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**Employment and Job Perspectives for Female Refugees in
Germany: Analysis and Policy Implications from a Local Survey
Study**

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Summary:

Based on an analysis of a survey carried out by the EIIW/Jobcenter Wuppertal among female refugees, we identify significant drivers of the prospect of finding employment and of being in employment for individuals from this particular sub-group in society. The majority of survey respondents used German or Arabic as their preferred language to complete the survey questionnaire of the EIIW/Jobcenter Wuppertal. Probit/ordered probit and Logit/ordered logit regressions are used to identify the impact of a battery of potential influences relevant for the employment perspectives of female refugees. The probit variable meant looking at those currently in employment (coded 1) or, alternatively, those currently unemployed while the alternative approach was to consider an ordered variable indicating ascending hours worked as a measure of “more work” being undertaken. Personal skills, demographic characteristics, as well as family-related characteristics plus certain types of knowledge/skills and competencies as well as access to digital technologies and social networks, respectively, are identified as being key drivers of employment perspectives for female refugees. For female refugees, access to a computer increases the likelihood of having a job. Marriage also has a positive indirect impact on finding a job. Female refugees with university degrees do not have better chances of finding a job in Germany than those of the respective control group – i.e., those without a degree. It is found that the amount of years women already live in Germany is positively and significantly related to the probability of finding employment, a result which holds across a broad framework of control variables. Concerning the country of origin – using specific control groups - we find weak evidence that women from African countries find it more difficult to integrate into the job market than women from Europe who tend to find a job more easily regardless of their language, culture, family status and education. Refugees from Syria are also rather difficult to integrate into the job market.

Zusammenfassung:

Basierend auf einer Analyse einer vom EIIW/Jobcenter Wuppertal durchgeführten Umfrage unter weiblichen Flüchtlingen, identifizieren wir signifikante Einflussfaktoren auf die Aussicht, eine Beschäftigung zu finden und erwerbstätig zu sein, für Individuen aus dieser besonderen Teilgruppe der Gesellschaft. Die Mehrheit der Befragten füllte den Fragebogen des EIIW/Jobcenter Wuppertal in Deutsch oder Arabisch als ihre bevorzugte Sprache aus. Probit- bzw. geordnete Probit- und Logit- bzw. geordnete Logit-Regressionen wurden verwendet, um die Auswirkungen einer Reihe potenzieller Einflussfaktoren zu ermitteln, die für die Beschäftigungsperspektiven von weiblichen Flüchtlingen relevant sind. Bei der Probit-Variable wurden diejenigen betrachtet, die derzeit erwerbstätig sind (Codierung 1) oder alternativ diejenigen, die derzeit arbeitslos sind, während der alternative Ansatz darin bestand, eine geordnete Variable zu betrachten, die aufsteigende Arbeitsstunden als Maß für die Aufnahme von „mehr Arbeit“ anzeigt. Persönliche Fähigkeiten, demografische und familiäre Merkmale sowie bestimmte Arten von Kenntnissen/Fähigkeiten und Kompetenzen sowie der Zugang zu digitalen Technologien bzw. sozialen Netzwerken werden als Hauptfaktoren für die Beschäftigungsaussichten von weiblichen Flüchtlingen ermittelt. Für weibliche Flüchtlinge erhöht der Zugang zu einem Computer die Wahrscheinlichkeit, einen Arbeitsplatz zu haben. Auch die Heirat hat indirekt einen positiven Einfluss auf die Arbeitssuche. Flüchtlingsfrauen mit Hochschulabschluss haben keine besseren Chancen, in Deutschland einen Arbeitsplatz zu finden, als die der jeweiligen Kontrollgruppe – also derjenigen ohne Abschluss. Es zeigt sich, dass die Anzahl der Jahre, die Frauen bereits in Deutschland leben, positiv und signifikant mit der Wahrscheinlichkeit, eine Beschäftigung zu finden, zusammenhängt, ein Ergebnis, das über einen breiten Rahmen von Kontrollvariablen hinweg gilt. In Bezug auf das Herkunftsland – unter Verwendung spezifischer Kontrollgruppen – finden wir schwache Hinweise darauf, dass Frauen aus afrikanischen Ländern es schwerer haben, sich in den Arbeitsmarkt zu integrieren, als Frauen aus Europa, die unabhängig von ihrer Sprache, Kultur, ihrem Familienstand und ihrer Bildung tendenziell leichter einen Arbeitsplatz finden. Auch für Flüchtlinge aus Syrien ist es eher schwierig, sich in den Arbeitsmarkt zu integrieren.

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1. Introduction

The employment and job perspectives of refugees in Germany are an important element of integration and resettlement dynamics in the European Union (EU) where an early peak of refugee inflows during recent decades occurred during the late 1990s, particularly during and after the Kosovo War (1998-1999). Another peak occurred in 2015 when the German government “opened up” Germany’s borders in a such way that a large number of refugees who had been waiting in countries such as Hungary to have asylum applications processed were allowed to migrate directly to Germany. Once refugees have been officially recognized as such and given asylum in Germany, they can seek a job and many of the aforementioned refugees have indeed done so.

The legal definitions of “migrants with a refugee background” (Brücker et al., 2019) cover individuals who have submitted an asylum application but have not yet obtained a decision, individuals with applications that have been approved and therefore have obtained political asylum in accordance with Article 15a of the German Constitution - protected status as a refugee in accordance with the United Nations’ 1951 Refugee Convention, subsidiary protection, or protection against international deportation - as well as individuals whose applications for asylum have been rejected but whose presence in the country is tolerated by the authorities or who have obtained an official order to leave Germany (in practice, returning such refugees back to their home country is, however, impossible in many cases). All of the aforementioned groups arrive in Germany under the broad heading of ‘refugee’.

While there are many studies on the job perspectives of refugees in Germany and other EU countries, respectively (see, e.g., Bertelsmann Stiftung 2016; Brell/Dustman/Preston, 2020; Degler/Liebig, 2017), relatively little is known about the particularly vulnerable sub-group of female refugees. In 2020, the Jobcenter Wuppertal decided that a research study on the employment and job market perspectives of female refugees in particular should be conducted. Based on a survey organized in cooperation with the Jobcenter Wuppertal in summer 2020, the European Institute for International Economic Relations (EIIW) was able to analyze data from female refugees who had all obtained the status of recognized refugee in Germany and who had been in current contact with the Jobcenter Wuppertal. A total of 5,458 refugees received a letter from the Jobcenter Wuppertal along with the questionnaire – in a number of various languages – and 641 completed and returned questionnaires could indeed be used for the following descriptive and empirical analysis. A detailed set of questions that were included in the survey is shown in the appendix.

As regards the performance of Jobcenters in Germany generally, there are 15 groups of Jobcenters which are subject to some benchmarking analyses under German law (§ 48a SGB II); three basic criteria are crucial:

- Reducing the need for help on the side of those people actively covered by the respective Jobcenter.
- Enhancing integration into gainful employment.
- Avoiding the situation that people become dependent on long-term financial support.

From this it follows that successful integration of the long-term unemployed into the labor market is a key goal of all Jobcenters; integration into the local and regional job markets of the German unemployed and of foreigners living in Germany and looking for work is thus a key challenge for Jobcenters.

Generally speaking, the Jobcenters in Germany are responsible for helping unemployed persons who are in receipt of so-called Hartz-IV payments (unemployment assistance) in seeking a job and gaining access to the job market via institutional support in finding new employment. Jobcenters are also active in helping low-income self-employed people, namely via the provision of supplementary income. Across Germany, there are 408 Jobcenters in total, 53 of which are located in the federal state of North Rhine-Westphalia (NRW). The Jobcenter in the city of Wuppertal – one of the 53 Jobcenters in NRW – has a rather successful history of dealing with regular immigrants in this field, the experience with refugees, however, is more recent and partly limited.

The survey was initially tested in a pilot phase in the context of events to mark “Integration Day” which were held on October 1, 2019, in the historic former city-hall of Wuppertal. Refugees who had come to a special event which was specifically intended at encouraging jobseekers with a refugee background were asked a list of questions related to their job perspectives. The survey included questions relating to standard personal and demographic information, but respondents were also invited to answer questions related to their family situation and current employment status plus prospective employment and job perspectives. Questions were also posed in relation to general interests and attitudes which were considered as possibly being relevant for the probability of finding a job.

In the following empirical analysis, a battery of answers to relevant questions in the Jobcenter Wuppertal survey is considered where the endogenous variable in the empirical section is the probability of either being in employment (i.e., having a job) or of finding a job. Several significant drivers – based on (ordered) probit and (ordered) logit regression analysis – could be identified as the subsequent section shows. Supplementary to the empirical analysis, a broad descriptive analysis is also presented where more of the questions on the survey are considered and discussed. This is an adequate procedure to the extent that - with respect to certain variables in the regressions - a closer inspection of the descriptive findings could help to clarify some research questions to which answers were not fully clear from the regression results alone. At the bottom line, this pioneering study finds a number of significant influencing factors on the probability of female refugees being successful in finding employment.

The paper is organized as follows: In Section 2, theoretical considerations and references to key findings from the literature are presented. Empirical results from the regressions are presented in Section 3, while further analysis with respect to selected descriptive findings is conducted in Section 4. The final section concludes and offers some crucial policy options.

2. Theoretical Considerations and Reference to the Literature

As regards the role of refugees in German society and the German economy, it is well-known that the Federal Republic of Germany has a rather long history of inward migration and as a haven for refugees; in a similar way, this also holds for Italy, France, Belgium, Austria, the Netherlands, and Scandinavian countries – particularly those which are EU members. Beginning in 2015, a new wave of refugees arrived in Austria, Germany, and the Scandinavian countries as well as other EU countries – with many refugees coming from Syria, Afghanistan, Iran as well as countries in Africa. As regards the integration of refugees in western industrialized countries' labor markets, one typically finds impediments to finding employment in the form of inadequate language skills (with respect to the language of the host country), opaque documented formal skill levels, and possibly other traits relevant for labor market integration. The consequence is that both male and female refugees can face problems in finding jobs in the host country and at adequate “normal” wage levels (normal here referring to the skill level of the respective worker): In a short-term perspective, refugees face a loss of human capital – in line with Becker's theory of human capital formation (Becker, 1964) – and thus would expect lower wages than other immigrants. Such a pattern of lower wages for “refugee workers” has indeed been identified in the case of Western countries by Brell/Dustman/Preston (2020). However, the matter of how medium- and long-term integration in the labor market develops remains unclear. As regards the type of refugee, one can distinguish between refugees with a differing status in their host country: For example, there are resettled refugees who benefitted via special government programs intended to bring certain refugees directly from their home countries (e.g., due to civil war or other circumstances) to the desired asylum country; moreover, there are asylum seekers who could later obtain a residence permit – finally, there are immigrants who are related to previously recognized refugees, namely immigrants who arrive in the host country via official family reunion migration programs.

As regards the different refugee groups in Sweden, Bevelander (2011) has presented empirical findings – controlling for personal and immigration characteristics plus other factors – for employment perspectives: The key results of Bevelander's regression analysis are that family reunion immigrants experience quicker integration into the Swedish labor market via employment than do asylum claimants; the latter, in turn, face faster employment integration than resettled refugees. Selection, as well as self-selection mechanisms plus networks, are key drivers explaining the employment integration of immigrant refugees. Refugees indeed face wages which are lower than domestic residents in industrialized countries (Brell/Dustmann/Preston, 2020). For Germany, Brücker et al. (2019) show some similar results, but also present new special findings. It is noticeable that over the period from 2015-2017, Germany has received 3.1 million applications from asylum-seekers – about half of the total number of asylum-seekers and refugees in the EU. The main source countries of refugees coming to Germany were Syria, Afghanistan, Iraq, Eritrea, and Iran, whereby 87 percent of asylum-seekers left their respective home country due to war, persecution, or issues of forced labor. In Germany, there were rather high acceptance rates – about 50 percent of applications for international protection were approved in Germany, while 32 percent were refused (18 percent were decided by other countries under the EU's so-called “Dublin Regulations”). A considerable share of those refugees who have not been officially recognized as such could not be flown back to their respective countries of origin in the short run; this leads to a “tolerated

status” which is a rather precarious position from a labor market perspective as this status can usually only be renewed for half a year. This causes uncertainty for the respective individuals and undermines prospects of employment and broader integration. About two-thirds of adult refugees coming to Germany in the period 2015-17 – with a peak of about 1 million in 2015 alone – were male and one-third female. Brücker et al. (2019) summarize their key findings as follows:

“...evidence suggests that their integration into the labor market has been slightly faster than that of previous refugee cohorts. The survey indicates that 19 percent of refugees who arrived in 2015 were in a job by 2017, and data from the Federal Employment Agency indicate that 40 percent of working-age individuals who arrived from 2015 onwards were in work by September 2019—an accelerating trend. However, their average monthly earnings were about 55 percent of those of all full-time employees in Germany, mostly due to a disproportional engagement in low-skilled occupations and considerable underemployment in jobs below their skill levels. Labor market outcomes are shaped by newcomers’ completion of integration courses, legal status, and social networks; although legal status has (surprisingly) little effect on employment rates, it does shape the type of employment, for example, by shaping the wage level. Forty-three percent of refugees who were employed at least once in 2017 found their first job in Germany through social networks. Outcomes across indicators of labor market integration were much worse for women than for men, likely reflecting child-care responsibilities and other vulnerabilities.”

It is thus obvious that some basic findings are indeed available with regard to refugees in Germany, but one may emphasize that relatively little knowledge exists about the specific problems facing female refugees vis-à-vis finding a job. The subjective family situation of female refugees to some extent might differ from the situation of average male refugees in a critical way; female refugees might, for example, feel a rather stronger responsibility for the raising of children. As regards the international composition of refugees in Germany, one may also raise questions about the role of the respective home country of (female) refugees.

At the EU level, data on the integration of migrants and refugees is difficult, especially as there is no data on the educational levels of female refugees (Albrecht/Hofbauer Pérez/Stitteneder, 2021). Barriers facing female refugees in EU labor markets are relatively high if the women concerned have little or no work experience in the country of immigration or destination (Degler/Liebig/Senner, 2017). If we follow Knize-Estrada (2018) and Frank/Hou (2016), previous work experience on the part of the immigrant or refugee - irrespective of the country where such experience was acquired - has an influence on the chances of integration in the labor market. The female employment rate in the countries of origin is therefore of particular interest and can be considered a predictor of labor market integration in the respective country of asylum, at least in the first few years.

Analyses from various host countries show that the acquisition of host country language skills can have a positive effect on the social and economic integration of refugees (Ager/Strang, 2008; Chiswick/Miller, 2001), with language courses completed promptly after arrival in the host country apparently being particularly important. As far as impulses to improve labor market opportunities are concerned, mentoring can increase opportunities for young adults from disadvantaged families, which often include refugees (Resnjanskis et al., 2021); however, selective analyses that focus specifically on female refugees are still lacking.

It is also interesting to note that attitudes related to gender roles on the labor market positioning of women in OECD countries vary considerably and are relevant to the labor market in question (Fortin, 2005). In addition, the labor market-related gender roles recorded by Q33 in the World Values Survey (2021), for example, apparently play a role in labor market-related attitudes and behaviors: “If jobs are scarce, men should have more right to a job than women” (Q33) finds an approval rate of 11.5 and 9.2 among Wave 7 respondents in the WVS in France and Germany, respectively; while results for Greece, Italy, and Spain are 37.7 percent, 24.5 percent, and 10.8 percent, respectively. In contrast, the approval ratings in Turkey, Nigeria, Iran, Iraq, Pakistan are very high at 51.9 percent, 64.4 percent, 69.6 percent, 78.1 percent, and 85.3 percent, respectively.

Although there are previous contributions to the literature on the job prospects of refugees in Germany and other EU countries (e.g., Brücker/Kosyakova, 2020; Degler/Liebig, 2017; Salikutluk/Giesecke/Kroh, 2016), relatively little is known about the sub-group of female refugees; according to prior studies, they face more difficulties in accessing the labor market when compared to male refugees (Fachstelle Einwanderung, 2017). In Germany, there are some support measures and pilot projects directed at the labor market integration of refugee women. A study by the Bertelsmann Foundation (2016) shows that in the EU, the employment services of Denmark and Austria have also developed targeted measures for women. In the US, on the other hand, cooperation projects between the state and the private sector are particularly relevant for the targeted labor market integration of refugee women - important successes can be noted here (Farrell et al. 2011, 40f.). In addition, there are the programs of the Office of Refugee Resettlement that offer services for refugee women and combine childcare support with employment opportunities (Ott, 2013). In Australia, the “Stepping Stone” project for refugee women is especially noteworthy as a pilot approach providing refugee women with an impetus to engage in self-employment, with 44 percent of project participants successfully finding their way into self-employment (Bodsworth, 2013).

3. Description of the Sample, Variables, and Model

In this section, the collection of the random sample, the content of the questionnaire used for the survey, the dependent as well as independent variables, and the model used for estimation will be discussed.

Random Sample Collection

The Jobcenter Wuppertal (hereafter referred to as the Jobcenter), as the project partner, distributed the questionnaires by mail. Determining the selection of the sample of women to receive the questionnaire was carried out by the Jobcenter using their own database. As the study focuses on the employment perspectives of female refugees, the Jobcenter specifically selected that group of women from their database. In total, 5,533 German-language questionnaires were sent to recipients in Wuppertal, with 5,458 addresses obtained from the mailing list of the Jobcenter itself and 75 addresses obtained from the mailing list of the local department of immigration. Since it is known that not every recipient is able to read or understand the German language, questionnaires in additional languages (namely, English, French, Italian, Turkish, Albanian, Serbian, Arabic, Farsi, Kurmanji, Russian, Pashto, and Tigrinya) were available to download on a website run by the Jobcenter. The front page of the survey documents made sure to advertise this website so that women who are not able to read or understand German could still fill out the questionnaire using a translated version (likely in their native language) which was easily available online. The selection of aforementioned languages used for the translations was determined based on an analysis of the Jobcenter database with the goal of reaching as many refugee women as possible with a questionnaire written in their native language and not just in German. Furthermore, as an incentive to generate more returns from the questionnaire, respondents were entered into a raffle for three shopping vouchers. The respondents were asked to send the completed questionnaire back to the Jobcenter using a prepaid envelope provided for this purpose. There, in an initial step, the Jobcenter separated the personal data needed for entry to the raffle from the questionnaire itself, thereby ensuring the anonymity of respondents for the later analysis. Overall, there were 641 questionnaires returned, resulting in a rate of return of 11.6 percent. The data provided by these questionnaires were then digitalized by the EIIW team by hand generating a computerized database which was used for the subsequent analyses.

The sample collection also generated a control group, namely refugee women that have already successfully attained some type of employment. Employment in this instance includes a so-called “mini-job” [a “marginal” part-time job], part-time jobs, full-time jobs as well as self-employed women. In total, the control group consists of $n = 117$ women.

Description of the questionnaire

The questionnaire consisted of 42 questions of various types. Question types used in the questionnaire included both single choice and multiple choice questions, closed questions, open questions, and scaled questions (using a 1-6 scale, to avoid an ‘escape category’ or neutral middle, meaning that respondents have to indicate tendency (with 3 being slightly “negative”, 4 being slightly “positive”). The goal was to generate a meaningful dataset to answer the question of why female refugees have a much lower rate of employment compared to other

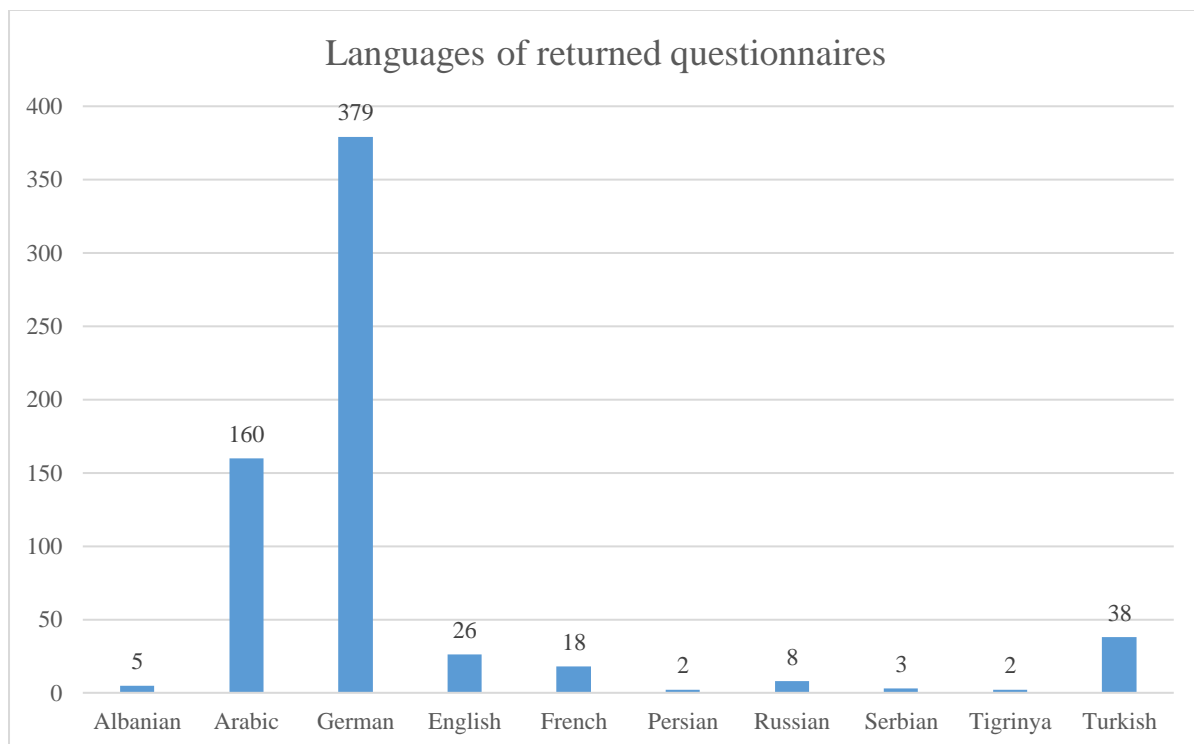
women in Wuppertal. The questionnaire was divided into several sub-sections, with each sub-section containing questions relating to that sub-section's particular focus:

- General information
 - Country of birth, year of birth, religion, hobbies, residency status, Wuppertal pass, electronic device availability
- Domestic and family situation
 - Family status, employment situation of partner, number, and age of children, childcare
- Language Skills
 - Speaking German at home / daily basis, integration course, work-related language course, other means to learn German
- School and Education
 - Years of schooling, type of qualification, vocational training, university degree
- Employment
 - Work experience before Germany, employment status, primary form of employment, work experience in Germany, financial support via the Jobcenter
- Scaled Questions
 - Assessment of institutional help
 - Assessment of statements, e.g., self-assessment of language/tech skills, statements regarding job requirements like an appropriate level of pay or part-time work
- Discrimination
 - Against Women, foreigners
 - Experienced discrimination
- Open Questions
 - Type of support measures
 - What helped most
 - What is lacking
 - Three most important aspects for an enjoyable workplace
 - Career wish

Sample Description

In this section, the sample will be described in more detail. As previously mentioned, the sample consists of refugee women who are registered with the Jobcenter Wuppertal. The total number of observations are $n = 641$. As the questionnaire was available in 13 different languages (including German), at first an overview of the distribution of the returned questionnaires in the various languages will be presented. Figure 1 shows this distribution. Most questionnaires were filled out and returned in German, namely 379 out of 641 (ca. 60 percent) questionnaires. The second most commonly used language to answer the survey was Arabic with 160 of the returned questionnaires being in Arabic (ca. 25 percent). In third place, was Turkish with just 38 out of 641 questionnaires (ca. 6 percent). It is clear, that the most prevalent and relevant languages – standing for circa 85 percent of returned questionnaires – were German and Arabic.

Figure 1: Languages used by respondents to complete returned questionnaires



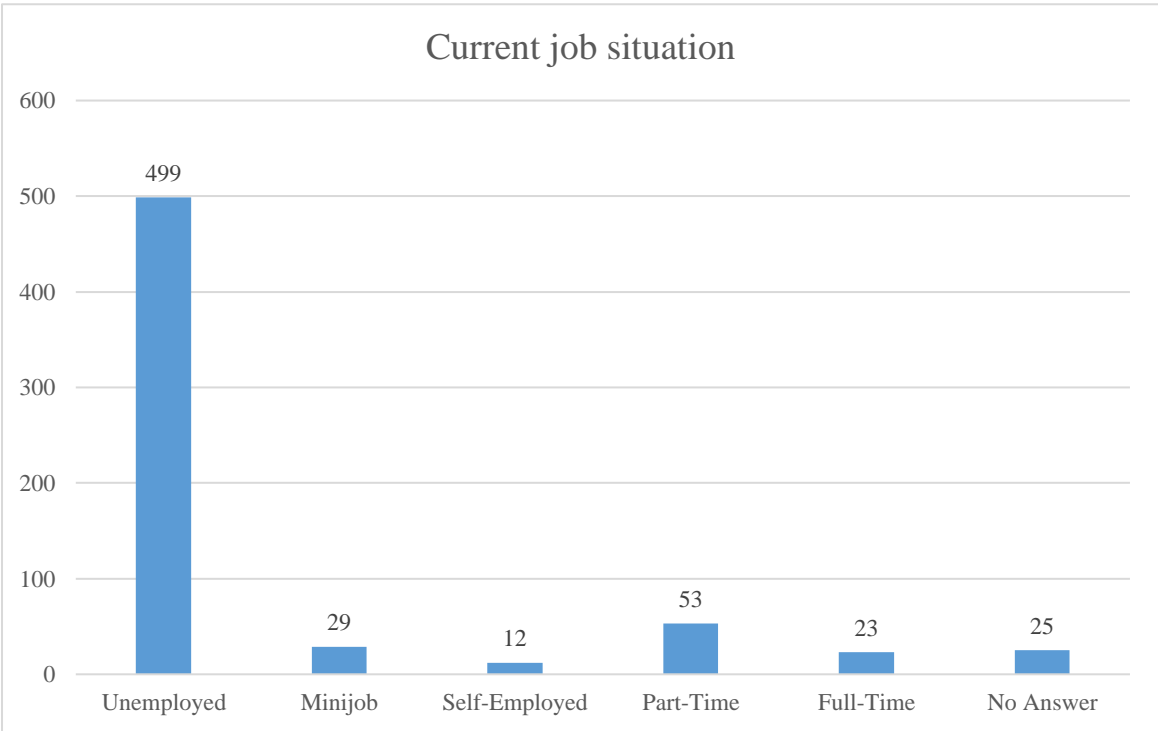
Source: Own calculations

The distribution of languages is also somewhat reflected when looking at the countries of origin of the respondents. In total, there were 65 different countries of origin represented by the respondents. A significant number of respondents were from Syria, namely 254 out of 641. This corresponds to circa 40 percent of the sample coming from one country: Syria. The second most named country of origin was Turkey with 65. Africa – taken as a whole - had the same number of returned surveys as Turkey alone. One can confidently say that a significant number of respondents come from the Middle East (Syria: 254, Iraq: 34, Iran: 10) with Turkey and the region of Africa as the second most represented country/region. Interestingly, with German being the most commonly used language to answer the questionnaire, this is a possible indicator

of good integration and of language courses being available to refugees. Another possibility is that the women received help from German-speaking friends or possibly their own children if those children are enrolled in a German school.

Figure 2 shows the current job situation of the women in the sample. This is also the research focus of this study, thus the main variable of interest. One can see that most of the women are unemployed, with 499 of 641 indicating this status in their returned questionnaire. 25 respondents provided no answer to this question, and these were added to the group of unemployed women, as one would expect an answer if someone indeed has employment. With this assumption, the total number of unemployed women in our sample comes to 524 which leaves 117 women in some form of employment. For these women, Figure 2 shows that a part-time job seems to be the predominant form of employment with 53 answers (ca. 45 percent) followed by full-time employment and “Mini-job”. A “Mini-job” in Germany is best described as a form of “marginal” part-time employment, where the total amount of monthly income is fixed at €450, meaning that in a “Mini-job”, the employee is not allowed to earn more than €450 in any one month. This translates into a total of 48.13 hours of work per month if one assumes the current (2020) minimum wage in Germany of €9.35 applies. Self-employed comes in last with only 12 answers out of 641 (or ca. 2 percent). Under German law, it is possible for self-employed persons with relatively low incomes, under specific conditions, to receive financial support from their local Jobcenter.

Figure 2: Current job situation of women in the sample



Source: Own calculations

Description of Variables

Dependent Variables

1. Binary variable indicating job; yes/no
2. Ordered variable indicating ascending hours worked, meaning 0 = unemployed, 1 = mini-job, 2=part-time job, 3=full-time job / self-employed

Table 1: Dependent variables

Variable	Definition	Type of Variable
Employment_dummy	Is 1 for employed, and 0 otherwise	Dummy that can have the value 0 or 1
Employment_ordered	Ordered variable indicating ascending hours worked as a measure of “more work”	Ordered from 0 to 4

Independent Variables

Table 2: Independent variables

Variable	Definition	Type of Variable
controlbias	Initials of the researcher who transferred the data from paper to excel	Dummy for each researcher, 6 in total
language_survey	Language of returned questionnaires	Dummy for each language, 10 in total
country_origin	Country of origin	Dummy for each country of origin, 65 in total
Religion	Religion of the respondent	Dummy for each answer, 7 in total
Age	Age of the respondent in years	Integer ranging from 18 to 72
immigration_since	Number of years the respondent has been in Germany	Integer ranging from 0 to 48
permit_d	Takes the value 1 if respondent has a residence permit	Dummy that can have the values 0 or 1
wupp_pass	Takes the value 1 if respondent uses the Wuppertal Pass	Dummy that can have the values 0 or 1
smartphone_skill	Takes the value 1 if respondent has a smartphone	Dummy that can have the values 0 or 1
tablet_skill	Takes the value 1 if respondent has a tablet	Dummy that can have the values 0 or 1
computer_skill	Takes the value 1 if respondent has a computer	Dummy that can have the values 0 or 1
marital_status	Marital status of respondent (Single, Married, Cohabiting partner, Separated/living apart, Divorced, Widowed)	Dummy for each answer, 7 in total
children_amount	The number of children of respondent	Integer ranging from 0 to 11

childcare_public	Takes the value 1 if respondent uses public childcare	Dummy that can have the values 0 or 1
childcare_own	Takes the value 1 if respondent takes care of child(ren) on their own	Dummy that can have the values 0 or 1
childcare_wishing	Takes the value 1 if respondent wishes for childcare	Dummy that can have the values 0 or 1
lang_everyday	Takes the value 1 if respondent speaks German on daily basis	Dummy that can have the values 0 or 1
integration_class_visit	Takes the value 1 if respondent visited integration classes	Dummy that can have the values 0 or 1
language_class_visit	Takes the value 1 if respondent visited work-related language classes	Dummy that can have the values 0 or 1
vocational_training	Takes the value 1 if respondent has vocational training	Dummy that can have the values 0 or 1
university_training	Takes the value 1 if respondent has a university degree	Dummy that can have the values 0 or 1
school_graduation	Variable showing highest attained school qualification	Ordered from 0 to 7, 0 being no school, 7 being high school (In Germany, <i>Gymnasium</i> equivalent)
working_experience_before_D	Ordered variable showing years of work experience before coming to Germany	Ordered from 0 to 4
need_language_training	Takes the value 1 if respondent needs language training	Dummy that can have the values 0 or 1
need_job_training	Takes the value 1 if respondent needs job training	Dummy that can have the values 0 or 1
friend_employed	Takes the value 1 if respondent knows other women that have found employment	Dummy that can have the values 0 or 1

Model Description

As mentioned in the variable description section, this study considers two key dependent variables. One being the *employment_dummy*, which is a dummy variable that takes the value of 0 for no employment and 1 for employment. This type of variable is also referred to as a binary variable. Although a binary variable can be modeled with a linear probability model, models that are better at modeling binary variables exist. These models are called probit and logit models (Stock/Watson, 2015).

Probit and logit regressions are nonlinear regression models that are specifically designed to model a binary dependent variable. As a regression with a binary dependent variable models the probability that this dependent variable takes the value of 1, it makes sense to use a nonlinear formulation that forces predicted values to be between 0 and 1. To this end, both probit and logit regressions make use of the so-called cumulative probability functions (c.d.f) as these functions produce probabilities between 0 and 1. For a probit regression, a standard normal c.d.f. is used, for a logit regression, a “logistic” c.d.f. is used. “In general, the regression model can be used to determine the expected change in Y arising from a change in X. When Y is binary, its conditional expectation is the conditional probability that it equals 1, so the expected change in Y arising from a change in X is the change in the probability that $Y = 1$.” (Stock/Watson, 2015).

For our second dependent variable, *employment_ordered*, we are presented with so-called ordered response data. Ordered response data arise when mutually exclusive qualitative categories have a natural ordering, similar to count data, but - unlike count data - they do not have natural numerical values. In the face of no natural numerical values, the use of OLS to carry out a regression analysis becomes inappropriate. Instead, a generalization of the probit model is used to deal with ordered response data, namely the ordered probit model. The ordered probit model models the probabilities of each outcome, conditional on the independent variables, using the cumulative normal distribution (Stock/Watson, 2015).

We use both probit and ordered probit models to analyze the sample and we additionally apply logit and ordered logit models to check our results for robustness.

4. Empirical analysis

In this section, we analyze our dataset empirically with econometric models where possible, supporting our regression analysis with parametric- and nonparametric test statistics and a qualitative discussion of the data. From our total of 641 observations, we first have to filter out those for which data with regard to critically important questions is missing, or where the answers given do not meet the expectations of a qualitative robustness check. As this would reduce our dataset to a fairly small number of observations for certain variables, we artificially complete the dataset where necessary.¹ After this step, a 601 observation baseline model can be constructed, covering the variables relating to our main hypotheses. All econometric findings for probit/ordered probit models are supported by robustness checks for which we use logit/ordered logit and additionally discussed qualitatively in the light of all available data, and with respect to data quality.

For variable selection in the baseline model, a second major issue is to include not only those variables for which we have good data quality but also to consider the interaction between explanatory variables (correlation issues) and dependent variables (endogeneity issues). In many cases, the question of whether to utilize this or that variable, where we observe good data quality in both but with high inter-correlation, was addressed.² This concern was also addressed in the nature of our questionnaire, as it was a major goal from the outset to allow for the cross-confirmation or checking of answers given therefore supporting our argument by working with reliable data. We also evaluate a number of endogenous variables via a Durbin-Wu-Hausman test (“Since when do you get support from the Jobcenter”, “How much working experience do you have in Germany”), indicating that those variables have too close an impact as explanatory variables for the questions of whether a woman has a job, or – if in employment – what kind of job the woman has (ranked from unemployed to fulltime job).

In addition, we observe some variables have a statistically significant impact on the dependent variables which, however, is embedded in more generic explanatory variables. For example, we observe the importance of the variable “religion” which, however, is strongly correlated with childcare variables. As it is therefore not possible to include those variables in a model together, we calculate separate sub-models which we then compare and discuss in the light of our baseline models. In detail, those variables describe the:

- County of origin or country of birth of the women (utilization via country-fixed model);
- Religion (interaction to discrimination variables and childcare);
- Marital status (separate calculations necessary due to smaller dataset);
- Highest level of school graduation reached (strong interaction, lack of data quality/comparability).

¹ To give an example, for the variable “*childcare wishing*” we had a satisfactory amount of responses from women who report having children; women without children, on the other hand, did not select an answer here. In the course of our analysis, we evaluate that women without children have no need for childcare and therefore we can assign zero to the “*childcare wishing*” dummy, avoiding massive data loss.

² Giving another example, we have to decide whether to include the dummy “*have_children*”, or ordinal variable “*children_amount*”, describing the number of children the subject has.

Separate empirical models are run with regards to those variables and we additionally put a stronger emphasis on our descriptive data for addressing the impact of those variables.

Baseline Models

Our first baseline models estimate whether a woman is likely to have a job or not via simple probit estimation. The dependent variable describes whether a woman is in any kind of employment or not, whereby the dummy variable becomes zero if “currently unemployed” was chosen. In a cumulative method, we commence with a basic model (1) checking for the personal family and migration background, adding in university education and professional training in model (2), previous working situation in the country of origin (3), and personal demand for continuing training (4). Thus, we are able to observe an interaction between variables with relatively minor correlations, information which would otherwise be lost.

Table 3: Probability of women to be in employment, probit regression results

VARIABLES	(1) probit employment	(2) probit employment	(3) probit employment	(4) probit employment
Age	0.0135* (0.00793)	0.0111 (0.00806)	0.00442 (0.00899)	0.00483 (0.00970)
immigration_since	0.0375*** (0.00891)	0.0363*** (0.00915)	0.0403*** (0.00949)	0.0243** (0.0105)
permit_d	-0.353** (0.141)	-0.346** (0.143)	-0.368** (0.144)	-0.418*** (0.156)
wupp_pass	0.0247 (0.155)	0.0400 (0.156)	0.0243 (0.156)	0.233 (0.171)
smartphone_skill	-0.248 (0.284)	-0.208 (0.292)	-0.208 (0.294)	-0.387 (0.321)
tablet_skill	0.0682 (0.178)	0.0356 (0.181)	0.0195 (0.182)	-0.101 (0.199)
computer_skill	0.443*** (0.156)	0.403** (0.160)	0.409** (0.160)	0.471*** (0.176)
children_amount	-0.0287 (0.0439)	-0.0135 (0.0444)	-0.00540 (0.0447)	0.0177 (0.0471)
childcare_public	0.367* (0.194)	0.364* (0.196)	0.335* (0.197)	0.514** (0.221)
childcare_own	0.282 (0.217)	0.318 (0.219)	0.273 (0.222)	0.571** (0.244)
childcare_wishing	-0.461** (0.212)	-0.528** (0.216)	-0.575*** (0.218)	-0.416* (0.240)
lang_everyday	0.306** (0.156)	0.255 (0.159)	0.227 (0.160)	0.128 (0.179)
integration_class_visit	0.136 (0.174)	0.157 (0.176)	0.142 (0.178)	0.193 (0.191)
language_class_visit	0.207 (0.143)	0.169 (0.145)	0.169 (0.146)	0.101 (0.159)
university_training		-0.146 (0.171)	-0.190 (0.173)	-0.0391 (0.192)
vocational_training		0.518*** (0.150)	0.449*** (0.155)	0.375** (0.172)
working_experience_before_d			0.0817* (0.0475)	0.113** (0.0530)
need_language_training				-0.906*** (0.193)
need_job_training				-0.622*** (0.193)
Constant	-1.857*** (0.430)	-1.896*** (0.440)	-1.733*** (0.451)	-0.965* (0.496)
Observations	603	603	603	603

Standard errors in parentheses

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

- We note that **younger women** generally have a significantly reduced chance to be in employment, we are however able to identify this as mainly a side-effect of a lack of vocational training and university education.
- The variable “*immigration_since*” describes **how many years women have already lived in Germany** and is highly significant in all our models. Therefore, we note that the probability of finding a job rises with the number of years spent in Germany – when controlling for training, language skills, age, etc.; this result thus describes an

unobservable effect which was not controlled for in the questionnaire and therefore shall be discussed extensively in regards to our qualitative analysis and the policy conclusions as well.

- The question of whether or not women have **residency permits** is also found to be highly significant in all models, indicating that women with a permit are less likely to be in a job. While this finding is somewhat controversial in a standard political perspective, one has to note that this probably lies in the nature of the questionnaire, as women with German citizenship did not answer the question on having a residency permit – the interaction with the “length of time period already living in Germany”, however, is controlled for. One can conclude that the status of residence is a critical variable in the model, however, one has to trace the effect back to qualitative statistics in order to draw adequate conclusions.
- The variable checking for the effect of having the “**Wuppertal-Pass**” (which gives the passholder enhanced access to certain local services) is not found to have a significant effect on women’s job situation.
- Use (private) of a **smartphone, tablet, or computer** was checked, and how good women would evaluate their own skills with those tools. While smartphone skills and tablet skills do not show a significant impact on the probability of being in a job, **computer skills** are highly relevant regardless of the further training variables.
- Whether or not women have **children** and, if so, how many children women have does not seem to impact the probability of employment, as long as we additionally control for **childcare variables**. If women have **access to childcare facilities their probability of being in a job significantly rises**. On the other hand, if women do not have access to but state that they have a need for childcare services, their probability of being employed significantly drops.
- Although several **language-skill variables** were tested, only “everyday use of German language” was included in the models due to correlation issues. While language is found to be a critical factor for being in employment, this effect could be implicitly included as an element in vocational training, similar to the age effect. **Integration and language class visits** on the other hand are not found to have a significant impact on job probability.
- The variables controlling for **university degree and job apprenticeship** show mixed results. A university degree does not show a significant impact on the probability of being in a job - this matter shall be investigated further below. Vocational training, however, has a highly significant impact on employment, also showing weak significant correlation to the **working experience women had before coming to Germany**, which makes sense. While working experience abroad has a fairly small impact, job training seems to be one of the major factors for being in a job.
- Finally, and in line with our previous findings, the probability of being in a job drastically drops if women themselves state that they are **in need of either job or language training**, whereby language training seems to be especially important. This is not a finding which is straightforward to interpret, as while this effect could be

assigned to women who are fairly recent arrivals in Germany, which makes sense statistically as we see a drop in the effect of the “*immigration_since*” variable from model (3) to model (4), we do not find a significant effect of integration and language class visits. One possible explanation could be that either the knowledge transferred in classes tailored to refugees is not sufficient to prepare the women for the German job market, or that the women did not attend those classes for a long enough period (as they either are fairly new to Germany or have stopped participating in such classes prematurely).

Ordered Probit- and Logit Models

We now rank the dependent variable of “*employment status*” from zero to three, where

- 0 = unemployed
- 1 = mini-job
- 2 = part-time job
- 3 = full-time job/self-employed.

Ordered probit and logit models can now be run, analyzing the factors that impact moving to a higher rank in employment status, whereby we follow the same reasoning as in the above analysis with regards to the employment dummy. The results support our interpretations above and show clear robustness of econometric model choices, as the (ordered) logit models support the significance findings of (ordered) probit models respectively.

Table 4: Employment probability, (ordered) probit and logit results

VARIABLES	(5) probit employment	(6) logit employment	(7) oprobit employment	(8) ologit employment
Age	0.00449 (0.00965)	0.00806 (0.0174)	-0.000291 (0.00907)	0.000380 (0.0165)
immigration_since	0.0240** (0.0105)	0.0390** (0.0184)	0.0196** (0.00964)	0.0361** (0.0169)
permit_d	-0.420*** (0.156)	-0.802*** (0.283)	-0.360** (0.144)	-0.734*** (0.265)
wupp_pass	0.231 (0.171)	0.380 (0.319)	0.264* (0.160)	0.397 (0.304)
smartphone_skill	-0.402 (0.322)	-0.771 (0.610)	-0.489 (0.300)	-1.035* (0.566)
tablet_skill	-0.107 (0.199)	-0.149 (0.350)	-0.0851 (0.183)	-0.0850 (0.321)
computer_skill	0.470*** (0.176)	0.810** (0.317)	0.452*** (0.161)	0.762*** (0.288)
children_dummy	0.123 (0.220)	0.288 (0.389)	0.0539 (0.202)	0.252 (0.359)
childcare_public	0.486** (0.229)	0.824** (0.405)	0.326 (0.205)	0.527 (0.355)
childcare_own	0.543** (0.251)	0.798* (0.463)	0.554** (0.235)	0.706 (0.440)
childcare_wishing	-0.450* (0.253)	-0.914* (0.472)	-0.471** (0.238)	-0.896** (0.445)
lang_everyday	0.128 (0.178)	0.172 (0.334)	0.103 (0.168)	0.123 (0.320)
integration_class_visit	0.187 (0.191)	0.375 (0.354)	0.105 (0.176)	0.367 (0.334)
language_class_visit	0.0960 (0.159)	0.207 (0.292)	0.102 (0.148)	0.266 (0.276)
university_training	-0.0395 (0.192)	0.0482 (0.339)	-0.100 (0.176)	-0.0466 (0.312)
vocational_training	0.380** (0.172)	0.718** (0.305)	0.359** (0.158)	0.722** (0.282)
working_experience_before_d	0.111** (0.0527)	0.212** (0.0957)	0.114** (0.0492)	0.192** (0.0903)
need_language_training	-0.907*** (0.192)	-1.755*** (0.361)	-0.870*** (0.186)	-1.675*** (0.352)
need_job_training	-0.627*** (0.193)	-1.235*** (0.366)	-0.543*** (0.187)	-1.146*** (0.360)
Constant cut1			0.580 (0.460)	0.965 (0.840)
Constant cut2			0.833* (0.462)	1.438* (0.845)
Constant cut3			1.471*** (0.465)	2.677*** (0.857)
Constant	-0.963* (0.495)	-1.579* (0.898)		
Observations	603	603	603	603

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

- Surprisingly, we find a positive interaction between access to the Wuppertal Pass and job probability in model (7), a finding which, however, is not robust in econometric terms. It does nevertheless present a reason to take a closer look at the descriptive statistics.
- *Smartphone_skills* interact negatively with job probability in model (8), however, it is not economically robust
- The variable “*childcare_own*” which describes whether the woman takes care of her own child is positive and significant in models (5) – (7), but has to be interpreted with care, as women without children would tick a “no” here; this is similarly the case with the variable “*childcare_public*”, which makes interpretation less straightforward. Variables are however needed in order to correctly control for “*childcare_wishing*”, describing the women’s need for childcare. That those results do not reflect a significant parameter in model (8) is an indication that one should reflect on the results on the basis of qualitative statistics as well.
- All other results from model (4) are mirrored in Table 4 and therefore seem to be rather robust.

Table 5: Probability of employment regarding country-/ region of origin, religion and cultural variables

VARIABLES	(9) employment_dummy	(10) employment_dummy
immigration_since	0.0399*** (0.00725)	0.0324*** (0.00773)
computer_skill	0.251* (0.139)	0.232* (0.140)
vocational_training	0.362*** (0.139)	0.383*** (0.139)
syria		-0.406** (0.172)
africa		-0.0946 (0.186)
europa		0.0947 (0.190)
muslim		-0.288* (0.170)
christian		-0.110 (0.214)
country_origin_encode	-0.00276 (0.00380)	
religion_encode	-0.105*** (0.0376)	
martial_status_encode	0.0253 (0.0437)	
school_graduation_encode	-0.0118 (0.0403)	
Constant	-0.849** (0.367)	-1.041*** (0.179)
Observations	640	640

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

We expand the most impactful variables of the base model with origin country effects and variables describing cultural aspects such as religion³, family status and education in the form of highest school degree achieved. In model (9) of Table 5, we see that religion generally has a highly significant impact on the probability of being employed or not and is more important as an additional control variable than school education, which on the other hand is also embedded in professional education (remains highly significant) and further skills important in a job (such as computer skills for example). While we refrain from further analyzing the marital status variable, which we want to test in combination with children, childcare, and job probability as we see major importance in that field, we further break down the origin countries into three separate categories, as emphasized by descriptive statistics (see the previous section). Model (10) reveals that women have significantly worse job perspectives if they have either migrated from **Syria** and/or are **Muslim** in terms of religious confession. While we see a negative coefficient for Africa and a positive coefficient for European countries, those are not found to be significant and therefore have a rather small impact. Picturing the findings in our observations, the lack of significance can be treated as a data issue, as with 254 women coming from Syria, we have a large sub-group which affects the data in a significant way. We, therefore, conclude that women from Syria are less likely to be integrated into the German labor market, regardless of other variables such as education, job skills, the amount of years they are already in Germany, and their religion as an important cultural variable.

Table 6: Probability of using childcare services, taking care on their own or demand for childcare services

VARIABLES	(11) childcare_public	(12) childcare_own	(13) childcare_wishing
Age	-0.0354*** (0.00933)	-0.0276*** (0.00928)	-0.0339*** (0.00842)
muslim	-0.322* (0.180)	0.308 (0.197)	0.0401 (0.176)
christian	0.365 (0.222)	-0.747** (0.351)	0.573*** (0.216)
immigration_since	0.0168* (0.0100)	-0.0221* (0.0124)	-0.00372 (0.00996)
permit_d	-0.137 (0.145)	-0.116 (0.155)	0.197 (0.143)
children_amount	0.113*** (0.0430)	0.145*** (0.0436)	-0.00314 (0.0432)
married	0.339** (0.155)	0.188 (0.164)	-0.0573 (0.141)
Constant	0.0887 (0.348)	-0.289 (0.362)	0.468 (0.328)
Observations	494	494	494

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

³ Here, we assume that the variables concerning religion capture general cultural aspects as well (and not strictly just religious aspects)

Table 6 reveals the results of probit regression analyses for the usage of childcare services (11), women taking care of their children on their own (12), and the demand for childcare services (13). It has to be noted that we selected only women who have children (roughly three-quarters of respondents) and additionally control for the number of children they have, as this potentially impacts childcare decisions. For the same reasons, we include marital status as a dummy variable of being married, the legal immigration status, and for how many years the women have already been in Germany and therefore are “more familiar” with the German system and culture. We control for religion in order to measure the effect religious communities have on childcare services, childcare demand, and women’s role in the family.

- We find that **age** has a strongly significant impact on childcare decisions, even though the size of the effect is fairly small. It is utilized as purely a control variable in our models.
- While **Muslim women** make significantly less use of childcare services (model 11) than the control group of other religions, it is found that **Christian women** tend to outsource childcare (model 12), which is also mirrored by the “wish for childcare” (model 13) where Christian women are significantly overrepresented. Even though the characteristic of Christian is not significant in model (11) and Muslim not significant in model (12), the results combined give quite a clear picture that Muslim women tend to take care of their children on their own, while Christians prefer childcare services. The question about desire for childcare services confirms that this childcare distribution is rather a matter of choice for the women concerned.
- In order to control for the matter of choice and family background, we find that **married women** tend to make more use of public childcare services than the respective control group in the family status (including single, divorced, living separately, or in “patchwork” families). The variable measuring the number of years since the women have arrived in Germany - therefore a possible proxy for how integrated the women are in the German system – also shows that the longer women live in Germany, the more likely they are to use childcare facilitates and the less likely they are to take care of their own children.

Table 7: Probability of type of childcare, controlling for employment

VARIABLES	(14) childcare_public	(15) childcare_own	(16) childcare_wishing
Age	-0.0398*** (0.00972)	-0.0279*** (0.00933)	-0.0306*** (0.00844)
muslim	-0.269 (0.182)	0.315 (0.197)	-0.0200 (0.179)
christian	0.375* (0.224)	-0.748** (0.351)	0.571*** (0.219)
immigration_since	0.00895 (0.0107)	-0.0231* (0.0126)	0.00351 (0.0103)
permit_d	-0.109 (0.147)	-0.115 (0.155)	0.165 (0.145)
children_amount	0.120*** (0.0438)	0.145*** (0.0436)	-0.00446 (0.0433)
married	0.330** (0.156)	0.189 (0.164)	-0.0566 (0.142)
employment_dummy	0.533*** (0.179)	0.101 (0.202)	-0.642*** (0.199)
Constant	0.138 (0.356)	-0.290 (0.362)	0.449 (0.329)
Observations	494	494	494

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Following the hypothesis that women who are employed have a different preference pattern for childcare, we analyze how the effects change when we additionally control for employment in Table 7. Model (14) reveals that the children of women who are in some kind of employment are significantly more likely to visit childcare facilities. It is also found that the demand for childcare facilities is especially high amongst women who are not in employment. This can be interpreted as a signal from unemployed women that improving their access to childcare services could improve their employment status as well. Regarding religious interaction between employment and childcare, we note that the results in Table 7 are in line with previous results. While we see the variable for Christian women to be significant in both model (14) and model (15), the Muslim variable loses significance by including the employment dummy. This is, however, due to a high correlation between both variables, as can be seen in Table 3 where we only find significant interaction between Muslim and employment, but not Christian and employment.

Table 8: Probability of type of childcare, controlling for employment and child age

VARIABLES	(17) Childcare_public	(18) Childcare_own	(19) Childcare_wishing
Age	-0.0495*** (0.0118)	-0.00189 (0.0117)	-0.00980 (0.0102)
muslim	-0.330* (0.186)	0.333 (0.206)	0.0297 (0.185)
christian	0.292 (0.234)	-0.992*** (0.370)	0.413* (0.226)
immigration_since	0.0104 (0.0113)	-0.0199 (0.0137)	0.00342 (0.0107)
permit_d	-0.177 (0.152)	-0.156 (0.165)	0.0734 (0.149)
children_amount	0.0853* (0.0516)	0.0318 (0.0532)	-0.118** (0.0524)
married	0.419*** (0.162)	0.0656 (0.173)	-0.133 (0.146)
employment_dummy	0.489*** (0.184)	0.121 (0.211)	-0.591*** (0.203)
child_0_3	-0.541*** (0.171)	0.822*** (0.174)	0.464*** (0.153)
child_4_5	0.323* (0.166)	-0.119 (0.191)	0.402** (0.159)
child_6_10	0.352** (0.152)	0.802*** (0.166)	0.496*** (0.143)
Constant	0.548 (0.448)	-1.604*** (0.479)	-0.463 (0.411)
Observations	494	494	494

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

In models (17)-(19) we turn to the next relevant variable, namely the age of the children. For this purpose, we add the variables *child_0_3*, *child_4_5*, and *child_6_10* to our model, which indicate whether respondents have children in the relevant age groups. In general, we observe that the significant variables and the results from the previous models do not change for the most part. Only the variable *children_amount* decreases in significance level. Parents with children aged 0-3 years can claim parental leave, i.e. they can devote themselves fully to childcare if they wish and do not have to be available to the labor market or the integration measures of the Jobcenter. During this time, they are listed as “non-active according to § 10 SGB II”, i.e. they are officially neither unemployed nor seeking work. They can withdraw their decision to opt for the three years of parental leave at any time and make themselves available to the labor market earlier if they so wish. In the case of couples caring for the joint child, only one parent can take parental leave at a time. Oftentimes, this is the woman. From the age of 1 year, there is a legal entitlement of children to a childcare place. However, parental leave in the sense of § 10 SGB II only ends when the child is 3 years old.

The fact that women with children between 0-3 years are on parental leave can also be seen in models (17)-(19). The variable *child_0_3* is negative for public childcare and positive for own childcare. This suggests that women choose to take parental leave with children between 0-3

years. However, in model (19) we also get a positive result for this variable, which allows us to conclude that this decision is not necessarily voluntary. For the variables representing children in the age groups of 4-5 and 6-10, we observe a positive effect on the probability of using public childcare, which means that women with children in these age groups are more likely to use public childcare. We also observe this positive effect for the variable *childcare_wishing*. This means that women with children in these age groups are more likely to express a desire for childcare. On the one hand, this is logical, as older children require less parental care, but it also suggests that there are too few childcare places available for children in this age bracket. In model (18), we observe that women with children aged 6-10 are more likely to care for their children themselves. This can be seen in the positive sign of the variable *child_6_10*. A conceivable explanation here is that since the children go to school, part of the care takes place there, so that this fulfils the desire or need for additional care and the women can/want to care for themselves.

When we control for child age, we again find significant effects for both Christian (negative effect, model (18)) and Muslim (negative effect, model (17)). This confirms our previous results from models (11) and (12). It should be further investigated why this effect persists for these two groups.

5. Reflections on Descriptive Statistics

In this section, the results from the probit estimations are compared with descriptive statistics from our data. In essence, variables that are found to have a significant positive or negative effect on employment probability should also be reflected in the descriptive statistics of our sample. For this, we initially focus on the results of model (4) from our baseline models. Since the childcare variables are examined in more detail separately, they will be excluded from the reflections on model (4) and discussed in another paragraph.

The variables that showed statistical significance in model (4) (excluding childcare variables) are **immigration_since**, **permit_d**, **computer_skills**, **vocational_training**, **working_experience_before_d**, **need_job_training**, and **need_language_training**.

For **immigration_since**, model (4) found a positive effect on the probability of being in a job meaning that the longer the respondents have been in Germany, the higher the chance of being in employment. Therefore, one would expect that the average of **immigration_since** for women who are employed (ca. 18 percent of the sample) is higher than for unemployed women. This is also reflected by the data. The average number of years in Germany for women who are in employment is 12.3 years and for women who are not in employment this figure is 6.9 years. This further reinforces our previous findings.

Model (4) predicts a negative effect for the variable **permit_d** on the probability of being employed. Following this logic, women with a residence permit should have a harder time finding work than women who do not have/need such a permit. Women without a permit make up ca. 29 percent of the sample and women with a permit make up the remaining 71 percent. For the group of women without a permit, 28 percent are in employment, whereas for the group with a permit only 14 percent of the women are in employment. Again, the data is consistent with the prediction made by the probit model in that women with a permit are more likely to be unemployed than women without a permit.

The next variable which is found to be statistically significant is **computer_skills**. According to the results of model (4), a positive effect of **computer_skills** on employment probability is expected to mean that women who have access to and use a computer in private should have a higher chance of being employed. This would be reflected in the data that the group of women with access to a computer have a higher share of employment than the group of women who do not have access to a computer. We find that for the group with access to a computer (24 percent of the sample) 27 percent have some kind of work, whereas in the group without access to a computer (76 percent of the sample) only 16 percent are employed once again confirming the predictions of probit model (4).

Vocational_training shows a highly significant and positive effect on employment probability. The model estimates that having vocational training increases the probability of being in employment. Therefore, one would expect that of the women with vocational training (25 percent of the sample), a higher share is in employment than of the women without vocational training (75 percent of the sample). The data confirm this with 31 percent of women who have received vocational training having a job compared to only 14 percent of women without vocational training.

Another significant variable is that measuring the years of work experience accumulated by women before coming to Germany, **working_experience_before_d**. Probit estimation finds a positive effect for this variable indicating that more the work experience the women have accumulated before coming to Germany, the higher their chance of finding a job in Germany. According to this logic, one would expect to find a higher average of prior work experience in women that have employment compared to women who are unemployed. The data confirms this by showing an average of 1.8 for women that have work compared to an average of 1.5 for women that are unemployed⁴. Although the difference of the averages for both groups is relatively small, it is still supportive of our results.

The last two significant variables are **need_job_training** and **need_language_training** describing respondents' self-assessment of their need for language training and job training. 49 percent of women say that they need job training and 59 percent of women say that they need language training. Both variables are highly significant and negative in our probit estimation indicating that women who self-report needing either job or language training have a significantly lower chance of finding employment. Therefore, one would expect to find a significantly lower share of employed women in the groups that answered yes for job or language training. This is indeed the case. For women that say they need job training, only 6 percent have a job compared to 30 percent in the group of women that answered no in response to the need for job training. We observe a similar picture when it comes to the need for language training. For the group that responded with yes, only 7 percent are in some form of employment whereas 35 percent of women that feel they have no need for language training have work. The results paint a very clear picture in that language as well as job training are of significant importance when it comes to the likelihood of finding a job.

Effects of country and religion on employment probability (model (10))

In model (10) the effect of the country of origin, as well as the religious confession of respondents get examined in more detail. Results show significance for **Muslim** and **Syria** with a negative sign, indicating that for **Muslim** women as well as **Syrian** women the probability of being in employment reduces. The majority of our sample are **Muslim** women (68 percent). Within this group, only 14 percent have work compared to the rest (32 percent) where 27 percent have some kind of job. The data confirms the findings of the model in that **Muslim** women seem less likely to have a job. Regarding women from **Syria**, they make up 40 percent of the sample, leaving 60 percent of observations for all the other countries. Here, the data shows an even bleaker picture. Only 7 percent of **Syrian** women are in some form of employment compared to 25 percent of women who are not from Syria. Again, the data confirm the findings of the model in that **Syrian** women seem to be significantly disadvantaged when it comes to employment chances when compared with their counterparts from other countries.

⁴ The variable is on a scale of 0 to 4 with 0 being no working experience prior coming to Germany and 4 being 4 and more years of work experience. Therefore, one can argue that this of course affects the average for both groups explaining on one hand the relatively small average for work experience and on the other hand the relatively small difference for both averages.

Childcare variables as independent variables and their effect on employment

The variables for childcare are the topic of the following paragraph. Here, only observations for women with children are considered. The variables of interest are **childcare_public**, **childcare_own**, and **childcare_wishing**.

At first, the relationship between childcare and employment will be examined. For this, we follow the same procedure as in the previous paragraph. **Childcare_public** is the first variable that will be examined. Here, women that do not use public childcare make up 80 percent of the observations of women with children, meaning that 20 percent of the women in our sample have access to and make use of public childcare services. For the group that uses public childcare, the data shows that 28 percent of these women are in employment. For the other group, only 18 percent of women are in employment - thereby offering support for the findings of probit model (4) that the use of public childcare increases the chances of being in employment.

The variable **childcare_own** describes if women take care of their children on their own, i.e. without reliance on public childcare. In the probit model, women without children were also included in the results so a positive effect on the probability of being in employment has to be interpreted with caution. 19 percent of women with children take care of their children on their own whereas 81 percent do not. Of the group that does take care of their children on their own, only 14 percent of the women are in some form of employment. By contrast, 18 percent of the women have employment in the other group. Here, the data does not support the findings of model (4), but as previously mentioned, this could be because in model (4) women without children are also included.

The last variable is **childcare_wishing** and refers to the wish of women for childcare services. 72 percent of the women in the sample do not wish for childcare services, leaving the remaining 28 percent who do wish for childcare services. The model estimates a clear negative effect of the wish for childcare on the probability of being in employment. The data confirms this result. Only 7 percent of women who wish for childcare services are in some form of employment, compared to 21 percent for the other group; a three-fold difference.

Childcare variables as the dependent variable (Table 7)

Childcare_public will be the first of the three childcare variables for which the estimation results (model (14)) will be compared with the data. The variables that showed significance in the estimation were **Age**, **christian**, **children_amount**, **married**, and **employment_dummy**. For **age**, the model predicts a negative effect on the probability of using public childcare indicating that older women make less use of public childcare services. Our sample shows 20 percent of women use public childcare offerings and the average age here is 36.1 years, whereas for women who do not use childcare, the average age is 38.7 confirming the predictions that older women seem to make less use of public childcare services. The next variable of interest is **christian**. Here, the results show a positive effect of this variable meaning that Christian women are more likely to use public childcare than women of other religions. These predictions can also be found in the sample. 17 percent of women are Christian and within this group, 30 percent use public childcare. By comparison, 83 percent of the sample are not Christian and within this group, only 19 percent use public childcare. The next prediction regards the variable

children_amount which describes the number of children a woman has. Here, we estimate a positive effect, i.e., that women with more children are more likely to use public childcare services. If this holds true, the average number of children for women that use public childcare will be higher than those of women who do not use childcare. This is indeed the case. The average number of children for women that use public childcare is 2.7, whereas it is 2.4 for the group that does not use childcare. For **married** women, model (14) predicts again a positive effect on the usage probability of public childcare services. 64 percent of women are married and 22 percent of this group use public childcare. By comparison, 36 percent of women are in some other form of relationship and only 18 percent of this group use public childcare. A subtle difference, but a difference nonetheless. Lastly, the effect of employment will be discussed. The model predicts a positive effect of **employment_dummy** on the probability of women using public childcare services, meaning that women who work are more likely to use public childcare. 17 percent of women with children in our sample have some form of employment and 33 percent of this group use public childcare services compared to 83 percent of women with children who are unemployed whereas of this group only 18 percent use public childcare services. In sum, the data supports the findings for all five significant variables.

For **childcare_own**, describing women that want to take care of their child/children on their own, model (15) found four variables to be statistically significant: **age**, **christian**, **immigration_since**, and **children_amount**. Age is expected to have a negative effect meaning that older women are less likely to take care of their children on their own. Therefore, one would expect to find the average age of women, that answered no to the question of if they take care of their children on their own, to be higher than for the women who answered yes. This is indeed the case with 19 percent of women answering yes having an average age of 35.7 compared to the group the answered no (81 percent) with an average age of 38.8. The variable **christian** was also found to have a negative effect meaning that Christian women are less likely to take childcare into their own hands. 17 percent of respondents are Christian with only 2 percent of that group taking care of their children on their own compared with 22 percent in the other group. **Immigration_since** was also found to be statistically significant and with a negative effect. The logic here is the same as the logic for the age variable, i.e., a negative effect meaning that women who have been longer in Germany are less likely to take care of their children on their own. For women that take care of their children on their own, the average number of years spent in Germany is 5.6 compared to 8.2 for the remaining group. The number of children, represented by **children_amount**, was estimated to have a positive effect, meaning that women with more children are more likely to take care of them on their own. The data supports this prediction. 19 percent of women in our sample take care of their children on their own and on average they have 3 children, compared to their counterparts where the average number of children is significantly lower at 2.4 In sum, the data supports the finding for all four significant variables.

Finally, **childcare_wishing**, where women were asked if they had a wish for childcare, model (16) found the following three variables to be statistically significant: **age**, **christian**, and **employment_dummy**. The effect of **age** was estimated to be negative. 28 percent of women with children have answered yes to the question of if they wish for childcare services and their average age is 35.5. For the remaining women who answered no, the average age is 39.2 thereby confirming the predictions of model (16) regarding the negative effect of age on the probability of women wishing for childcare. For the variable **christian**, the estimated effect was positive indicating that Christian women are more likely to wish for childcare than the rest of our sample.

17 percent of the women in our sample are Christian and from this group 41 percent wish for childcare. Compare this with the remaining 83 percent where only 25 percent wish for childcare. Again, the model's estimates are confirmed. The last variable is the employment variable **employment_dummy** for which a negative effect was estimated. This means that the model predicts that women who are employed are less likely to wish for childcare than women who are unemployed. This is indeed also found in the data. 17 percent of women with children are in some form of employment and only 11 percent of these women wish for childcare. By comparison, of the remaining 83 percent of women who are unemployed, and 31 percent of that group wish for childcare. In sum, the data supports the finding for all three significant variables.

Further Variables

While a total of 70 percent of our sample reported having visited any kind of integration class, the share is 74 percent for women who have migrated from Syria. When it comes to visiting language classes, 41 percent of total women participated in German language classes, whereas 45 percent of women from Syria participated in such classes. 5 percent of the total sample, however, did not answer the question concerning visiting language classes. The pattern of integration and language class visiting changes little if we look at specific timeframes with regard to when the women migrated, e.g., the frequencies of integration class visits did not rise or fall over time. For school education, 27 percent of women answered "Gymnasium" (highest school leaving degree in Germany), 13 percent "Realschule" (middle school), and 9 percent "Hauptschule" (basic school) making "Gymnasium" the largest share for education. This does not necessarily translate into employment as 20 percent of women with a "Gymnasium" qualification have a job, whereas 28 percent of the women with a "Realschule" qualification and 25 percent of women with a "Hauptschule" equivalent qualification are in employment.

We conclude the empirical chapters with the main results on what aspects interact with the probability of women being active in the labor market. All findings are statistically robust and have been discussed with the descriptive numbers from the overall survey with 641 participants.

- It is found that the number of years the women have already lived in Germany is positive and significant for employment probability, a result which holds in a broad framework of control variables; this effect can be traced back to legal status, settlement, and cultural aspects amongst others and serves as a variable capturing all unobservable factors for which we do not specifically control for in our model and/or the survey; effects shall be deducted further in a discussion on policy conclusions.
- Women from Syria are significantly harder to integrate into the German labor market as compared to the control group; additionally, it is found that Muslim women are harder to integrate with regards to women of other religious denominations (very likely that these variables capture cultural aspects as well and not just religious aspects); while religion is analyzed in particular relation to the family, the country background (likely indicating a war refugee) and culture (Middle East) negatively interacts with employment probability.
- Concerning origin (country) specific control groups, we find weak evidence that women from African countries are harder to integrate into the labor market, whilst women from

Europe tend to find a job more easily (regardless of their native language, culture, family, and education).

- Characteristics of residence permits, green cards, etc. are highly relevant for the employment situation; we especially find that women who have a migration status in accordance with §§ 25 (1), (2) or (3) (residence permit for humanitarian reasons) are most certainly without a job.
- We find computer skills and the utilization of computers in everyday life to be very important for women and their probability of having/finding a job; the use of smartphones and smartphone skills are, however, found to negatively impact job probability, even though evidence for that is rather weak and might not always hold in future studies (however, modern smartphone access might simply distract attention from opportunities to learn more about potential job openings).
- Professional/vocational education is highly relevant for the probability of being in employment, regardless of if the education has been attained in Germany or abroad; (advanced) job training therefore should be one of the focus points for unemployed women in order to find a job.
- This is underlined by the need for job- and language training; most unemployed women report their lack of language and working skills/experience as a main factor in why they are not in employment. The empirical findings also confirm the women's self-assessment in that both job and language training needs have a highly significant negative effect on employment probability.
- Women who have access to childcare facilities are significantly more likely to get successfully integrated into the labor market; this finding holds especially considering the background of religious confession, with Muslim women tending to take care of children on their own and Christian women (as a control group) be more likely to a) outsource childcare and b) express the need for childcare services if childcare is lacking; this opens the question which roles (Christian, public) childcare facilities play especially in Wuppertal with regards to children from other religious backgrounds, to be discussed in the economic policy section below.
- Marriage positively affects the childcare decision of women (regardless of religious denomination); married women are more likely to use childcare facilities and therefore are more likely to participate in the labor market.
- The age of the children is a significant factor when it comes to the use of and need for childcare. It is confirmed that women with young children are more likely to use or want childcare.
- Attendance and participation of integration and language classes (upon arrival) has no measurable impact on the probability of employment, even though we find evidence for the need for language training; this leaves the question of duration (or more broadly, quality, see also Table 9 in the Appendix where we control for the level of certificate) of integration classes and language classes and how much newly immigrated women can profit from such offers, a topic to be discussed below in a political framework.

- When it comes to language training, we find evidence that language in occupational training is more important than speaking the language at home, within the family or in public/everyday life.
- We find no effect of having a university degree on the probability of employment. Refugee women with a university degree do not have better chances of finding a job in Germany than those of the respective control group (i.e., refugee women without a degree). However, this may be due to the difficulty of recognizing foreign school or university degrees. A lack of attractive jobs for women with university degrees is also conceivable (the survey was conducted during the coronavirus pandemic in 2020). This applies to all models.
- We do not find a statistically significant effect of women's school education or the amount of years women have been in school (before to arriving in Germany or while in Germany). This could either mirror the current German/Wuppertal job market situation (note, however, part of the developments could be corona-driven in June/July 2020) or be an indication of insufficient data or data of questionable quality, which could indeed play a role for a heterogeneous group of family backgrounds from many different origin country school systems and various quality standards.

At the bottom line, there are many findings for female refugees' employment perspectives which could inform more refined local economic and employment policies, respectively, but which also have some potential implications for the national and EU policy layer.

6. Policy Conclusions

Referring to the significant empirical findings presented, there are several policy conclusions to be drawn, some of which refer to the supranational policy layers while others concern the national, the regional, and the local policy level – including the important role of the Jobcenters.

- At the supranational level, a reform of the EU's Dublin Regulations is adequate so that the intra-EU distribution of refugees could become more efficient.
- At the national level, it seems obvious that reforms undertaken in labor market-related institutions should take into account the important role of Jobcenters and the relevant knowledge and experience which have been accumulated by these institutions.
- At the regional level – where most of the competencies in the field of education are held in Germany (i.e., with the federal states/Länder) – one should invest more in adequate training/retraining and in teaching as well as in vocational training courses. There is also a need for local and regional governments to allocate more funding to schools and universities, respectively, namely in a period of a high number of both refugees and of immigrants more generally.
- As regards the local level – and this typically means the role of the respective Jobcenters – dealing with long-term unemployment adequately and opening up new opportunities for gainful employment and possibly also for entrepreneurship/the creation of new companies are crucial for female job and employment perspectives, respectively.

The longer female refugees live in Germany, the higher the probability of being in or finding employment. This, of course, points to adjustment costs on the side of refugees – possibly also some cultural elements which are relevant to the decision to offer labor to begin with. There could also be a desire to work which naturally might be linked to the plans of female refugees (those with children) to seek a new job once their children have found learning and training facilities considered to be adequate from the parents' perspective. Here, it could be useful to find out more about the typical family patterns in medium and large female refugee groups.

As regards the finding that Syrian female refugees are more difficult to integrate into the local job market than other refugee groups, it seems adequate to conduct new surveys among the Syrian refugee families in particular in order to find out more about the complexity of the situation – or the specific preferences of Syrian families. Female refugees from Africa also seem to face more problems in finding employment than female refugees from European countries.

Since the characteristics of resident permits, green cards etc. are quite crucial for employability, one should carefully consider optimizing the resident permit system. The fact that computer skills and the utilization of computers in everyday life also seem to be a good basis for having/finding a job suggests other policy options. Here, one may consider from the side of the local community – or of NGOs – to provide a minimum number of laptop computers which could be made available to families; a special approach for leasing computers to refugee families might be useful.

The finding that women with a university degree have no better chances of finding a job than women without a degree should be considered with a caution as the time span between coming to Germany as a refugee and getting special female access to universities in Germany so far has been rather short, so no clear conclusion should be drawn here without further research. One factor could be that the perspectives of successfully finishing university-level studies are thus far underestimated in key German cities, including Wuppertal. One might also consider that the University of Wuppertal gives tailored information to refugee families in the region.

There is no reason for pessimism about female employment perspectives of refugee families in Wuppertal. The survey has shown that the Jobcenter Wuppertal enjoys a positive reputation amongst the respondents, and one should also not underestimate that part of the problem of a low employment intensity among female refugees – not only from Syria – could become less of a problem once the younger children in the respective refugee families are more grown up. Better job perspectives could certainly emerge if more firms would be successfully created – also providing a long-term success story – by migrant refugees. It is quite important to create both a digital platform for more information and communication in the field of learning, education and training/retraining. Regular analogue meetings of refugees with company representatives and representatives from NGOs active in the field of refugee integration could also be useful, not least because of network effects and greater information diffusion. In Wuppertal, the “Integration Day” (such as that which took place for the second time in the historical city-hall in Wuppertal on October 1, 2019) organized by the Jobcenter and its partners was a very fruitful event. Better information within the refugee community, namely about the individual success stories of female refugees in the labor market, could also be useful. Moreover, in the context of policies for overcoming the Corona world recession, it would be useful to encourage the refugee community to consider more strongly the opportunity of “digital jobs” as well as migrant entrepreneurship in the Information & Communication Technology (ICT) sector as well as in the field of sustainability which can also expect to get more funding from regional, national and supranational governments in a post-Corona setting.

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Appendix

Table 9: Probit Model 4 controlling for language certificate level

VARIABLES	(1) Model 1
age	0.00472 (0.00968)
immigration_since	0.0273*** (0.0104)
permit_d	-0.432*** (0.156)
wupp_pass	0.220 (0.172)
smartphone_skill	-0.424 (0.318)
tablet_skill	-0.0603 (0.198)
computer_skill	0.490*** (0.173)
children_amount	0.0115 (0.0469)
childcare_public	0.506** (0.221)
childcare_own	0.560** (0.243)
childcare_wishing	-0.407* (0.237)
lang_everyday	0.139 (0.178)
integration_class_visit	0.114 (0.196)
language_class_visit	-0.0715 (0.190)
working_experience_before_d	0.139*** (0.0504)
need_language_training	-0.901*** (0.189)
need_job_training	-0.678*** (0.194)
certificate_level	0.112* (0.0606)
Constant	-0.933* (0.490)
Observations	603

Standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Dear Madam,

Wuppertal, 16th June 2020

the situation for women who have recently arrived in Germany is still not as good as it could be. The reasons for this have not been sufficiently studied. This applies particularly with regard to opportunities for further education, training, apprenticeships or the world of work.

In order to develop an overview of what support is lacking, but also of what has been successful in that it supported your transition to German life, we are doing something simple: **We are asking you about your personal circumstances.**

Therefore, all we ask is that you participate in our survey.

The survey is being carried out by the EIIW in co-operation with the Jobcenter and the city of Wuppertal. The EIIW is an independent research institute at the University of Wuppertal which is bound by strict data protection measures.

We have sent the questionnaire to you in two languages. If you do not speak either of these languages, please visit the following website: Studie.Wuppertal.de. Here you will find the questionnaire in the following languages:

Please return the survey in the pre-addressed and stamped envelope.

Your questionnaire will be evaluated and the anonymized results will be published in a study.

Please complete the attached EIIW questionnaire **personally**.

You can also take part in a draw for one of three vouchers each to the value of €300. Please use the attached lottery ticket and the smaller envelope enclosed. You can participate in the draw if your questionnaire and the lottery ticket have both been completed in their entirety and if the questionnaire has been returned by the **9th July 2020**. Please enclose the smaller envelope with the lottery ticket and the completed questionnaire in the larger stamped addressed envelope. The draw will be supervised and certified by an independent witness.

Thank you for your participation 😊😊.

Prof. Dr. Paul J.J. Welfens, President of the European Institute for International Economic Relations (EIIW) at the University of Wuppertal; Chair for Macroeconomics Theory and Policy and Jean Monnet Professor for European Economic Integration at the University of Wuppertal, Rainer-Gruenter-Str. 21, D-42119 Wuppertal;

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To be entered into the prize draw, we require the following information:

Name: _____

Address: _____

Only lottery tickets which have been returned on time, i.e. by the **9th July 2020** will be entered into the draw.

The lucky winners will be informed by post by the **10th August 2020** at the latest.

The lives and careers of women with a migrant background in Wuppertal

General information

1) General information (questions are for statistical purposes only):

- Country of birth: _____
- Year of birth: _____
- Religious confession:
 - If yes, which: _____
 - No

2) Since when have you lived in Germany?

Year: _____

3) Did you migrate to Germany? (alone / migrated to Germany with your family)

- Yes, in the year: _____
- No

4) Please share your residency status on the basis of your identification document:



- Residency permit in accordance with §____ (please provide the relevant § number)
- Short-term residency in accordance with §____ (please provide the relevant § number)
- Temporary residence permit (asylum process)
- Other: _____

5) Please share your preferred hobbies:

- Sport
- Cultural activities
- Cooking
- Being in nature / Gardening
- Creative pass-times e.g. playing music / art / handcrafts

6) Do you use the Wuppertal Pass?

- Yes
- No

7) Do you have any of the following devices with internet access for your personal use:

- | | | | | |
|----------------------|--------------------------|-----|--------------------------|----|
| A mobile/smart phone | <input type="checkbox"/> | Yes | <input type="checkbox"/> | No |
| A tablet | <input type="checkbox"/> | Yes | <input type="checkbox"/> | No |
| A computer | <input type="checkbox"/> | Yes | <input type="checkbox"/> | No |

Domestic and family situation

8) Family status:

- Single
- Married
- Cohabiting partner
- Separated/living apart
- Divorced
- Widowed

9) *If married or cohabiting with a partner:* Does your spouse or partner have a job?

- Unemployed
- In a program, e.g. professional qualification, language course, employment program
- In an apprenticeship or course of study
- In a Mini-job
- Part-time employment
- Full-time employment
- Self-employed

10) Are there children living in your household?

- Yes
- No (if no, please skip to Question 16)

11) Number of children: _____

12) Age of children:

- 0 – 3
- 4 – 5
- 6 – 10
- 11 – 15
- 16 – 17

13) *If you have children between 0 and 10 years of age,* please tick those that apply to you:

- I participate in a structured program; the children are in childcare during this time
 - I am undertaking an apprenticeship; the children are in childcare during this time
 - I am currently completing a school qualification; the children are in childcare during this time
 - I would like to complete a school qualification or an apprenticeship and make use of childcare facilities during this time
 - I would like to work and make use of childcare facilities
 - I would like to care for the children full-time and am not seeking employment outside the home
 - I would like to go to work, childcare will be arranged by the family (e.g. grandparents)
- I am currently employed full-time part-time, the children are in childcare

14) *If you are separated/living apart or divorced and have children:* Are you in receipt of

child support for these children?

- Yes
- No

15) Do you avail of childcare services?

- Yes
- No

a) *If yes: What type of childcare?*

- Daycare center with 25 hours of childcare per week
- Daycare center with 35 hours of childcare per week
- Daycare center with 45 hours of childcare per week
- A childminder
- All-day school
- School with childcare in the afternoon

b) *If no: Why not?*

- I did not receive a place for my child(ren)
- I do not want to avail of childcare
- Other: _____

Language Skills

16) Does your family speak German at home?

- Yes
- No

17) Do you speak German on a daily basis?

- Yes
- No

18) Have you participated in an integration course?

- Yes I am currently enrolled in an integration course
- No

19) Have you participated in a work-related German language course?

- Yes I am currently participating in a work-related German language course
- No

a) *If yes: Have you have received a certified qualification?*

- No
- A2
- B1
- B2
- C1
- C2

20) Did you use other means to learn the German language?

- Online
- German language course offered by volunteers
- In school
- Alternative: _____

School, Education, Professional Qualification

21) How many years of schooling have you had: _____

22) Do you have a school-leaving qualification (where appropriate, the German qualification comparable to a qualification in country of origin)?

- None
- Special needs school
- High school/Secondary school
- Other: _____
- I am currently in school

23) Did you achieve your school-leaving qualification in Germany?

- Yes
- No
- a) *If no:* Is your school-leaving qualification recognized in Germany?
- Yes
- No

24) Have you completed an apprenticeship or avocational qualification (e.g. trade)?

- Yes
- No
- I am currently completing such a qualification

25) Have you completed a course at a third-level institution (e.g. university)?

- Yes
- No
- I am currently a third-level student
- a) *If yes:* Is your third-level qualification recognized in Germany?
- Yes
- No

Employment

26) Did you have work experience before you came to Germany?

- No
- Less than 1 year
- 1 – 2 years
- 3 – 4 years
- Longer: _____ years

27) Please tick the following where applicable (multiple answers possible): I am currently employed

- Full-time
- Part-time

- Mini-job
- Self-employed
- Currently not employed
 - a) *If "Currently not employed": What are the reasons?*
 - I cannot find employment
 - I would like to work part-time / full-time, *if* I had access to good childcare for my children during the day
 - I am looking for an apprenticeship position
 - I would like to enroll in university
 - I would prefer to be a stay-at-home parent.
 - I am a full-time carer for other family members (e.g. elderly relation)
 - Other: _____
 - b) *If "Currently not employed": I have been unemployed for _____ years*
 - c) *If "Currently not employed": I hope to find employment within the next _____ year(s)*
 - d) *If "Currently not employed": Do you require better German language skills in order to find work?*
 - Yes
 - No
 - e) *Only if "Currently not employed": Do you require access to achieve a professional qualification?*
 - Yes
 - No

28) If you were previously in employment, what was the primary form of employment?

- I have not been in employment
- Part-time
- Full-time
- Mini-job
- Self-employed

29) How many years of work experience in Germany do you have?

- None
- Less than 1 year
- 1 – 2 years
- 2 – 3 years
- 3 - 4 years
- More than 4 years

30) Do you receive financial support from the Jobcenter?

- No, I live from: _____
- Yes, for less than 1 year 1-2 years 3-4 years 5-6 years

Here we want to know your opinion.

31) Which of the following has helped you to access the labor market? (1 a little; 6 a lot)

	1	2	3	4	5	6
Local authorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Private institution	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Club	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Religious community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Private persons	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

32) Assess the following statements on a scale of 1 (Strongly disagree) to 6 (Strongly agree):

	1	2	3	4	5	6
My German language skills are very good	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My computer skills are very good	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My internet skills are very good	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am interested in a German language course with childcare	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is important for me to have a school-leaving qualification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I need career guidance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is important for me to do an apprenticeship	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is important for me to complete a third-level qualification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is important to me to be in paid employment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
An appropriate level of pay for work is important to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The possibility to work part-time is important to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flexible working hours are important to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employment close to my residence is important to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The type of employment (tasks) is important to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Finding a job is important to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is difficult for me to find a job in Germany	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is difficult for me to find a job in the area in which I live	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Religious or cultural motivations have a big influence on my choice of career or job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Women who wear a headscarf (e.g. hijab, niqab) are discriminated against in their daily life in Germany	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is likely that, in the long-term, I will start my own company	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
For family reasons, I will not take up employment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 33) Do you think that women are discriminated against in the work environment in Germany?
- Yes
- No
- 34) Do you think that foreign women are discriminated against in the work environment in Germany?
- Yes
- No
- 35) Have you been discriminated against as a women or foreigner in a German workplace?
- Yes
- No
- 36) Do you know other women who have become unemployed during the last three months?
- Yes
- No
- 37) Do you know other women who have found new employment during the last three months?
- Yes
- No
- 38) What type of support measures have you availed of to date?
- a) Vocational
- _____
- _____
- _____
- _____
- b) Private
- _____
- _____
- _____
- _____
- 39) What type of support measures helped you the most?
- _____
- _____
- _____
- _____
- 40) What type of support was most important for you? What kind of support do you feel has been lacking?
- _____
- _____
- _____
- _____
- 41) What are the three most important aspects for you for an enjoyable workplace?
- 1) _____
- 2) _____
- 3) _____
- 42) Do you have a specific career wish?
- _____

Thank you for your participation!

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