

LIFBI WORKING PAPERS

Jörg Welker, Gisela Will, Shaza Al Rihawi and Florian Weber THE OCCUPATIONAL SITUATION IN THE COUNTRY OF ORIGIN -ILLUSTRATION USING THE EXAMPLE OF SYRIAN FAMILIES IN THE REGES STUDY



LIfBi *Working Paper* No. 104 Bamberg, July 2022

Working Papers of the Leibniz Institute for Educational Trajectories (LIfBi)

at the University of Bamberg

The LIfBi *Working Papers* series publishes articles, expert reports, and findings relating to studies and data collected by the Leibniz Institute for Educational Trajectories (LIfBi). They mainly consist of descriptions, analyses, and reports summarizing results from LIfBi projects, including the NEPS, as well as documentation of data sets other than NEPS, which are provided by the Research Data Center LIfBi.

LIfBi *Working Papers* are edited by LIfBi. The series started in 2011 under the name "NEPS *Working Papers*" and was renamed in 2017 to broaden the range of studies which may be published here.

Papers appear in this series as work in progress and may also appear elsewhere. They often present preliminary studies and are circulated to encourage discussion. Citation of such a paper should account for its provisional character.

Any opinions expressed in this series are those of the author(s) and not those of the LIfBi management or the NEPS Consortium.

The LIfBi *Working Papers* are available at www.lifbi.de/publications as well as at www.neps-data.de (see section "Publications").

Published by LIfBi

Contact: Leibniz Institute for Educational Trajectories Wilhelmsplatz 3 96047 Bamberg Germany contact@lifbi.de

The Occupational Situation in the Country of Origin – Illustration Using the Example of Syrian Families in the ReGES Study

Jörg Welker, Gisela Will, Shaza Al Rihawi and Florian Weber, Leibniz Institute for Educational Trajectories

E-mail address of lead author:

joerg.welker@lifbi.de

Bibliographic data:

Welker, J., Will, G., Al Rihawi, S., & Weber, F. (2022). *The occupational situation in the country* of origin – illustration using the example of Syrian families in the ReGES study (LIfBi Working Paper No. 104). Leibniz Institute for Educational Trajectories. https://doi.org/10.5157/LIfBi:WP104:1.0

This publication originates from the ReGES project, which was funded by the German Federal Ministry of Education and Research under grant number FLUCHT03. The present work took place partly within the framework of the "Educational Trajectories of Refugee Children and Adolescents" project, which is funded by the BMBF under grant number FLUCHT2021. The authors are solely responsible for the content of the publication.

The Occupational Situation in the Country of Origin – Illustration Using the Example of Syrian Families in the ReGES Study

Abstract

A family's social background has a major influence on the educational success and careers of its children. In the case of migrant families, the parents' labor-market situation in the place of origin constitutes an important indicator for a family's social background. ReGES, which is a longitudinal study examining the educational trajectories of children and adolescents from refugee families in Germany, seeks to provide as much detail as possible on families' occupational situations prior to emigration. To assess the quality of the information provided, this working paper provides users with relevant information on different areas: In a first step, the Syrian labor market at the time before the outbreak of war is described (section 2). Central factors such as labor force participation and unemployment are differentiated by gender and regions. The size of the labor force in various sectors in Syria is also presented. The second step describes how the professional situation of refugee parents in their country of origin was recorded and coded in the ReGES study (section 3). In this context, aspects of the situation in Syria that can only be captured to a limited extent using the usual Western coding schemes are also presented, and any adjustments made to the standard coding of occupations are discussed. Finally, the pre-migration professional situation of the Syrian refugee parents in the ReGES study is presented and related to the situation on the Syrian labor market before the war (section 4).

Keywords

labor force participation, unemployment, economic sectors, occupational status, refugees

1. Introduction

A family's social background has a major influence on the educational success and careers of its children (e.g., Erikson & Jonsson 1996; Stocké, Blossfeld, Hoenig & Sixt 2019). Also, ethnic differences in educational success are often largely due to different social starting points (e.g., Diehl, Hunkler & Kristen 2016; Olczyk 2018; Rauch, Mang, Härtig & Haag 2016). This also applies to the educational success of refugees (e.g., Will & Homuth 2020; Homuth, Liebau & Will 2021). The arguments relate to very different aspects, depending on whether primary or secondary effects (Boudon 1974) play a role: In addition to the availability of resources (financial, cultural, and social resources), the motive for status maintaining as a reason for efforts in education is mentioned again and again (e.g., Breen & Goldthorpe 1997). With regard to status maintenance, the migration research notes that the reference point for migrant families may not necessarily be the professional status in the host country, but the professional status in the country of origin (e.g., Becker & Gresch 2016). It is therefore essential to record the parents' occupational situation prior to migration in order to better pinpoint families' social status in the country of origin (and probably their own reference points).

In the ReGES study, a longitudinal study that examines the educational trajectories of children and adolescents from refugee families (for details on the study see Will, Homuth, von Maurice, & Roßbach 2021), an attempt was made to provide as much detail as possible on families' occupational situations prior to their emigration. In addition, we aim to make the information available in a user-friendly manner in the Scientific Use File. In order to better assess the quality of the information provided and to be able to relate it to the situation in the country of origin, this working paper provides users with additional background information. In a first step, the Syrian labor market at the time before the outbreak of war is described (section 2). Central factors such as labor force participation and unemployment are differentiated according to gender and region. The size of the labor force in various sectors in Syria is also presented. In order to better understand the findings, some of them are compared with findings on the situation on the German labor market. The second step describes how the professional situation in the country of origin of the refugee parents was recorded and coded in the ReGES study (section 3). In this context, aspects of the situation in Syria that can only be captured to a limited extent using the usual Western coding schemes are also presented, and any adjustments made to the standard procedure of coding occupations are discussed. Finally, the pre-migration professional situation of the Syrian refugee parents in the ReGES study is presented and related to the situation on the Syrian labor market before the war (section 4).

2. The Pre-Crisis Syrian Labor Market

2.1 Labor Force and Labor Force Participation Rates

The first aspects of the Syrian labor market that we describe are the labor force and labor force participation rates prior to the beginning of the crisis in 2011. To do so, we firstly introduce the definitions which form the basis of the data collection. The definitions in section 2 conform to those applied by the International Labour Organization (ILO), as they are generally used by the Syrian Central Bureau of Statistics, whose data we refer to. Accordingly, the labor force is the sum of persons who are employed and persons who are unemployed (see section 2.2). The labor force participation rate is defined as the number of persons in the labor force as a percentage of the working-age population (15 to 64 years). People who are

still studying or are homemakers are not counted as part of the labor force (International Labour Office 2017).

Table 1 displays the labor force and labor force participation rates in Syria by gender between 2001 and 2011. In general, the labor force increased from below 5.3 million persons in 2001, to a total of 5.8 million persons in 2011. This increase can be traced back to a steady increase in the male labor force from 4.2 million in 2001 to 4.8 million in 2011. While the number of women in the labor force was much lower than the number of men in every year, it also stagnated around one million, with a low of less than 800,000 women in the Syrian labor force in 2005.

Table 1

		Labor force		Labor force participation rate				
	Total	Male	Female	Total	Male	Female		
Year								
2001	5,276,000	4,238,000	1,038,000	53.0	83.3	21.3		
2002	5,459,000	4,289,000	1,170,000	53.3	81.6	23.4		
2003	5,093,000	4,108,000	985,000	48.1	76.2	18.9		
2004	4,948,000	4,142,000	806,000	45.6	75.0	15.1		
2005	5,106,000	4,318,000	788,000	46.2	76.7	14.5		
2006	5,293,000	4,466,000	827,000	46.7	77.4	14.9		
2007	5,400,000	4,553,000	847,000	46.5	77.1	14.9		
2008	5,443,000	4,555,000	888,000	44.6	73.6	14.8		
2009	5,442,000	4,638,000	804,000	43.6	73.2	13.1		
2010	5,530,000	4,696,000	834,000	42.7	72.2	12.9		
2011	5,815,000	4,838,000	977,000	43.4	71.2	14.8		

Syrian Labor Force and Labor Force Participation Rate by Gender, 2001-2011

Sources: Own calculations based on data from the Syrian Central Bureau of Statistics (2012a, 2012b, 2012c).

To get a better understanding of these numbers, table 1 also displays labor force participation rates by gender and their development before the beginning of the Syrian civil war. Two findings stand out here. First, there are tremendous differences between the labor force participation rates of men and women. While female participation rates range at a low level – between a maximum of 23.4 percent in 2002 and a minimum of 12.9 percent in 2010 – male participation rates were consistently higher — by approximately 60 percentage points. In 2001, 83.3 percent of working age men were part of the labor force. Although this share declined over the period under study, it was still 71.2 percent in 2011. Comparing German

data to the Syrian situation, we find a gender gap there as well, but it is considerably smaller. In 2011, the German labor force participation rate was 66.5 percent for men, and 54.0 percent for women (ILOSTAT 2020).

As a second important finding, table 1 displays a declining trend in labor force participation rates among both genders between 2001 and 2011. During this period, the total labor force participation rate dropped by roughly ten percentage points, from 53.0 percent to 43.4 percent. Declines in male and female labor force participation rates cover comparable ranges of percentage points.

Besides gender differences, the pre-crisis Syrian labor force was also characterized by regional differences. As can be seen from table 2, some Syrian regions such as Tartus, Hama, and Latakia lie at the upper end of the distribution with labor force participation rates of almost 50 percent, whereas in some other regions such as Daraa, Aleppo, Idlib, and Al-Hasakah, less than 40 percent of the working-age population were part of the labor force. This seems to have a strong connection to female labor force participation rates, as the latter regions are also the regions where female labor force participated in the labor force. In contrast, the three regions with the highest labor force participation rates also have much higher female labor force participation rates have have the participation rates reaching up to mor

Table 2

	Labor force participation rate						
	Total	Male	Female				
Governorate							
Tartus	49.9	69.6	30.1				
Hama	49.7	76.5	23.1				
Latakia	49.7	71.7	27.7				
Rif Dimashq	44.5	76.2	10.9				
Homs	44.4	73.5	14.9				
Damascus	44.0	73.4	13.3				
Ar-Raqqah	41.6	73.1	7.6				
As-Suwayda	41.5	63.5	21.0				
Quneitra	40.9	69.1	13.0				
Deir ez-Zor	40.6	65.1	16.8				
Daraa	38.9	68.5	10.6				
Aleppo	38.7	72.5	5.3				
Idlib	38.7	68.7	8.6				
Al-Hasakah	38.6	69.5	7.7				
Total	42.7	72.2	12.9				

Syrian Labor Force Participation Rate by Governorate and Gender, 2010

Source: Own calculations based on data from the Syrian Central Bureau of Statistics (2010).

While reliable labor market data for Syria are mostly available only until 2011, labor market developments during the civil war can only be assumed. It is likely that the labor force diminished because of emigration and civil war fatalities (UNDP Syria & Syrian Economic Sciences Society 2018). However, we are not aware of any concrete estimates regarding the labor force or labor force participation rates after 2011.

2.2 Unemployment and Unemployment Rates

Next, we focus on unemployment numbers and rates. According to the Syrian Central Bureau of Statistics (2011a), all persons of working age not in employment, carrying out activities to seek employment in the previous month, and available to take up employment (in the reference period or within a short subsequent period not exceeding two weeks in total) are defined as unemployed. The unemployment rate is the proportion of unemployed persons aged 15-64 among the total workforce (employed + unemployed) in the same given year.

Table 3 shows the numbers of unemployed persons and the unemployment rates between 2001 and 2011. Until 2004, the number of unemployed persons hung around approximately 600,000. This was reflected in unemployment rates above 10 percent. In 2005, we can see a strong decline in both absolute unemployment numbers – decreasing by almost 200,000

persons in one year – and the unemployment rate – dropping by four percentage points to 8.1 percent. This strong decline might to a large extent be explained by the opening of private banks and firms (Al Bawaba 2004), where many people found work. Unemployment remained more or less constant at this level until 2010, except for 2008, where there was a temporary spike in unemployment. This spike can be traced back to the effects of a drought which hit the Syrian agricultural sector (Butter 2015).

Table 3

	Une	mployed per	sons	Unemployment rate			
	Total	Male Female		Total	Male	Female	
Year							
2001	546,000	312,000	234,000	10.3	7.4	22.5	
2002	638,000	356,000	282,000	11.7	8.3	24.1	
2003	551,000	335,000	216,000	10.8	8.2	21.9	
2004	608,000	432,000	176,000	12.3	10.4	21.8	
2005	413,000	225,000	158,000	8.1	5.9	20.1	
2006	433,000	236,000	197,000	8.2	5.3	23.8	
2007	454,000	237,000	217,000	8.4	5.2	25.6	
2008	595,000	380,000	215,000	10.9	8.3	24.2	
2009	443,000	264,000	179,000	8.1	5.7	22.3	
2010	476,000	293,000	183,000	8.6	6.2	21.9	
2011	866,000	504,000	362,000	14.9	10.4	37.1	

Unemployment and Unemployment Rate by Gender, 2001-2011

Source: Syrian Central Bureau of Statistics (2012d, 2012e).

In 2011, there was a massive increase in both unemployment numbers and rates: the number of unemployed persons almost doubled to 866,000, and the unemployment rate increased by more than six percentage points to 14.9 percent. We assume that these effects are linked to the beginning of the Syrian crisis.

Furthermore, table 3 shows a substantial gender gap, with unemployment rates clearly higher among females than males. Until 2010, male unemployment rates mostly occupied single-digit figures, while female unemployment rates were consistently above 20 percent. This might be explained by traditional attitudes in the population that discriminate against women's employment – particularly in sectors that are traditionally occupied by men. Furthermore, this effect should partly be mediated by education: Syrian women's educational attainment was

on average lower than men's (Welker et al. 2021), which likely made it more difficult for many of them to find a job.

Table 4

Unemployment Numbers and Rates by Governorates in 2010

	Unemployment rate
Governorate	
Aleppo	4.9
Hama	5.5
Rif Dimashq	6.1
Ar-Raqqah	6.8
Homs	6.9
Idlib	7.5
Daraa	9.0
Damascus	10.0
As-Suwayda	12.9
Deir ez-Zor	13.2
Tartus	14.3
Al-Hasakah	15.1
Latakia	15.6
Quneitra	19.2
Total	8.6

Source: Syrian Central Bureau of Statistics (2011b).

Table 4 displays unemployment numbers and rates for all Syrian regions in 2010. We can see that the lowest rate is in Aleppo (4.9 percent). This is probably because Aleppo was the industrial capital of Syria before the civil war. Low unemployment rates are also present in other governorates, such as Rif Dimashq, Homs, Hama, and Ar-Raqqah. For these regions, various factors such as tourism or proximity to neighboring countries may play a role in explaining their lower unemployment rates. On the other end of the table, Quneitra displays the highest unemployment rate (19.2 percent). This may be explained by the specific situation of this governorate: due to the Golan Heights conflict with Israel, Quneitra has been largely destroyed and abandoned.

Again, reliable statistics for the crisis period after 2011 are hard to find. It can be assumed that unemployment rates increased due to various impacts of the civil war, for example resulting economic embargoes, the destruction of infrastructure, and internal displacement. According

to estimates, the unemployment rate in Syria reached 26.2 percent in 2015 (UNDP Syria & Syrian Economic Sciences Society 2018).

2.3 Distribution of Employment by Economic Sector

Finally, we provide an overview of the economic sectors in which Syrians were employed (see table 5).

Table 5

Distribution of Employment by Economic Sector, Gender, and Year, 2001-2011

	Gender	Agriculture	Industry	Building & constructions	Hotels & restaurants	Transportation	Money & real estate	Services	Total
Year									
2001	Males	25.2	15.2	14.0	17.1	6.1	1.8	20.6	100.0
	Females	55.4	6.4	1.0	2.5	1.2	1.1	32.4	100.0
	Total	30.4	13.7	11.8	14.5	5.3	1.7	22.6	100.0
2002	Males	24.1	15.5	15.9	17.9	6.6	1.3	18.8	100.0
	Females	58.1	5.8	1.0	2.5	0.7	1.0	31.0	100.0
	Total	30.3	13.7	13.2	15.0	5.5	1.3	21.0	100.0
2003	Males	22.0	15.1	13.3	17.5	7.0	2.1	23.0	100.0
	Females	46.2	6.6	1.0	3.5	0.9	1.5	40.3	100.0
	Total	26.1	13.6	11.2	15.1	6.0	2.0	25.9	100.0
2004	Males	17.0	14.4	22.0	13.7	6.9	1.9	24.0	100.0
	Females	27.9	7.7	4.4	3.2	1.0	2.0	53.8	100.0
	Total	18.6	13.4	19.5	12.2	6.1	1.9	28.3	100.0
2005	Males	18.5	14.7	16.1	17.6	8.1	2.1	23.0	100.0
	Females	31.0	6.8	0.9	4.3	0.8	2.1	54.1	100.0
	Total	20.1	13.6	14.1	15.8	7.1	2.1	27.1	100.0
2006	Males	17.2	15.5	15.0	17.8	9.2	2.3	23.0	100.0
	Females	29.9	8.1	0.6	4.7	0.9	1.6	54.3	100.0
	Total	18.9	14.5	13.0	16.1	8.1	2.2	27.2	100.0

2007	Males	18.1	15.3	16.9	17.5	7.9	2.7	21.6	100.0
	Females	26.3	6.8	1.0	4.7	1.5	2.4	57.4	100.0
	Total	19.1	14.2	14.9	15.8	7.1	2.7	26.2	100.0
2008	Males	14.5	17.5	18.3	17.9	8.4	2.1	21.3	100.0
	Females	19.5	8.5	1.1	6.1	2.3	3.1	59.3	100.0
	Total	15.2	16.4	16.2	16.4	7.6	2.2	26.1	100.0
2009	Males	14.5	17.5	18.3	17.9	8.4	2.1	21.3	100.0
	Females	19.5	8.5	1.1	6.1	2.3	3.1	59.3	100.0
	Total	15.2	16.4	16.2	16.4	7.6	2.2	26.1	100.0
2010	Males	13.2	17.6	18.5	19.5	8.7	2.6	19.9	100.0
	Females	22.2	8.7	0.5	6.4	1.7	2.9	57.7	100.0
	Total	14.3	16.4	16.2	17.9	7.8	2.6	24.8	100.0
2011	Males	13.4	17.1	17.5	19.8	7.2	2.9	22.3	100.0
	Females	12.3	8.8	0.7	4.9	2.2	3.1	68.1	100.0
	Total	13.2	16.0	15.4	17.9	6.5	2.9	28.0	100.0

Source: Syrian Central Bureau of Statistics (2012f).

Most noticeably, the share of workers in agriculture was quite remarkable in all years but also decreased from 30.4 percent in 2001 to 13.2 percent in 2010, with a particularly strong decrease among women. This strong downward development may not only be explained by the typical decline of agriculture in developing societies. Among other factors, the climate was responsible for an important share of this decline: Syria was hit by a series of droughts in the observed decade, which led to a decrease in employment in agriculture (Butter 2015). By comparison, the share of persons working in agriculture over the period under study was however still much higher in Syria than in Germany, where the share has been below 2 percent since 2000 (Geißler 2014).

On the other hand, the share of Syrians working in service-related jobs increased markedly over time. This development was likely enabled by economic reforms which allowed private banks to be established and encouraged the private sector to invest more. Moreover, shifting from a state-led economy to social market economy led to liberalized trade and gave private enterprises a bigger role in the economy (Chahoud 2011). Again, this development had a particularly significant impact on women, as the share of Syrian women working in services rose from 32.4 percent to 68.1 percent between 2001 and 2011.

Like in the previous sections, we assume that the gender-related differences may, at least to some extent, be explained by culture. Because of greater social acceptability, many employed women may have preferred to work in what have traditionally been considered female domains, in particular in the services sector.

To provide further insight, table 6 displays the fields of economic activity in which Syrians worked in 2011. Among men, the most important field was wholesale and retail trade (18.4 percent), closely followed by building and construction (17.5 percent), and then

manufacturing (15.2 percent). Among women, we see an important concentration in the field of education: almost 40 percent of economically active women worked in education. Other areas in which women were frequently employed are "public administration and defense" (13.5 percent) and "health and social work" (11.7 percent), but still also the primary sector (12.3 percent).

Table 6

Distribution of Employment by Economic Activity and Gender, 2011

	Total	Male	Female
Field of economic activity			
Agriculture, hunting and forestry	13.2	13.3	12.3
Fishing	0.1	0.1	0.0
Mining and quarrying	0.9	0.9	0.6
Manufacturing	14.2	15.2	7.3
Electricity, gas and water	1.0	1.0	0.8
Building and construction	15.4	17.5	0.7
Wholesale and retail trade	16.6	18.4	4.5
Hotels and restaurants	1.3	1.4	0.4
Transport, storage and communications	6.5	7.2	2.2
Financial intermediation	0.5	0.4	1.3
Real estate intermediation	2.4	2.5	1.8
Public administration and defense	13.0	12.9	13.5
Education	9.1	4.8	39.6
Health and social work	2.9	1.6	11.7
Social services	2.7	2.7	2.9
Home Services	0.2	0.2	0.3
Embassies	0.0	0.0	0.1
International organizations	0.1	0.1	0.0
Total	100.0	100.0	100.0

Source: Syrian Central Bureau of Statistics (2012g).

3. Measurement of Origin-Specific Labor-Market Aspects in the ReGES Study

The remaining sections aim to link the insights from the previous sections to data from the ReGES study (for further information on the study design, see Will et al. 2021). In a first step, we describe how information about the ReGES respondents' origin-specific labor-market situation and occupations was collected. Although the ReGES study's focus is on preschool-aged children (Refugee Cohort 1, RC1) and school-aged adolescents (Refugee Cohort 2, RC2), the occupational situation of parents was recorded as a relevant family characteristic. This information was predominantly provided in the first wave, either by the interviewed parent, or in RC2 exceptional cases, by the adolescent respondent.

Initially, all participating parents were asked whether they had ever been employed in their country of origin. Those who had never been employed were subsequently asked about their main activity (e.g., unemployed, in education, etc.). Those who were employed were then asked about their highest occupational position. The respective question for the interviewed parent was: "If you have performed different jobs, please think of the highest position you have held. What was your job title?" This question was made more specific by the following instruction: "Please specify your exact job title. For example, instead of 'business clerk' write 'forwarding merchant'. Instead of 'worker' write 'machinist'." The aim was to ensure that respondents described their occupation in sufficient enough detail so that coding could be as differentiated as possible. The respondents could write their job title into an open response field, or record a spoken response.¹ To conclude the item block, some items collected information about whether a respondent had held a managerial position, or how many subordinate employees she or he had had.

If the participating parent had a partner and if the partner agreed to their own information being collected in the ReGES survey, the participating parent received an identical item bloc about the partner's origin-specific labor-market situation and occupation.

If the parents did not participate in the survey, the adolescent participants received short item blocs about their mothers' and fathers' origin-specific occupations. These included open-response items about their main occupational position. Regarding the father's occupation, the question was "What was your father's primary occupation in your country of origin? For example: school teacher, chef or sales manager." Following this item, a second open-response item enabled adolescents to describe their father's occupation in more detail: "What exactly did your father do in his primary occupation? For example: teach high-school students, cook meals in a restaurant, manage a sales team. Please describe his work in one sentence." The information about the mother's occupation was collected in the same way. In addition, some items collected information about whether a parent held a managerial position or how many employees she or he had. Different to the parent questionnaire, the adolescent questionnaire asked neither whether the parents had ever been employed, nor what the main activity of those who were never employed had been. Instead, this information was frequently given in the open-response fields.

After the data collection, if the questionnaire was conducted in one of the seven offered foreign languages, the open-response information on the parents' occupations in their country of origin was translated into German (for details on the offered languages see Gentile, Heinritz & Will 2019) and anonymized afterwards if necessary. The data prepared by the

¹ Audio files were used in the ReGES study so that individuals who did not have adequate reading skills could still participate in the computer-assisted self-interviews (CASI). Accordingly, for the few questions that required open-ended responses, the answers could be spoken in and recorded (for more details on interviewing illiterate respondents, see Heinritz, Will & Gentile, 2022).

survey institute were then coded in order to enable and facilitate statistical analyses. The coding was based on that of the National Educational Panel Study (NEPS) (see Munz, Wenzig & Bela 2016), and was carried out with the "Coding Instrument" software of the Leibniz Institute for Educational Trajectories (LIfBi). Because the ReGES respondents are a specific target group, there were some special features. In the following, both the standard procedure and the special supplements are presented in more detail.

The professions were coded in a very differentiated documentation code, the so called Dokumentationskennziffer (DKZ). The DKZ is a database introduced by the Federal Employment Agency in Germany, in which every occupation is stored with an 8-digit identification number. In addition to current designations, the database also contains occupational designations that are no longer in use (Paulus & Matthes 2013). Based on the DKZ, a coding into the "Classification of occupations" (Klassifikation der Berufe, KldB; Bundesagentur für Arbeit 2021) can be made, as the first five digits of the DKZ corresponds to the KldB. The KldB is a classification that was developed to as best possible reflect the current occupational landscape in Germany. It differentiates horizontally (e.g., between different industries) and vertically (e.g., management tasks, skill profiles).

From the KldB, in turn, coding in international occupational classifications is possible. Thus, for example a corresponding ISCO-08 (International Standard Classification of Occupations; International Labour Office 2012) code can be generated, which also includes horizontal and vertical dimensions. This international occupational classification can be used to generate values on international occupational prestige scales, such as ISEI (International Socio-Economic Index of Occupational Status, see Ganzeboom, Graaf & Treiman 1992) or SIOPS (Standard International Occupational Prestige Scale, see Hoffmeyer-Zlotnik & Geis 2003; Ganzeboom & Treiman 1996).

The original coding of the open professional information in the DKZ was carried out without the aid of covariates (such as number of subordinate employees or education level of the respondent). A number of the available open data could not be encoded because the open information was not accurate enough, or otherwise did not match any code available in the DKZ. The reasons why this uncodable information emerged may also be due, among other things, to the specificity of our target group and the research design. Such specific reasons may include:

- 1. Lack of fit between the DKZ, which is specifically tailored to Germany, and the labor markets of the countries of origin. This can have two effects. On the one hand, it may be that the professions in the country of origin are not differentiated in as much detail. On the other hand, it may also be that there are occupations that are not (or no longer) common in Germany.
- 2. Loss of information during translation.
- 3. Language difficulties if the interview could not be conducted in the native language of the respondent.

While the third aspect cannot be changed afterwards, there are chances to work again on the responses to recover more precise data in the first two cases. With regard to the loss of information in the course of translations, the open data in Arabic, which could not be easily encoded, were re-translated by internal staff trained with regard to the specifics of the coding of occupations. In this way, information important for occupational coding, which an

untrained translator might have neglected in the course of a free translation, could be recovered. Furthermore, to address the fact that the DKZ was developed explicitly for Germany and is partly unable to reflect the reality of the labor markets of the countries of origin, the previously unencoded open occupational information was encoded directly into ISCO-08. Information from other questions, for example, on the number of subordinate employees or whether a respondent held a managerial function, was included to enable the most detailed coding possible.

Nevertheless, the coding was associated with difficulties. Thus, in some cases, instead of the actual four-digit ISCO-08 value, only one- to three-digit ISCO-08 values were used. This is associated with a loss of information, for instance, in a case where it can be stated that someone is a scientist, but not in which specific subject. Particularly frequent was information such as "trader", "free trade", etc., which refers to activities in markets and bazaars common in most of the countries of origin of the ReGES sample. This information was coded in the ISCO two-digit 52 "sales workers". Relatively often, a place of work was also given instead of a job title; for example, the indication "restaurant" was coded in the ISCO two-digit 51 "personal services workers", which includes professions such as cooks (512) or waiters (5131). Information such as "Beamter" (i.e., public official or civil servant) was coded as 1112 "senior government officials" if a management position and at least one subordinate employee were indicated in the covariates; otherwise as 335 "government regulatory associate professionals".

The experience with the coding of the origin-specific occupations of the respondents of the ReGES study shows that the coding schemes developed for Germany are not optimally suited for all cases. The same may be true for the scales on occupational prestige and socio-economic status. While it can be assumed that these are relatively accurate for Western countries (e.g., Hoffmeyer-Zlotnik & Geis 2003), they are rarely used for non-Western countries such as Syria (for an exception, see Gebel 2012). This should be kept in mind when interpreting the results.

4. Labor-Market Situation and Occupations of Syrian ReGES Parents Prior to Migration

The following subsections consist of descriptive analyses of the ReGES participants' originspecific labor-market situations and occupations. Because of the differences in how the data were collected from the adolescents, we restrict our findings to information provided only by parents. We also ran cohort-specific analyses to compare the labor-market situation of RC1 and RC2 parents, but found no systematic differences. We therefore present no cohortspecific findings.

4.1 Labor-Market Situation

First, we describe the ReGES parents' labor-market situations in Syria; that is, whether they were employed and – if they were not employed – what their main activity was. There are strong gender-related differences with regard to the labor-market situations of Syrian parents in their place of origin (see figure 1). Almost all men (94.8 percent) were employed at some point, while only small shares of them were either unemployed, in education, were homemakers or had some other kind of activity. Among women, we see a very different picture, with only 35.0 percent of the Syrian ReGES mothers having been employed at some point in their place of origin. More than half of them were homemakers. Less than 5 percent for each category were unemployed, in education, or active in some other area.



Figure 1. Main activity of Syrian ReGES respondents in the place of origin by gender (in %). Source: Own calculations based on ReGES Wave 1 parent interviews.

Although it is impossible to directly compare these findings to the aggregate data presented in section 2, we see some general patterns emerging: The very strong gender differences that existed on the Syrian labor market before 2011 are also reflected in the composition of Syrian parents in Germany. In general, the employment rates of both men and women are much higher in the ReGES sample compared to the Syrian aggregate data. Because the differences are so strong, we assume that there are multiple reasons for this. For instance, there are obvious differences in measurement: while the data of the Syrian Central Bureau of Statistics are annual, the ReGES respondents were asked if they were "ever" employed. Moreover, the Syrian ReGES parents are educationally selective, that is, they are on average better educated than the Syrian origin population (Welker 2022). Positive educational selectivity may also have led to more positive labor market outcomes prior to migration for this group. Besides these two rather obvious reasons, we assume that other factors, such as a possible regional selectivity of our sample, or selective participation of better educated refugees in our study on education likely contribute to the marked differences. However, it is beyond the scope of this paper to discuss these factors in detail.



Figure 2. Employment of Syrian ReGES respondents by origin region and gender (in %). Source: Own calculations based on ReGES Wave 1 parent interviews.

Regarding regional differences, comparisons are only possible to a limited extent because of low case numbers for some origin regions. For this reason, we only present findings on employment and leave out information about the main activity of those who were never employed in Syria. As expected, employment rates were substantially higher among fathers than among mothers (see Figure 2). For all origin regions, the share of employed fathers is above 93 percent, except for Tartus (87.5 percent). However, the ReGES data only comprise eight fathers from this province, so the informative value is limited here. In the case of the mothers, regional variation in employment is stronger, ranging between 26.5 percent for Daraa and 47.7 percent for Latakia. Again, Tartus is an outlier, with 87.5 percent being employed. However, this is to some extent in line with the data provided by the Syrian Central Bureau of Statistics, where Tartus is the governorate with by far the highest labor force participation rate among women (see table 2).

4.2 Occupations

Next, we turn to the occupations of those Syrian parents that were employed in their place of origin. Again, as expected, we find strong differences between men and women. Among men, the biggest group consists of sales workers, with 11.3 percent working in this occupation (see figure 3). This is in line with table 6, which shows that most males in Syria worked in sales. As may also be seen from this figure, many male Syrians were working in occupations that can be considered traditionally male jobs, such as truck drivers or mechanics.



Figure 3. Top 10 occupations (3-digit ISCO) of Syrian fathers in the place of origin in % (n=1,757). Source: Own calculations based on ReGES Wave 1 parent interviews.

Correspondingly, many Syrian mothers worked in traditionally female occupations, such as beauticians or secretaries (see figure 4). However, the biggest group among females consists of secondary education teachers: almost one third of the Syrian mothers that were employed worked in this occupation in Syria. Again, this finding is in line with the high share of Syrian women who worked in education (cf. table 6).



Figure 4. Top 10 occupations (3-digit ISCO) of Syrian mothers in the place of origin in % (n=561). Source: Own calculations based on ReGES Wave 1 parent interviews.

What both genders have in common is that the occupations vary greatly in terms of prestige. Among both men and women, the minimum occupational prestige in the ReGES sample is represented by agricultural, forestry and fishery laborers (ISEI = 11.74), whereas the highest occupational prestige is enjoyed by medical doctors (ISEI = 88.70). Nevertheless, it appears that the mothers had more prestigious occupations in Syria than the fathers. While the median ISEI among mothers is 68.88 (ISCO: Other Teaching Professionals), it is only 30.34 (ISCO: Car, Van and Motorcycle Drivers) among fathers. On average, the mothers' ISEI is 60.9 (sd = 22.8), compared to an average ISEI of 43.0 (sd = 22.5) among fathers. This strong and somewhat counterintuitive difference might be related to the fact that, on the one hand, many mothers are not taken into account in the ISEI calculation because they were mainly homemakers and, on the other hand, those women who worked in the country of origin may have been more highly educated. This selection of better educated women into the labor market could then lead to the comparatively high ISEI values of the women (see also Gebel 2012).

5. Conclusion

In light of the substantial role that pre-migration characteristics play for the societal integration of recent refugees in Germany, this paper aims to give an overview of the Syrian pre-crisis labor market and how respondents in the ReGES sample compare to the population in Syria in terms of labor-market participation and occupations. We put specific emphasis on how these origin-specific aspects were measured and coded in the framework of the ReGES study.

Several conclusions may be drawn from this paper. Firstly and unsurprisingly, the Syrian precrisis labor market differed fundamentally and across various characteristics from the German labor market. Most importantly, female labor-market participation was considerably less common in Syria, and the distribution of the labor force reflected differing importance of various economic sectors between the two countries, especially concerning agriculture, which is much larger in Syria. This could be challenging for the structural integration of certain groups among Syrian refugees, for example if they experience a limited transferability of their competencies on the German labor market.

Secondly, the experience of coding the occupational data in the ReGES study shows that special care must be taken when applying a classification tailored for the German labor market to other national contexts. Standard procedures cannot be adopted unchanged. However, additional coding steps can increase the informative value of the data. If open-response data have to be translated, it is strongly recommended that the translators be familiarized with basic knowledge of occupational coding in order not to lose valuable information in the process of translation. In the future, it would be desirable to examine more closely the extent to which occupational classifications, and in particular, prestige scales, which were developed mainly in, and tailored to Western industrialized nations, can be transferred to Arab countries. Thirdly, even if the data collected in the ReGES study are not directly comparable to Syrian labor-market statistics, some of our findings suggest that Syrian refugees in Germany might be a select group that compares favorably to the Syrian origin population in terms of certain labor-market characteristics. For instance, mothers from the ReGES sample might have been more likely to be employed than the overall female population in Syria. Those mothers that were employed might also have had more prestigious jobs. This is in line with previous research that found that Syrian refugees are on average positively selected on education (Welker 2022). If the majority of Syrian refugees did comparatively well on the Syrian labor market, this may have a positive impact on their labor market integration in Germany. Furthermore, positive correlations with their children's educational success may be expected (Feliciano 2018; Ichou 2014; van de Werfhorst & Heath 2019).

Future research should closely monitor the integration of recent refugees into the German labor market and investigate to what extent the professional experience in the country of origin, on the one hand, and a possible selective migration on the other hand, are related to the employment trajectories of refugees. First findings suggest that some progress was already made in the first years after their arrival (e.g., Brücker, Kosyakova & Schuß 2020). Nevertheless, it may still be too early for a comprehensive assessment from a medium- and long-term perspective. A successful integration into the labor market is vital not only for adult refugees themselves, but may also have important consequences for their children, such as for their educational success (e.g., Boll & Hoffmann 2015; Dahl & Lochner 2012).

References

- Al Bawaba. (2004, January 8). Private banks open in Syria ending half-century of state monopoly. Retrieved from https://www.albawaba.com/business/private-banksopen-syria-ending-half-century-state-monopoly
- Becker, B., & Gresch, C. (2016). Bildungsaspirationen in Familien mit Migrationshintergrund.
 In C. Diehl, C. Hunkler, & C. Kristen (Eds.), *Ethnische Ungleichheiten im Bildungsverlauf* (pp. 73–115). Wiesbaden: Springer Fachmedien. doi: 10.1007/978-3-658-04322-3_3
- Boll, C., & Hoffmann, M. (2015). It's not all about parents' education, it also matters what they do. Parents' employment and children's school success in Germany. (SOEPpapers on Multidisciplinary Panel Data Research No. 735). Berlin: Deutsches Institut für Wirtschaftsforschung (DIW).
- Boudon, R. (1974). *Education, opportunity, and social inequality: Changing prospects in Western society*. New York: Wiley.
- Breen, R., & Goldthorpe, J. H. (1997). Explaining educational differentials: Towards a formal rational action theory. *Rationality and Society*, *9*(3), 275–305.
- Brücker, H., Kosyakova, Y., & Schuß, E. (2020). Integration in Arbeitsmarkt und
 Bildungssystem macht weitere Fortschritte (IAB-Kurzbericht 04/2020). Nürnberg:
 Institut für Arbeitsmarkt und Berufsforschung.
- Bundesagentur für Arbeit. (2021). Klassifikation der Berufe 2010 überarbeitete Fassung 2020: Band 1: Systematischer und alphabetischer Teil mit Erläuterungen. Nürnberg.
- Butter, D. (2015). Syria's Economy. Picking up the Pieces. Retrieved from https://www.chathamhouse.org/sites/default/files/field/field_document/20150623S yriaEconomyButter.pdf
- Central Bureau of Statistics. (2010). Population distribution (15 years and over) by governorates, relation to labor force and gender (urban-rural), 2010. Retrieved from http://cbssyr.sy/work/2010/ALL-2010/TAB3.htm
- Central Bureau of Statistics. (2011a). Equation of the calculation of the Labor Force. Retrieved from http://cbssyr.sy/indicator/guide_indicator.pdf

- Central Bureau of Statistics. (2011b). Rate unemployment by governorates. Retrieved from http://cbssyr.sy/work/2011/compare/TAB4.htm
- Central Bureau of Statistics. (2012a). Labor force during (2001-2011). Retrieved from http://cbssyr.sy/work/2012/TAB6.htm
- Central Bureau of Statistics. (2012b). Population (15 64 years) during (2001-2011). Retrieved from http://cbssyr.sy/work/2012/TAB3.htm
- Central Bureau of Statistics. (2012c). Population (65 years and more) during (2001-2011). Retrieved from http://cbssyr.sy/work/2012/TAB4.htm
- Central Bureau of Statistics. (2012d). The number of unemployment during (2001 2011). Retrieved from http://cbssyr.sy/work/2012/TAB15.htm
- Central Bureau of Statistics. (2012e). Unemployment rate during (2001 2011) (%). Retrieved from http://cbssyr.sy/work/2012/TAB14.htm
- Central Bureau of Statistics. (2012f). Workers distribution by economic activity for years (2001 2011). Retrieved from http://cbssyr.sy/work/2012/TAB19.htm
- Central Bureau of Statistics. (2012g). Workers distribution (15 years and over) by economic activity. Retrieved from http://cbssyr.sy/work/2011/TAB6.htm
- Chahoud, T. (2011). Syria's Industrial Policy. Retrieved from https://www.diegdi.de/uploads/media/Syrienstudie.engl.arab.pdf
- Dahl, G. B., & Lochner, L. (2012). The Impact of family income on child achievement: evidence from the Earned Income Tax Credit. *American Economic Review*, *102*(5), 1927–1956.
- Diehl, C., Hunkler, C., & Kristen, C. (2016). Ethnische Ungleichheiten im Bildungsverlauf. Eine Einführung. In C. Diehl, C. Hunkler, & C. Kristen (Eds.), *Ethnische Ungleichheiten im Bildungsverlauf* (pp. 3–31). Wiesbaden: Springer Fachmedien.
- Erikson, R., & Jonsson, J. O. (1996). Explaining class inequality in education: The Swedish test case. In R. Erikson & J. O. Jonsson (Eds.), *Can education be equalized? The Swedish case in comparative perspective* (pp. 1–63). Boulder: Westview Press.

- Feliciano, C. (2018). How family, immigrant group, and school contexts shape ethnic educational disparities. *Ethnic and Racial Studies*, 41(2), 189–209. doi: 10.1080/01419870.2017.1355974
- Ganzeboom, H. B. G., Graaf, P. M. de, & Treiman, D. J. (1992). A Standard International Socio-Economic Index of Occupational Status. *Social Science Research*, *21*(1), 1–56.
- Ganzeboom, H. B. G., & Treiman, D. J. (1996). Internationally Comparable Measures of
 Occupational Status for the 1988 International Standard Classification of
 Occupations. Social Science Research, 25(3), 201–239doi: 10.1006/ssre.1996.0010
- Gebel, M. (2012). *Transition from education to work in Syria: Results of the Youth Transition Survey 2009*. Turin: European Training Foundation.
- Geißler, R. (2014). *Die Sozialstruktur Deutschlands*. Wiesbaden: Springer Fachmedien. doi: 10.1007/978-3-531-19151-5
- Gentile, R., Heinritz, F., & Will, G. (2019). Übersetzung von Instrumenten für die Befragung von Neuzugewanderten und Implementation einer audiobasierten
 Interviewdurchführung. (LIfBi Working Paper No. 86). Bamberg: Leibniz Institute for Educational Trajectories.
- Heinritz, F., Will, G., & Gentile, R. (2022). Surveying illiterate individuals: Are audio files in computer-assisted self-interviews a useful supportive tool? In S. Pötzschke & S. Rinken (Eds.), *IMISCOE Research Series. Migration research in a digitized world: Using Innovative Technology to Tackle Methodological Challenges* (pp. 101–126). Heidelberg: Springer Nature.
- Hoffmeyer-Zlotnik, J. H. P., & Geis, A. J. (2003). Berufsklassifikation und Messung des beruflichen Status/Prestige. *ZUMA Nachrichten*, *27*(52), 125–138.
- Homuth, C., Liebau, E., & Will, G. (2021). The role of socioeconomic, cultural, and structural factors in daycare attendance among refugee children. *Journal for Educational Research Online*, *13*(1), 16–77. doi: 10.31244/jero.2021.01.02
- Ichou, M. (2014). Who they were there: Immigrants' educational selectivity and their children's educational attainment. *European Sociological Review*, *30*(6), 750–765.

- ILOSTAT. (2020). Labour force participation rate by sex and age ILO modelled estimates, Nov. 2020 (%) – Annual. Retrieved from https://www.ilo.org/shinyapps/bulkexplorer15/?lang=en&segment=indicator&id=EA P 2WAP SEX AGE RT A
- International Labour Office. (2012). International Standard Classification of Occupations: Structure, group definitions and correspondence tables. Geneva.
- International Labour Office. (2017). ILO Labour Force Estimates and Projections: 1990-2030. Retrieved from https://www.ilo.org/ilostat-files/Documents/LFEP.pdf
- Munz, M., Wenzig, K., & Bela, D. (2016). String coding in a generic framework. In H.-P.
 Blossfeld, J. von Maurice, M. Bayer, & J. Skopek (Eds.), *Methodological issues of longitudinal surveys: The example of the national educational panel study* (pp. 709–726). Wiesbaden: Springer Fachmedien.
- Olczyk, M. (2018). *Ethnische Einbettung und schulischer Erfolg*. Wiesbaden: Springer Fachmedien. doi: 10.1007/978-3-658-21132-5
- Paulus, W., & Matthes, B. (2013). Klassifikation der Berufe 2010 Struktur, Codierung und Umsteigeschlüssel (FDZ-Methodenreport 08/2013). Nürnberg:
 Forschungsdatenzentrum der Bundesagentur für Arbeit im Institut für Arbeitsmarktund Berufsforschung.
- Rauch, D., Mang, J., Härtig, H., & Haag, N. (2016). Naturwissenschaftliche Kompetenz von Schülerinnen und Schülern mit Zuwanderungshintergrund. In K. Reiss, C. Sälzer, A.
 Schiepe-Tiska, E. Klieme, & O. Köller (Eds.), *PISA 2015: Eine Studie zwischen Kontinuität und Innovation* (pp. 317–347). Münster: Waxmann.
- Stocké, V., Blossfeld, H.-P., Hoenig, K., & Sixt, M. (2019). Social Inequality and educational decisions in the life course. In H.-P. Blossfeld & H.-G. Roßbach (Eds.), *Education as a lifelong process* (pp. 101–118). Wiesbaden: Springer Fachmedien.
- UNDP Syria, & Syrian Economic Sciences Society. (2018, July). Employment and livelihood support in Syria. Retrieved from https://www.undp.org/content/dam/syria/img/
 Publication%20thumbnails/Employment%20and%20Livelihoods%20study_English.pd f

- van de Werfhorst, Herman G., & Heath, A. (2019). Selectivity of migration and the educational disadvantages of second-generation immigrants in ten host societies. *European Journal of Population*, *35*, 347–378. doi: 10.1007/s10680-018-9484-2
- Welker, J. (2022). Relative education of recent refugees in Germany and the Middle East: Is selectivity reflected in migration and destination decisions? *International Migration*, 60(2), 65–80. doi: 10.1111/imig.12853
- Welker, J., Abou Hassoun, W., Al Rihawi, S., & Will, G. (2021). *Educational system,* participation, and attainment in pre-crisis Syria. (LIfBi Working Paper No. 100).
 Bamberg: Leibniz Institute for Educational Trajectories. doi: 10.5157/LIFBI:WP100:1.0
- Will, G., & Homuth, C. (2020). Education of refugee adolescents at the end of secondary school: The role of educational policies, individual and family resources. *Soziale Welt*, 71(1-2), 160–200. doi: 10.5771/0038-6073-2020-1-2-160
- Will, G., Homuth, C., Maurice, J. von, & Roßbach, H.-G. (2021). Integration of recently arrived underage refugees: Research potential of the study ReGES—Refugees in the German Educational System. *European Sociological Review*, Article jcab033. Advance online publication. doi: 10.1093/esr/jcab033