0.0	0.13	0.13
Years since migration: no info	0.14	0.34	0	1	0.0	0.15	0.13
Total regional labor force participation, in %	49.13	4.22	41	57	0.0	49.43	48.88
Unemployment rate, women-to-men ratio	1.37	0.29	1	2	0.0	1.40	1.34
Inconsistent child information	0.00	0.00	0	0	0.0	0.00	0.00
Implausible values on years of pre-mig. education	0.00	0.05	0	1	0.0	0.00	0.00

Source: TRANSMIT Survey, Turkey, wave 4, own calculations.

Table 3: Descriptive statistics of the Germany sample

	Total				Female	Male
	mean	sd	min	max	mean	mean
Employed in Syria bef. migration: Yes	0.60	0.49	0.00	1.00	0.77	0.32
Pre-migration level of education: low	0.34	0.47	0.00	1.00	0.33	0.36
Pre-migration level of education: medium	0.52	0.50	0.00	1.00	0.52	0.51
Pre-migration level of education: high	0.14	0.35	0.00	1.00	0.15	0.13
Pre-migration years in education	9.58	5.44	0.00	37.00	9.90	9.07
Participation in German course now or in past	0.84	0.36	0.00	1.00	0.90	0.74
Recognition of pre-mig. qualification: no application	0.82	0.38	0.00	1.00	0.79	0.87
Recognition of pre-mig. qualification: (partially) yes	0.08	0.28	0.00	1.00	0.11	0.05
Recognition of pre-mig. qualification: no	0.01	0.11	0.00	1.00	0.02	0.01
Recognition of pre-mig. qualification: pending	0.08	0.27	0.00	1.00	0.08	0.08
Participation in (other) post-migration education	0.05	0.21	0.00	1.00	0.06	0.02
German Language Proficiency, (very) good	0.33	0.47	0.00	1.00	0.38	0.26
At least one child aged 0-3 in household	0.07	0.26	0.00	1.00	0.07	0.08
Household members (other than children) requiring care	0.08	0.28	0.00	1.00	0.08	0.09
At least weekly contact to Germans	0.55	0.50	0.00	1.00	0.61	0.45
At least weekly contact to other migrants	0.35	0.48	0.00	1.00	0.40	0.28
At least weekly contact to other Syrians	0.62	0.48	0.00	1.00	0.67	0.55
Current legal status: residence title	0.91	0.28	0.00	1.00	0.92	0.90
Current legal status: no title/toleration status	0.01	0.10	0.00	1.00	0.01	0.01
Current legal status: in progress	0.05	0.22	0.00	1.00	0.05	0.06
Current legal status: other	0.02	0.15	0.00	1.00	0.02	0.03
Household composition: household w/o spouse, w/o children	0.26	0.44	0.00	1.00	0.35	0.13

Household composition: couple household	0.10	0.30	0.00	1.00	0.09	0.12
Household composition: single household with children	0.13	0.33	0.00	1.00	0.10	0.17
Household composition: couple household with children	0.51	0.50	0.00	1.00	0.47	0.58
at least 1 parent in household	0.11	0.32	0.00	1.00	0.11	0.12
at least 1 parent in Germany	0.09	0.29	0.00	1.00	0.08	0.12
no parent in Germany	0.79	0.41	0.00	1.00	0.81	0.77
Health status: Very poor	0.03	0.16	0.00	1.00	0.02	0.03
Health status: Moderately poor	0.09	0.28	0.00	1.00	0.07	0.11
Health status: Satisfactory	0.16	0.37	0.00	1.00	0.15	0.18
Health status: Moderately good	0.36	0.48	0.00	1.00	0.36	0.37
Health status: Very good	0.36	0.48	0.00	1.00	0.40	0.30
age at immigration	31.74	11.21	8.00	65.00	31.84	31.59
Total regional labor force participation, in %	83.01	2.33	77.19	88.32	82.98	83.05
Unemployment rate, women-to-men ratio	0.92	0.04	0.81	1.00	0.92	0.92

Source: Authors' calculations using SOEP data v.39.

4.4. Oaxaca-Blinder Decomposition Analysis

The aim is to understand the difference between men and women in employment. The two-fold Oaxaca-Blinder Decomposition Analysis is conducted in order to understand the employment gap between men and women. In particular, we answer how much of the overall employment gap is attributable to explained and unexplained differences. Explained differences are due to differences in the various characteristics (the x's) while the unexplained differences are due to differences in the returns to characteristics (the β's) in addition to unobservables (World Bank; Rahimi and Nazari, 2021). In this regard, the gap in employment between women and men could be divided into two portions. First, a portion that is due to the fact that women have worse characteristics x's than men and a portion that is due to that women have worse returns to the characteristics (β's) than men.

In the two-fold discrimination decomposition analysis, our reference non-discriminating category are the coefficients of Syrian refugee men. Men have higher employment rates and were chosen as the reference category. The unexplained part could be over or under-estimated if not all the determinants of the outcomes are not included in the model. So, in this case, it could partially be considered as a measure of discrimination (Rahimi and Nazari, 2021).

4. Results

The difference in percentage points indicates by how many percentage points the probability of men's employment is higher on average than that of women (Table 4). For example, for Germany, this difference amounts to 42 percentage points. This unadjusted gender difference consists of an explained and an unexplained part. 14 percentage points of the difference can be attributed to observable differences between male and female refugees (explained part), representing 33 percent of the difference between men and women. 28 percentage points cannot be explained by the differences between men and women, representing 67 percent of the employment difference.

When considering the gender differences on average in Turkey, men have a likelihood of 82 percent be employed, in contrast to 9 percent for women (see Table 4). This results in a gap of 73 percentage points, which can be attributed to various influencing factors. 13 percent of the difference can be explained by observed differences in the characteristics of female and male refugees (9 percentage points). The unexplained part represents 87 percent (63.5 percentage points).

In Lebanon, the gender gap in refugees' employment probabilities is similarly pronounced. Men have a likelihood of 75 percent to be employed, while for women this amounts to 14 percent, dividing into an explained part contributing 21 percent (13.1 percentage points) and an unexplained part of 79 percent (47.9 percentage points).

We furthermore explore potential determinants of these differences (Tables 5-7). In accordance with the literature, gender differences in pre-migration human capital contribute to the gender employment gaps in all countries. Interestingly, its contribution is much larger in Turkey and Lebanon than in Germany. In Germany, post-migration human capital instead is more important, mostly relating to German course participation and German language skills. This

likely reflects institutional country differences: firstly, the integration infrastructure is most developed in Germany, for example with respect to the provision of language classes as well as the obligation for most refugees to participate in a language class. Secondly, the informal labor markets are larger in Turkey and Lebanon, requiring less formal skills. Thirdly and relatedly, access to labor markets for refugees is more rigidly controlled for in Germany than in the comparison countries.

Differences in care work obligations furthermore strongly contribute to the gender employment gaps in Lebanon and Turkey. The analysis shows that this is not driven by children in the household alone but conditional on the person to be in charge of the care work. For Germany, this result cannot be confirmed. This may stem from the selected Syrian population that sought humanitarian protection it to Germany in contrast to Syrians in the other countries. Note, though, that a lack of information on the distribution of care tasks for the Germany sample may cause an underestimation of the effect of care work obligations for Syrians in Germany.

Relatedly, the life context matters in all countries, and the household composition in particular. In Turkey, the fact that more women than men head a single household with minor children contracts the gender gap, hinting at a particularly high economic pressure for this group of women. In Germany, a larger share of couple households with children as well as single households (without spouse or children) increases the gender employment gap of Syrian refugees, indicating that in families with children male spouses are more likely to pick up employment than female spouses. Also, as has been shown in the literature before, single men are much more likely than others to enter the labor market. The residence of the parents does not strongly play into the gender differences in either of the countries.

The current health status is of measurable importance only in Germany. Gender differences in health significantly contribute to the gender employment difference we find for Syrians in Germany, potentially reflecting the increased health risks for women to reach Europe and the strongly selected group of refugee women actually reaching Germany (Gundacker et al., 2024). Likewise, we can find an age effect for Germany, but not for the other countries.

The local labor market does not contribute to the observed gender gaps in Lebanon and Turkey, likely also because the indicators do not capture the size of the informal economy. In Germany, the differences of men and women living in regions with more or less regional labor force participation explains a small share of the gender employment differences that we find.

Table 4: Oaxaca-Blinder decomposition of the gender gap in employment among refugees, aggregate differences

		Germany	Turkey	Lebanon
Average employment rate				
Men	%	55.0***	82.1***	74.5***
Women	%	13.3***	9.0***	13.5***
Difference (unadjusted difference between women and men)	% points	41.6***	73.2***	61.0***
Explained part of the difference	% points	13.6***	9.7***	13.1***
Explained part of the difference	%	33%	13%	21%
Unexplained part of the difference	% points	28.0***	63.5***	47.9***
Unexplained part of the difference	%	67%	87%	79%
N		7770	1240	1230

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

Source: Authors' calculations using Transmit data and SOEP data v.39.

Table 5: Oaxaca-Blinder decomposition of the gender gap in employment among refugees, grouped variables

	Germany		Turkey		Lebanon	
	% points	%	% points	%	% points	%
Difference	41.6***		73.2***		61.0***	
Explained	13.6***		9.7***		13.1***	
Unexplained	28.0***		63.5***		47.9***	
explained						
HK in home	2.2**	16	10.5***	108	10.8***	82
HK in destination	3.1***	23	0.1	1	0.1	1
Care	-0.0	0	1.6**	16	1.4**	11
Networks	4.6***	34				
Legal	0.0	0	-0.2	-2	-0.7	-5
Life context	3.5***	26	-1.6**	-16	0.5	4
Health	1.6***	12	-0.0	0	0.5	4
Demographics	0.5	4	-0.3	-3	0.4	3
Local conditions	-0.5*	-4	-0.3	-3	0.1	1
Wave	-1.3***	-10				
Unexplained						
HK in Syria	-3.5	-13	29.9***	47	-9.5	-20
HK in destination	13.5*	48	-1.9	-3	-0.2	0
Care	0.7	3	-2.9	-5	3.1	6
Networks	1.6	6				
Legal	-1.1	-4	3.4	5	-1.3	-3
Life context	2.4	9	7.1	11	2.2	5
Health	19.5***	70	5.3***	8	4.1***	9
Demographics	6.8	24	17.2	27	66.6***	139
Local conditions	89.3	319	20.3	32	-34.1	-71
Missings	-0.1	0	0.6	1	-0.7	-1
Wave	4.8***	17				
Constant	-105.9	-378	-15.5	-24	17.7	37
N	7770		1240		1230	

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

Source: Authors' calculations using Transmit data for the years ... and SOEP data v.39.

Table 6: Oaxaca-Blinder decomposition of the gender gap in employment among refugees, disaggregated variables, Lebanon and Turkey

	Lebanon (1)	Turkey (2)
Explained:		
PRE-MIGRATION HUMAN CAPITAL		
Pre-migration level of education: low	-0.0	-0.7**
Pre-migration level of education: medium	-0.0	-0.1
Pre-migration level of education: high	0.0	-0.2
Employed in Syria bef. migration: No	6.4***	9.7***
Employed in Syria bef. migration: Yes	4.7***	0.2
Employed in Syria bef. migration: no info	0.0	0.0
Pre-migration years in education	0.1	1.3**
POST-MIGRATION HUMAN CAPITAL		
Participation in (other) post-migration education	0.1	0.3
Good or very good Turkish skills (reading, writing)		-0.1
Participation in Turkish course now or in past		-0.1
CARE WORK		
At least one child aged 0-3 in household	0.0	0.0
In charge of care work in household	1.6**	1.5**
Household members (other than children) requiring care	0.0	-0.1
LEGAL SITUATION		
Status at entry: visa (work/educ/tourist)	0.1	0.1
Status at entry: no permit required	-0.1	-0.3
Status at entry: applied for asylum	-0.1	-0.0
Status at entry: other	0.1	-0.0
Years since migration: less than 5 yrs	0.0	0.1
Years since migration: 5	0.0	0.0
Years since migration: 6	-0.2	-0.0
Years since migration: 7	0.0	0.0
Years since migration: 8	-0.0	0.1
Years since migration: 9	0.2	-0.0
Years since migration: 10 yrs or more	-0.6*	0.0
Years since migration: no info	-0.1	0.1
LIFE CONTEXT		
Household composition: household w/o spouse, w/o children	0.4*	0.1
Household composition: single household with minor children	0.1	-1.5***
Household composition: couple household	-0.0	-0.1
Household composition: couple household with minor children	0.2	-0.2
Residence of parents: at least 1 parent in household	-0.0	0.1

Residence of parents: at least 1 parent in TK/LEB	-0.0	0.1
Residence of parents: no parent in TK/LEB	-0.1	0.0
Other individuals in hh (incl. adult children)	0.0	0.1
HEALTH		
Health status: Very poor	0.1	-0.1
Health status: Moderately poor	-0.1	0.1
Health status: Satisfactory	-0.0	0.1
Health status: Moderately good	0.0	-0.2
Health status: very good	0.4	0.2
DEMOGRAPHICS		
Age, in years	1.3	1.8
age, squared	-1.0	-2.0
LOCAL CONDITIONS		
Unemployment rate, women-to-men ratio	0.1	-0.1
Total regional labor force participation, in %	-0.0	-0.2
controls		
Unexplained:		
PRE-MIGRATION HUMAN CAPITAL		
Pre-migration level of education: low	-4.5*	0.6
Pre-migration level of education: medium	0.9	0.7
Pre-migration level of education: high	0.6	-0.8
Employed in Syria bef. migration: No	-4.2	16.2*
Employed in Syria bef. migration: Yes	-5.3**	0.9
Employed in Syria bef. migration: no info	0.2*	-0.1
Pre-migration years in education	2.8	5.4
POST-MIGRATION HUMAN CAPITAL		
Participation in (other) post-migration education	-0.3	-0.7
Good or very good Turkish skills (reading, writing)		-1.9*
Participation in Turkish course now or in past		0.7
CARE WORK		
At least one child aged 0-3 in household	3.1	0.0
In charge of care work in household	-0.6	-2.3
Household members (other than children) requiring care	0.1	-0.2
LEGAL SITUATION		
Status at entry: visa (work/educ/tourist)	-0.2	-0.0
Status at entry: no permit required	2.3**	0.8
Status at entry: applied for asylum	-1.1	2.6
Status at entry: other	-0.9	-0.4
Years since migration: less than 5 yrs	-0.3	-0.4
Years since migration: 5	0.2	-0.8*
Years since migration: 6	-0.4	0.0
Years since migration: 7	-1.1**	0.3
Years since migration: 8	-0.4	0.3
Years since migration: 9	-1.3	1.6***

Years since migration: 10 yrs or more	-1.6	1.0*
Years since migration: no info	0.8**	-0.9
LIFE CONTEXT		
Household composition: household w/o spouse, w/o children	0.1	-1.3
Household composition: single household with minor children	-1.8***	0.2
Household composition: couple household	1.5***	0.5
Household composition: couple household with minor children	-0.5	5.4
Residence of parents: at least 1 parent in household	-1.9**	0.6
Residence of parents: at least 1 parent in TK/LEB	1.8**	-0.4
Residence of parents: no parent in TK/LEB	0.7	-0.1
Other individuals in hh (incl. adult children)	0.8	-1.2
HEALTH		
Health status: Very poor	-1.2**	-1.1***
Health status: Moderately poor	-0.5	-1.1*
Health status: Satisfactory	-1.4	1.7**
Health status: Moderately good	4.0***	3.4***
Health status: very good	3.1***	2.6**
DEMOGRAPHICS		
Age, in years	172.3***	81.7*
age, squared	-92.0***	-55.9**
LOCAL CONDITIONS		
Unemployment rate, women-to-men ratio	-1.2	27.2*
Total regional labor force participation, in %	-31.0	-5.7
controls		
Constant	6.5	-16.5
Obs	1157	1185

* p<0.1, ** p<0.05, *** p<0.01.

Source: Authors' calculations using Transmit data.

Table 7: Oaxaca-Blinder decomposition of the gender gap in employment among refugees, disaggregated variables, Germany

	Germany (1)
Explained	
PRE-MIGRATION HUMAN CAPITAL	
Employed in Syria bef. migration: No	-0.1
Employed in Syria bef. migration: Yes	2.2

Employed in Syria bef. migration: no info	-0.1
Pre-migration level of education: low	-0.0
Pre-migration level of education: medium	0.0
Pre-migration level of education: high	-0.0
Pre-migration years in education	0.2
POST-MIGRATION HUMAN CAPITAL	
Participation in German course now or in past	0.8**
Recognition of pre-mig. qualification: no application	0.2
Recognition of pre-mig. qualification: (partially) yes	0.2
Recognition of pre-mig. qualification: no	0.0
Recognition of pre-mig. qualification: pending	-0.0
Participation in (other) post-migration education	0.4
German Language Proficiency, (very) good	1.6***
CARE WORK	
At least one child aged 0-3 in household	-0.2
Household members (other than children) requiring care	0.2
NETWORKS	
At least weekly contact to Germans	4.3***
At least weekly contact to other migrants	1.3***
At least weekly contact to other Syrians	-0.9***
LEGAL SITUATION	
Current legal status: residence title	-0.1
Current legal status: no title/toleration status	0.0
Current legal status: in progress	0.2
Current legal status: other	-0.1
LIFE CONTEXT	
Household composition: household w/o spouse, w/o children	2.3***
Household composition: couple household	0.0
Household composition: single household with children	0.0
Household composition: couple household with children	1.1***
at least 1 parent in household	0.0
at least 1 parent in Germany	-0.0
no parent in Germany	0.1
HEALTH	
Health status: Very poor	0.0
Health status: Moderately poor	-0.0
Health status: Satisfactory	-0.7**
Health status: Moderately good	0.0
Health status: Very good	2.2***
DEMOGRAPHICS	
age at immigration	-6.4**
age at immigration, squared	6.9***
LOCAL CONDITIONS	

Total regional labor force participation, in %	-0.5*
Unemployment rate, women-to-men ratio	0.0
work0_miss	0.0
Survey year: 2016	-0.1
Survey year: 2017	-0.3**
Survey year: 2018	-0.1*
Survey year: 2019	-0.0
Survey year: 2020	-0.0
Survey year: 2021	-0.1
Survey year: 2022	-0.7**
Unexplained	
PRE-MIGRATION HUMAN CAPITAL	
Employed in Syria bef. migration: No	16.7***
Employed in Syria bef. migration: Yes	13.0***
Employed in Syria bef. migration: no info	-0.0
Pre-migration level of education: low	-1.6*
Pre-migration level of education: medium	0.8
Pre-migration level of education: high	0.8
Pre-migration years in education	-4.8
POST-MIGRATION HUMAN CAPITAL	
Participation in German course now or in past	8.7
Recognition of pre-mig. qualification: no application	5.3
Recognition of pre-mig. qualification: (partially) yes	-0.8*
Recognition of pre-mig. qualification: no	-0.0
Recognition of pre-mig. qualification: pending	0.5
Participation in (other) post-migration education	-0.8**
German Language Proficiency, (very) good	0.4
CARE WORK	
At least one child aged 0-3 in household	1.1**
Household members (other than children) requiring care	-0.4
NETWORKS	
At least weekly contact to Germans	1.2
At least weekly contact to other migrants	0.5
At least weekly contact to other Syrians	-0.3
LEGAL SITUATION	
Current legal status: residence title	-0.2
Current legal status: no title/toleration status	0.2***
Current legal status: in progress	-0.3
Current legal status: other	-0.4*
LIFE CONTEXT	
Household composition: household w/o spouse, w/o children	0.2
Household composition: couple household	-0.2
Household composition: single household with children	-0.3

Household composition: couple household with children	0.0
at least 1 parent in household	-0.7*
at least 1 parent in Germany	0.3
no parent in Germany	3.3
HEALTH	
Health status: Very poor	0.0
Health status: Moderately poor	0.1
Health status: Satisfactory	0.1
Health status: Moderately good	2.8
Health status: Very good	5.6***
DEMOGRAPHICS	
age at immigration	37.4
age at immigration, squared	-29.6
LOCAL CONDITIONS	
Total regional labor force participation, in %	91.3
Unemployment rate, women-to-men ratio	-6.6
work0_miss	0.0
Survey year: 2016	-0.9***
Survey year: 2017	-0.8**
Survey year: 2018	-0.2
Survey year: 2019	1.1*
Survey year: 2020	0.1
Survey year: 2021	2.3***
Survey year: 2022	3.2***
Constant	-120.3
Obs	7770

* p<0.1, ** p<0.05, *** p<0.01.

Source: Authors' calculations using SOEP data v.39.

6. Discussion

The findings of this study offer insights into the complex dynamics that contribute to the gender employment gap among Syrian refugees in Lebanon, Turkey, and Germany. Our analysis reveals significant disparities in employment probabilities between male and female refugees across these countries, with Lebanon and Turkey exhibiting larger gaps compared to Germany. These differences are shaped by various factors, with pre- and post-migration human capital, care work responsibilities, household composition, and the broader labor market context playing key roles.

First, our results emphasize the critical role of pre- and post-migration human capital in explaining gender differences in labor market outcomes. In Germany, *post-migration human capital*—specifically language skills and participation in integration programs—is essential in narrowing the gender gap. This aligns with Germany's well-developed integration infrastructure, which provides refugees with opportunities to enhance their skills and increase

their employability. In contrast, in Lebanon and Turkey, where informal labor markets are more prevalent, *pre-migration human capital*, including education and work experience, plays a more prominent role. This suggests that the relevance of human capital differs across destination countries, emphasizing the need for tailored integration strategies. Pre- and post-migration human capital appear to be particularly important in countries like Lebanon and Turkey, where access to formal job markets is more limited, and refugees rely on informal sectors.

Care work obligations also contribute significantly to the gender employment gap, particularly in Lebanon and Turkey, where women often bear the brunt of household and caregiving duties. This gendered division of labor restricts women's ability to participate in formal employment. In Germany, however, this effect is less pronounced, likely due to the better availability of support structures such as childcare and a more structured labor market. However, the lack of detailed data on the distribution of care tasks in the German sample could result in an underestimation of the impact of care work obligations on refugee women's employment outcomes in Germany.

The analysis also reveals that household composition plays a crucial role in shaping gender employment disparities. In Turkey, a higher proportion of female-headed households with children seems to alleviate the gender gap, as these women are under strong economic pressure to enter the labor market. Conversely, in Germany, the gender gap increases with the presence of children in coupled households, as male refugees are more likely to enter the labor market than their female counterparts. These findings suggest that household structure and family responsibilities are key determinants of labor market participation and can influence the gender gap, highlighting the need for policies that address family support and childcare.

Additionally, health status contributes to gender differences in labor market outcomes, but this effect is most notable in Germany. The significant health disparities between male and female refugees in Germany, likely resulting from the physical and psychological toll of forced migration, exacerbate the employment gap. This finding is consistent with previous studies that highlight the increased vulnerability of refugee women, particularly in terms of health (Gundacker et al., 2024). In Lebanon and Turkey, however, health status does not appear to be a significant factor, possibly due to differences in data availability or the particular challenges refugees face in these contexts.

Finally, while the local labor market does not significantly contribute to the gender gap in Lebanon and Turkey, it does play a minor role in Germany. Regional differences in labor force participation in Germany help explain some of the gender disparities, with areas exhibiting higher female labor force participation offering more opportunities for female refugees. This suggests that local labor market conditions, as well as policies that support the inclusion of women in the labor market, are crucial for reducing gender disparities in refugee employment.

In conclusion, our results highlight the importance of considering both pre- and post-migration human capital when examining gender disparities in refugee employment. The findings suggest that pre- and post-migration human capital, along with factors such as care work responsibilities, household composition, and health status, significantly influence gender gaps

in refugee employment. To reduce these gaps, policies should focus on improving access to integration programs, expanding childcare options, and addressing the unique barriers faced by refugee women. These measures are essential not only for enhancing the economic integration of refugee women but also for fostering their social and economic inclusion in receiving societies. Future research could further explore how pre- and post-migration human capital interacts with other factors, such as social networks and informal labor markets, to shape refugee employment outcomes. Such research would provide a more comprehensive understanding of the gender dynamics involved in refugee labor market integration.

References

Alrababa'h, A., Masterson, D., Casalis, M., Hangartner, D., & Weinstein, J. (2023). The dynamics of refugee return: Syrian refugees and their migration intentions. *British Journal of Political Science, 53*(5), 1108–1131. https://doi.org/10.1017/S0007123422000667

Bakker, L., Dagevos, J., & Engbersen, G. (2016). Explaining the refugee gap: A longitudinal study on labour market participation of refugees in the Netherlands. *Journal of Ethnic and Migration Studies, 43*(11), 1775–1791. https://doi.org/10.1080/1369183X.2016.1167677

Bauer, J. J. (2014). Selection errors of random route samples. *Sociological Methods & Research, 43*(3), 519–544. https://doi.org/10.1177/0049124114540832

BBSR. (2024). INKAR—Indikatoren und Karten zur Raum- und Stadtentwicklung. *Bundesinstitut für Bau-, Stadt- und Raumforschung* (BBSR im Bundesamt für Bauwesen und Raumordnung). https://www.inkar.de/ (Accessed 27 Nov. 2024)

Brücker, H., Fendel, T., Guichard, L., Gundacker, L., Jaschke, P., Keita, S., Kosyakova, Y., & Vallizadeh, E. (2020). Fünf Jahre „Wir schaffen das" - Eine Bilanz aus der Perspektive des Arbeitsmarktes. *IAB-Kurzbericht Nr. 11*. https://www.iab.de/2110/englisch/aktuelles/detail.jsp?tabid=1&recid=5060

Brücker, H., Rother, N., & Schupp, J. (2017). IAB-BAMF-SOEP-Befragung von Geflüchteten 2016: Studiendesign, Feldergebnisse sowie Analysen zu schulischer wie beruflicher Qualifikation, Sprachkenntnissen sowie kognitiven Potenzialen. *IAB-Forschungsbericht, 13/2017*. Nürnberg: IAB. https://www.iab.de

Cardozo Silva, A., Kosyakova, Y., & Yurdakul, A. (2023). Gendered implications of restricted residence obligation policies on refugees' employment in Germany. *SOEP Papers, 1203*. https://www.diw.de/de/diw_01.c.894433.de/publikationen/soeppapers/2023_1203/gendered_implications_of_restricted_residence_obligation_policies_on_refugees___employment_in_germany.html

Caro, L. P. (2020). Syrian refugees in the Turkish labour market: A socio-economic analysis. *Sosyoekonomi*, *28*(46), 51–74. https://doi.org/10.17233/sosyoekonomi.2020.04.03

Del Carpio, X. V., & Wagner, M. (2015). The impact of Syrian refugees on the Turkish labor market. *World Bank*. https://documents.worldbank.org/pt/publication/documents-reports/documentdetail/505471468194980180/the-impact-of-syrians-refugees-on-the-turkish-labor-market

Demirci, M., & Kirdar, M. G. (2023). The labor market integration of Syrian refugees in Turkey. *World Development*, *162*, 106-138. https://doi.org/10.1016/j.worlddev.2022.106138

Donato, K. M., Piya, B., & Jacobs, A. (2014). The double disadvantage reconsidered: Gender, immigration, marital status, and global labor force participation in the 21st century. *International Migration Review*, *48*(s1), S335–S376. https://doi.org/10.1111/imre.12142

Ehab, M., Goßner, L., Kosyakova, Y., & Schreyer, F. (2024). Geflüchtete Frauen in unterschiedlichen Haushaltskonstellationen: Frauen ohne Partner und ohne Kinder nehmen am häufigsten am Erwerbssystem teil. *IAB-Kurzbericht, 14/2024*. https://doi.org/10.48720/IAB.KB.2414

Gallup. (2022). World poll methodology. *Gallup*. https://news.gallup.com/poll/105226/world-poll-methodology.aspx (Accessed November 3, 2022)

Gundacker, L., Keita, S., & Ruhnke, S. A. (2024). Unequal access to protection? Selection patterns over arrival cohorts of Syrians seeking refuge in Lebanon, Turkey, and Germany. *Frontiers in Human Dynamics*, *5*, 1171885. https://doi.org/10.3389/fhumd.2024.1171885

Gundacker, L., Hertner, L., Kühnert, N., Rischke, R., Ruhnke, S., Talebi, N., Trocka, C., & Brücker, H. (forthcoming 1). Transnational perspectives on migration and integration - TRANSMIT surveys of Syrian nationals and their neighbors in Lebanon and Turkey (2019–2023). *Jahrbücher für Nationalökonomie und Statistik*.

Gundacker, L., Hertner, L., Kühnert, N., Rischke, R., Ruhnke, S., Talebi, N., Trocka, C., & Brücker, H. (forthcoming 2). TRANSMIT surveys of Syrian nationals and their neighbors in Lebanon and Turkey (2019–2023) data manual. *Berlin: Deutsches Zentrum für Integrations- und Migrationsforschung (DeZIM)*.

Himelein, K., Eckman, S., Murray, S., & Bauer, J. (2016). Second-stage sampling for conflict areas: Methods and implications. *SSRN Scholarly Paper 2756265*. https://papers.ssrn.com/abstract=2756265

Kosyakova, Y., & Kogan, I. (2022). Labor market situation of refugees in Europe: The role of individual and contextual factors. *Frontiers in Political Science, 4*, 1–14. https://doi.org/10.3389/fpos.2022.977764

Kosyakova, Y., Salikutluk, Z., & Hartmann, J. (2023). Gender employment gap at arrival and its dynamics: The case of refugees in Germany. *Research in Social Stratification and Mobility, 87*, 100842. https://doi.org/10.1016/j.rssm.2023.100842

Liebig, T., & Tronstad, K. R. (2018). Triple disadvantage? A first overview of the integration of refugee women. *OECD Social, Employment and Migration Working Papers, 216*. https://doi.org/10.1787/5jrs1p16ds6d-en

Okyay, A. S. (2017). Labour market integration of Syrian refugees in Germany and Turkey: Challenges and prospects. *FEPS Europe*. https://feps-europe.eu/wp-content/uploads/2017/06/Labour-Market-Integration-of-Syrian-Refugees-in-Germany-and-Turkey-Challenges-and-Prospects-.pdf

Tumen, S. (2023). The case of Syrian refugees in Türkiye: Successes, challenges, and lessons learned. *Background paper to the World Development Report 2023: Migrants, Refugees, and Societies*. World Bank.

UNHCR. (2024). Situation Syria, operational data portal. *UNHCR*. https://data.unhcr.org/en/situations/syria (Accessed 1 July 2024)

UNHCR. (2024). Lebanon - Needs at a glance – 2024. *UNHCR*. https://www.unhcr.org/lb/at-a-glance (Accessed 13 Dec. 2024)

Üstübici, A., & Ince, H. B. (2020). Syrian refugees in Türkiye: What existing data implies for gender and displacement. *KOÇ-KAM*. https://kockam.ku.edu.tr/syrian-refugees-in-turkey-what-existing-data-implies-for-gender-and-displacement-aysen-ustubici-h-berra-ince/