

Integration of refugees



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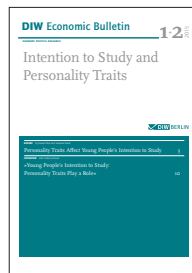
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Integrating refugees: insights from the past

By Philipp Eisnecker, Johannes Giesecke, Martin Kroh, Elisabeth Liebau, Jan Marcus, Zerrin Salikutluk, Diana Schacht, C. Katharina Spieß, and Franz Westermaier

According to current estimates, more than one million refugees arrived in Germany between 2014 and 2015. Their integration into German society and the labor market is now one of the most pressing policy issues. How can the various challenges be met? A look into the past can help provide some answers.

This special issue of the *DIW Economic Bulletin* analyzes survey data on refugees who arrived in Germany mainly between the years 1990 and 2010. Most of them came from the Western Balkans and from Arab and Muslim countries—regions that play a major role in the current immigration wave. These empirical findings may allow us to draw conclusions about how refugees in the recent past can be successfully integrated into Germany's education system and labor market.

The primary data basis is the IAB-SOEP Migration Sample, a joint initiative of the Institute for Employment Research (IAB) and the German Socio-Economic Panel (SOEP). Most of our analyses are based on results from surveys conducted in 2013. We compare refugees to non-refugee migrants who entered Germany during the same time period.

This issue of the *EB* investigates five different aspects of integration: the qualifications refugees brought with them to Germany, as well as their educational backgrounds and professional qualifications from abroad; language acquisition; labor market participation; the process of finding a first job in Germany; and the use of voluntary educational programs by children and adolescents from refugee backgrounds.

A mixed picture emerges overall, with some striking differences between refugees and other migrants: refugees

arrived with lower educational and professional qualifications, and were less likely to obtain recognition from German authorities of the educational and vocational certificates that they had received abroad (see the first report in this issue).¹ However, the majority of refugees had already gained work experience before arriving in Germany (acquired, for instance, through on-the-job training). These findings point to the need for better and more targeted provision of information for refugees on the recognition procedure and suggest the importance of expanding recognition to cover informally acquired qualifications in order to provide refugees with better job market prospects.

At the time of their arrival, refugees had lower German proficiency on average than did other migrants—yet their language skills improved more rapidly over time than did those of other migrants (see the second report in this issue).² Enrollment in the German education system and the use of German in various everyday situations are positively correlated with language acquisition among both refugees and other migrants.

Entry into the labor market took longer for refugees—especially for women from refugee backgrounds—than it did for other migrants. Although the employment rates between the two groups converged over time, employment structures and income levels of refugees still differed from those of other migrants and non-migrants, even years after the refugees' arrival (see the third report in this issue).³

¹ Liebau, E., Salikutluk, S. (2016): Many refugees have work experience but a smaller share possess formal vocational qualifications. *DIW Economic Bulletin* 35/2016, 392–399.

² Liebau, E., Schacht, D. (2016): Language acquisition: refugees nearly achieve proficiency level of other migrants. *DIW Economic Bulletin* 35/2016, 400–406.

³ Salikutluk, Z. et al. (2016): Refugees entered the labor market later than other migrants. *DIW Economic Bulletin* 35/2016, 407–413.

Box

Data and definitions

The Socio-Economic Panel (SOEP) and the IAB-SOEP Migration Survey

The Socio-Economic Panel (SOEP) is an annual follow-up survey of German households conducted by *TNS Infratest Sozialforschung* on behalf of DIW Berlin. The SOEP has been active in West Germany since 1984 and in East Germany since 1990.¹ The survey, which is based primarily on personal interviews with all adult household members, focuses on topics such as income, labor market participation, education, quality of life, life satisfaction, social participation, and health. In addition, adult respondents provide a range of information about the children living in the household, and adolescent household members also begin participating in the survey after the age of 16.

Since the first survey in 1984, the SOEP has included special samples of individuals with migrant backgrounds. This provides an important data base for analysis of the integration process.² For example, the 1984 sample (Sample B) focused on people from countries like Turkey, Yugoslavia, Italy, Spain, and Portugal – individuals who, between the 1950s and 1970s, were recruited to work in Germany. The immigration of (late) repatriates, especially during the 1990s, was the focus of a special sample from 1994³ (Sample D). The SOEP boost samples, which were added between 1998 and 2012 in order to maintain the overall sample size, also included a large number of households in which people with migrant backgrounds were living.

In 2013, the IAB-SOEP Migration Sample—a joint project between the Institute for Employment Research (IAB) of the Federal Employment Agency and the German Socio-Economic Panel (SOEP) at DIW Berlin—was conducted for the first time.⁴ This survey, which is also made available in an integrated form as Sample M1 in the SOEP's dataset and doubles the number

of migrant respondents in the SOEP, focuses on households of migrants who came to Germany in or after 1995 and either took a job that is subject to social insurance contributions or received transfers of the Federal Employment Agency.⁵

The reports in this issue of the *Economic Bulletin* are based primarily on data from the 2013 SOEP survey (SOEP.v31). This includes the IAB-SOEP Migration Sample, in which 30,956 adults and 13,933 children in 16,975 households participated. Nearly 10,000 adults and 5,000 children and adolescents in the 2013 survey reported a migrant background, which corresponds to roughly one third⁶ of all household members who took part in the SOEP survey that year.

The definition of refugees

In the SOEP, foreigners and other persons who were not born in Germany are asked when they immigrated to Germany and what kind of legal status they had at arrival. Altogether, 751 respondents (SOEP.v31, Table 1) reported entering Germany as asylum-seeker or refugee. A group of 5,612 individuals with migrant background was primarily made up of repatriates (i. e., ethnic Germans), labor migrants, and EU citizens as well as family migrants – for example, the spouse and children of a legal resident of Germany (this group is referred to here as “other migrants”). Among all migrants, 1,616 did not provide information on their status upon arrival and are therefore excluded from the analyses.

Minor children of immigrants who did not answer this question themselves were assigned the parents' legal status. For the years 1994 to 2014, there were 806 children of refugees and 6,370 children of other migrants in our sample. The sample also contains adolescents (aged 17), 101 of whom were categorized as refugees and 823 as other migrants.

The number of cases referred to in the different reports in this issue of the *Economic Bulletin* vary. Among other reasons, this is because the various analyses deal with different topics and use data on varying population groups (for example, employed persons in 2013).

1 Wagner, G. G. et al. (2008): Das Sozio-oekonomische Panel (SOEP): Multidisziplinäres Haushaltspanel und Kohorten Studie für Deutschland – Eine Einführung (für neue Datennutzer) mit einem Ausblick (für erfahrene Anwender). Allgemeines Statistisches Archiv 2 (4): 301–328.

2 Liebau, E. und Tucci, I. (2015): Migrations- und Integrationsforschung mit dem SOEP von 1984 bis 2012: Erhebung, Indikatoren und Potenziale. SOEP Survey Papers 270: Series C. Berlin: DIW/SOEP.

3 Schupp, J. und Wagner, G. G. (1995): Die Zuwanderer Stichprobe des Sozio-oekonomischen Panels (SOEP). In: Vierteljahrshefte zur Wirtschaftsforschung, Jg. 64, Heft 1, S. 16–25.

4 Brücker, H. et al. (2014): The new IAB-SOEP Migration Sample: an introduction into the methodology and the contents. SOEP Survey Papers 216: Series C. Berlin: DIW/SOEP.

5 Kroh, M. et al. (2015): The 2013 IAB-SOEP Migration Sample (M1): Sampling Design and Weighting Adjustment. SOEP Survey Papers 271: Series C. Berlin: DIW/SOEP.

6 This represents more than a quarter in the weighted case.

The reports on language skills, qualifications, and job acquisition are based solely on the 2013 IAB-SOEP Migration Sample. The report on the labor market integration of refugees and other migrants is based on SOEP data up to 2013 as well as the IAB-SOEP Migration Sample. The report on participation in voluntary educational programs is based on data from the SOEP of all first interviewees from 1994 onwards, as well as data from the IAB-SOEP Migration Sample. Data on "children" refer to individuals who met the corresponding age criterion between 2006 and 2014, while those on "adolescents" refer to those who met the corresponding age criterion between 2000 and 2014.

Immigration year and regions of origin

The present studies are based on interviews with refugees who, for the most part, arrived in Germany between 1990 and 2010; these individuals are thus *not* part of the recent major immigrant influx that began in 2014 and peaked in 2015. No data are available yet for these years. Refugees who arrived in Germany after 2013 are currently taking part in a survey conducted by the IAB and the SOEP in cooperation with the Federal Office for Migration and Refugees (*Bundesamt für Migration und Flüchtlinge*, or BAMF). The purpose of this issue of the *Economic Bulletin* is to provide insight into the integration process of past refugees and migrants, which can be used to help the migrants of today as well as in the future.

More than half of the refugees surveyed here immigrated in the 1990s (Table 2). 8 percent of the other migrants have been living in Germany for several decades. Hence, the analyses are based on individuals who immigrated to Germany and remained long-term.

The refugees of the 1990s came primarily from civil war-torn regions such as the former Yugoslavia. There is also a higher percentage of individuals from Arab and Muslim countries (30 percent) in the group of refugees than in the group of other migrants. Refugees and other migrants reported, on average, similar ages at the time of the survey (43 years old) as well as at the time of entry (23 years old). The percentage of women was lower among refugees (44 percent) than among other migrants (56 percent).

Even though the survey did not include refugees who have arrived to Germany since 2014, many of the 2013 survey respondents came from comparable countries of origin (Western Balkans as well as Arab and Muslim countries).

Table 1

Respondents in SOEP and the IAB-SOEP Migration Survey

	Refugees ¹	Other migrants ²
Adult migrants		
Cumulative number of respondents (1994-2014)	751	5,612
Of that: Respondents in 2013	578	4,520
Children and adults with refugee background		
Cumulative number of respondents (1994-2014)	806	6,370

¹ Persons who report having entered Germany as asylum-seeker or refugee.

² Persons who report having entered Germany as immigrants, labor migrants, and EU citizens, as well as dependents of migrants.

Source: SOEP.v31

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Table 2

Age, gender, and migration experience

	All respondents 1994-2014 Refugees		All respondents 1994-2014 Other migrants	
		Of that: respondents 2013		Of that: respondents 2013
Women (in percent)	44	44	54	56
Age (average in years)				
Age of respondents 2013	-	43	-	42
Age at immigration	-	23	-	24
Immigration period (share in percent)	100	100	100	100
1949-1979	2	2	8	8
1980-1989	10	9	10	10
1990-1999	55	59	37	38
2000-2009	30	28	40	39
2010-2014	3	2	5	5
Region of origin (in percent)	100	100	100	100
EU-28	6	6	37	37
South-east Europe ¹	39	42	16	16
Post-Soviet States ²	17	17	36	37
Arab/Muslim countries ³	33	30	4	4
Other countries	6	6	6	6

¹ Albania, Bosnia-Herzegovina, Macedonia, Montenegro, Serbia, Turkey.

² Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Ukraine, Uzbekistan, Tajikistan, Turkmenistan, Belarus.

³ Afghanistan, Egypt, Algeria, Bangladesh, Burkina Faso, Gambia, Guinea, Yemen, Iraq, Iran, Indonesia, Kuwait, Lebanon, Libya, Morocco, Malaysia, Mali, Pakistan, Palestine, Senegal, Somalia, Sudan, Syria, Chad, Tunisia.

Source: SOEP.v31 (unweighted analyses).

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Any institutional obstacles hindering refugees' swift integration into the labor market should therefore be eliminated as quickly as possible. It is also critical that refugees find jobs that match their qualifications.

Half of the refugees in the sample found their first job in Germany informally through friends, acquaintances, and relatives (see the fourth report in this issue).⁴ This was particularly the case for refugees who already had contacts in Germany but spoke no German upon arrival. But overall, those refugees who were working in Germany were somewhat more likely than other migrants to have found their job through formal means like job advertisements or job agencies.

Children of refugees, as well as children and adolescents who were refugees themselves, took advantage of volun-

tary educational programs as often, or more often than did other children—primarily when it came to extracurricular school activities (see the fifth report in this issue).⁵ However, refugee children under the age of three were less likely to attend day care centers and were in later ages significantly less likely to take part in some of the non-formal educational activities held outside of school. This appears to indicate that voluntary educational programs outside of school and non-formal offerings for toddlers and preschoolers are not yet being utilized by refugee children as extensively as they could be. To promote wider use of these programs, it would be helpful to expand intercultural exchange through training and increased recruitment of volunteer and full-time staff with migrant or refugee backgrounds.

⁴ Eisnecker, P., Schacht, D. (2016): Half of refugees in Germany found their first job through social contacts. DIW Economic Bulletin 35/2016, 414–421.

⁵ Spiess, C. K. et al. (2016): Children and adolescents with refugee background less likely to participate in voluntary educational programs - with exception of extracurricular school activities. DIW Economic Bulletin 35/2016, 422–430.

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FIVE QUESTIONS TO MARTIN KROH

»A variety of measures and initiatives can accelerate the immigration process for today's refugees«

1. Prof. Kroh, DIW Berlin analyzed 2013 survey data on refugees who, for the most part, came to Germany between 1990 and 2010. How many of those refugees were employed in Germany at the time of the survey? In the group we analyzed, approximately two thirds of all male refugees reported finding a job within the first five years of their arrival in Germany. This share was considerably smaller among female refugees: only one out of every four had found a job in the same time span. Overall, more refugees than other migrants were still unemployed even years after their arrival in Germany.
2. Which countries did the refugees come from, and what kind of qualifications and language skills did they have upon arrival? Many respondents to our survey came in the 1990s from the civil war-stricken regions of Yugoslavia or from Muslim and Arab countries. In many of these countries, formal vocational qualifications apart from university degrees are uncommon—and these kinds of vocational qualifications are important on the German labor market. Approximately half of the refugees arrived in Germany with a formal education. Many of the younger refugees invested effort in obtaining educational and vocational qualifications in Germany. The situation was more difficult for older refugees. Refugees' German language proficiency upon arrival was typically very poor—which is to be expected, since refugee migration is by nature unplanned. The opposite is the case for labor migration, where potential migrants can prepare themselves ahead of time.
3. What kinds of conclusions can be drawn from your findings on the current refugee situation? Integration into the labor market has typically taken longer for refugees than it has for other migrants. But refugees also showed signs of catching up to some extent during the period under study. That is noteworthy, since we are talking about a time when there were far fewer measures promoting labor integration than exist today.

The institutional obstacles to labor market participation posed by the application process itself were also clearly more difficult to overcome than they are today. In this respect, we do not share the pessimism about labor market integration of today's refugees that is sometimes heard in public debates.

4. What kinds of institutional obstacles stand in the way of refugees' labor market integration? In our study, we are dealing with refugees from the past 20 years. During this time, there were various changes in labor market access for recognized refugees and tolerated persons (those with a *Duldung*). Even in the past few months, this access has been improved for more diverse groups of people. In the past, however, refugees and tolerated persons were subject to work restrictions during the application process. So if an application process takes one full year, as is currently the case, this also pushes back labor market entry by one year. If we want to accelerate refugees' entry to the labor market, we need put the institutional structures in place to make this possible. It is also important that refugees have the possibility to start attending language courses while waiting for their applications to be approved—but currently we don't have the capacity to offer that to everyone.
5. Labor market integration is not the full picture. What about integration into German society? There is a broad civic engagement in this area that has continued despite the increasingly critical tenor of debate in recent months. This is of course important for the integration process. Moreover, children of refugees frequently take advantage of extracurricular activities offered in schools. Refugees are less likely than the rest of the population to send children under the age of three to day care, however, so there is still potential here for further integration.

Interview by Erich Wittenberg

Many refugees have work experience but a smaller share possess formal vocational qualifications

By Elisabeth Liebau and Zerrin Salikutluk

Academic and vocational qualifications play a crucial role when it comes to successfully integrating refugees and other migrants into society. What qualifications did migrants already acquire in their country of origin and which did they obtain in Germany? And to what extent are qualifications gained abroad recognized in Germany? The IAB-SOEP Migration Sample shows that the majority of the migrant groups studied in the present report completed their schooling abroad and already gained professional experience there. However, only a smaller share possess formal vocational qualifications. One-third of refugees and other migrants applied for foreign qualifications to be recognized in Germany. However, the recognition rate is low for refugees.

For migrants to find work in Germany, it is crucial that the qualifications they bring with them are in demand on the German labor market. On the one hand, it is important that they learn German and invest in further training programs, and on the other, they should seek recognition of their academic and vocational certificates in Germany.

Age and planned or permitted duration of stay are key factors when making educational decisions. Unlike other migrants, asylum-seekers may be less motivated to invest in further qualifications in Germany because their prospects of staying there and the duration of their stay is uncertain until their status is clarified.

There are currently no empirically reliable data that enable us to make comprehensive statements about individuals who came to Germany during the recent wave of refugee migration.¹ In the public discourse on the qualification levels of refugees, predictions have ranged from very pessimistic² to extremely optimistic,³ with some experts forecasting that refugees will help to counter the shortage of skilled workers in some sectors. Studying migrants who have been living in Germany for a longer period offers insights into the opportunities for and obstacles to successful integration of refugees and other migrants. Based on the findings, social policy can be tailored to address these challenges.

The present report considers in more detail the qualification levels of refugees and other migrants who have lived in Germany for an average of 18 and 16 years, respectively, based on the joint migration sample from the Socio-Economic Panel (SOEP) study and the Institute for Employment Research (IAB) (see box). The IAB-SOEP Migration Sample examines both qualifications that migrants had *prior* to their arrival in Germany and qualifications acquired *after* migrating to Germany. Finally, the data provide detailed information on the extent to which applications have been submitted to have foreign qualifications recognized and to what extent these applications have been successful.

¹ For an exception, see the German Federal Employment Agency, "Ge-flüchtete Menschen in den Arbeitsmarktstatistiken - Erste Ergebnisse," *Statistik/Arbeitsmarktberichterstattung* (Nuremberg: 2016).

² See, for example, "Zwei Drittel können kaum lesen und schreiben," *Die Zeit*, December 3, 2015, <http://www.zeit.de/2015/47/integration-fluechtlinge-schule-bildung-herausforderung>.

³ See for example, "DGB sieht Flüchtlinge als „große Chance“ für den Osten," *Die Welt*, December 28, 2015, <http://www.welt.de/politik/deutschland/article150371564/DGB-sieht-Fluechtlinge-als-grosse-Chance-fuer-den-Osten.html>.

Box

Data basis

The data basis for the analyses is the IAB-SOEP Migration Sample. It was conducted in 2013 as a joint project between the Socio-Economic Panel (SOEP) study and the Institute for Employment Research (IAB).¹ It is one of the many subsamples of the SOEP, a longitudinal survey of households in Germany conducted annually since 1984.²

The in-depth survey of educational biographies in the Migration Sample enables differentiated analyses of school and vocational qualifications acquired abroad and in Germany. It also makes it possible to study whether respondents have applied to have foreign qualifications recognized in Germany, what the recognition

rates are, and what reasons respondents give for not seeking recognition of foreign qualifications.

According to information about entry status, there were 446 refugees in this sample who had already lived in Germany for an average of 18 years when they were surveyed. This longer period of stay enables us to take a more in-depth look both at qualifications earned abroad and at those earned in Germany. Due to the small sample sizes in many analyses of refugees, however, the findings should be treated with caution.

Furthermore, it must be emphasized that the educational trajectories of refugees who have lived in Germany for many years may differ, in some cases significantly, from those of refugees who have come to Germany very recently. These latter individuals may have very different prospects of being able to stay, which affects their efforts to attain educational qualifications in Germany or apply for recognition of foreign qualifications. Some recent refugees may also want to return to their countries of origin as soon as possible after conflicts end or security conditions improve.

1 For details, see H. Brücker, M. Kroh, et al., "The New IAB-SOEP Migration Sample: An Introduction into the Methodology and the Contents," *SOEP Survey Papers* (2014): 216 and M. Kroh, S. Kühne, et al., "The 2013 IAB-SOEP Migration Sample (M1): Sampling Design and Weighting Adjustment," *SOEP Survey Papers* (2015): 271.

2 See also the term "Sozio-oekonomisches Panel (SOEP)" in DIW Berlin's glossary: http://diw.de/de/diw_01.c.412809.de/presse/diw_glossar/sozio_oekonomisches_panel_soep.html (in German only).

Majority of migrants completed their school education abroad

Most refugees and other migrants completed their schooling abroad before coming to Germany⁴ (see Table 1). One-fifth of adult refugees and one-quarter of other migrants living in Germany in 2013 reported having attended school most recently in Germany. In both groups, only two percent of respondents were attending school at the time of the survey.

What qualifications did migrants acquire abroad?

To be able to use qualifications obtained abroad, migrants need to acquire further skills, including proficiency in German and an understanding of the German labor market.⁵ If, however, they are still in school after arriving in Germany, they can learn German and get to

4 For the majority of respondents, abroad refers to their native country. However, it cannot be ruled out that some individuals had already migrated to third countries prior to their arrival in Germany and acquired academic and vocational qualifications there.

5 Cf. Frank Kalter, "Ethnische Ungleichheit auf dem Arbeitsmarkt," in *Arbeitsmarktsoziologie*, eds. M. Abraham and T. Hinz (Wiesbaden: 2005), 303–332.

Table 1

Country in which Respondent Last Attended School

Share in percent

	Total		At least 16 at immigration		Younger than 16 at immigration	
	Refugees	Other migrants	Refugees	Other migrants	Refugees	Other migrants
Currently attending school	2	2	1*	0	6	6
Outside Germany	78*	73	94	93	1	5
In Germany	20*	25	5	7	93	89
N	418	3 177	332	2 501	86	676

Case numbers below 30 are in italics. T-test comparison between refugees and other migrants, *p < 0.05.

Source: IAB-SOEP Migration Sample (2013) of SOEP. v31, weighted; estimations by DIW Berlin.

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The large majority of refugees and other migrants attended school abroad.

know how the the German education system and labor market work as part of their education.

Table 2

Duration and level of schooling abroad

	Total		Refugees		Other migrants	
	Refugees	Other migrants	Men	Women	Men	Women
Average duration in years	9.9	10.0	9.8	10.1	10.0	10.0
N	300	2,318	186	114	1,000	1,318
Share in percent						
Dropped out of school	20*	10	18	24	9*	11
Completed compulsory schooling	32*	40	36*	24	44*	37
Completed upper secondary schooling	48	50	46	52	47*	52
N	310	2,350	194	116	1,013	1,337

Case numbers below 30 are in italics. T-test comparison between refugees and other migrants, *p < 0.05.

Source: IAB-SOEP Migration Sample (2013) of SOEP.v31, weighted; estimations by DIW Berlin.

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Around half of all refugees and other migrants completed formal education beyond compulsory schooling.

Table 3

Vocational qualifications obtained abroad

In percent

	24 years or older at immigration					
	Total		Refugees		Other migrants	
	Refugees	Other migrants	Men	Women	Men	Women
No qualification	55*	41	55	55	40	42
Other qualification	7	2	2	0	3	7
Apprenticeship	15	15	18	11	17*	13
Attended vocational school	9*	17	8	10	17	16
Attended university	20*	25	17	24	23*	28
N	261	1,821	151	110	804	1,017

Case numbers below 30 are in italics. T-test comparison between refugees and other migrants, *p < 0.05.

Source: IAB-SOEP Migration Sample (2013) of SOEP.v31, weighted; estimations by DIW Berlin.

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The majority of refugees did not possess formal vocational qualifications.

Non-refugee migrants have higher levels of schooling attained abroad

Refugees and other migrants living in Germany attended an average of ten years of general schooling abroad before coming to Germany (see Table 2).⁶ When differentiating by level of educational qualification, other migrants tended to be more qualified than refugees: 40 percent of the former group completed compulsory educa-

⁶ The median in both migrant groups was also ten years.

tion and 50 percent went on to complete higher levels of education. The share of refugees was slightly lower, with 32 percent completing compulsory education and 48 percent graduating from upper secondary school.⁷ Conversely, the proportion with no educational qualifications was higher among refugees (20 percent) than other migrants (10 percent). In both groups, a larger share of women than men graduated from upper secondary school (52 to 46 and 47 percent, respectively).

Only a minority of refugees attained formal vocational qualifications in their country of origin

The model of dual vocational education and training (VET) that links learning professions in companies and vocational schools is not widespread outside of Central Europe. This may be one reason why the share of those with no formal vocational certificate is relatively high in both groups (see Table 3). If we look at migrants who were aged 24 years or older when they arrived and therefore able to complete their vocational training before migrating to Germany, 55 percent of refugees and 41 percent of other migrants had no formal vocational qualification at all. One fifth of refugees and one fourth of other migrants earned a university degree abroad. As a result, other migrants were more likely than refugees to have higher vocational qualifications from their country of origin. In both groups, more women had university degrees than men.

Majority of migrants gained work experience abroad

Besides formal academic and vocational qualifications, which play a significant role on the German labor market, migrants also bring vocational qualifications, often acquired through on-the-job training in their countries of origin.

Overall, 86 percent of refugees and 89 percent of other migrants in the sample aged 24 years or older on arrival attained vocational experience abroad (see Table 4). In both groups, women had less work experience than men, but the gender difference was greater among refugees than among other migrants.⁸

⁷ In both groups of migrants, the median of the duration of relevant school attendance for those who successfully completed compulsory education was nine years, and 12 years for those with a further education qualification to which we refer to as upper secondary education.

⁸ See A. K. Rich, "Asylerstantragsteller in Deutschland im Jahr 2015: Sozialstruktur, Qualifikationsniveau und Berufstätigkeit," *BAMF-Kurzanalysen*, no. 3 (2016). The reported shares of those with employment experience from abroad, particularly among women, are considerably higher than in the *BAMF-Kurzanalyse* by Rich. In addition to considering very different migration years and age groups, the different pictures can be explained by Rich's report asking about

The average work experience was around 14 years in both groups.⁹ Men were employed abroad longer than women. Again, the gender difference was greater among refugees than in the group of other migrants.

What qualifications did migrants earn in Germany?

One-fifth of refugees and one-quarter of other migrants attended school in Germany (see Table 1). This is especially the case for those who were of school age upon arrival. Those who were older tended more to go into vocational training. Here, migrants can earn the qualifications they are missing or build on qualifications already attained (abroad) with further qualifications.¹⁰

Refugees achieved higher academic qualifications in Germany than other migrants

Compared to other migrants, refugees are more likely to graduate from upper secondary school (36 percent versus 26 percent). Women were more likely to graduate from upper secondary school (*Abitur*) than men and less likely to graduate from lower secondary school (*Hauptschulabschluss*) or to leave school without graduating.

Young migrants in particular earned vocational qualifications

In 2013, almost one-sixth of refugees and one-third of other migrants acquired vocational qualifications in Germany or were still in training (see Table 6), whereby no gender difference were apparent. Migrants who did not obtain vocational training in their country of origin could increase their chances of getting a more highly qualified jobs by completing vocational education and training in Germany: This was true for 18 percent of refugees and 38 percent of other migrants. However, age appears to be a much more decisive factor in the completion of vocational education and training than making up for a lack of qualifications.

When focusing on those aged 24 or younger¹¹ on immigration to Germany, the share that had completed vocational education in Germany or were still in training in

their latest employment status as opposed to the present report which analyzes whether migrants have gained any employment experience abroad at all.

9 The average age at migration of those in the subpopulation who were aged 24 years and older on arrival in Germany is 35 years.

10 A detailed description of access to training at educational facilities for refugees can be found in Robert Bosch Stiftung (pub.), "Chancen erkennen – Perspektiven schaffen – Integration ermöglichen," *Bericht der Robert Bosch Expertenkommission zur Neuaufrichtung der Flüchtlingspolitik* (Stuttgart: Robert Bosch Stiftung GmbH, 2016): 129ff.

11 The average age at migration in both groups of migrants in this subpopulation was 16 years.

Table 4

Work experience abroad

	Total		Refugees		Other migrants	
	Refugees	Other migrants	Men	Women	Men	Women
24 or older at immigration						
Percentage with work experience abroad	86	89	94*	75	94*	84
N	256	1,804	149	107	795	1,009
24 or older at immigration and at least 1 year work experience abroad						
Average work duration in years	14.2	13.9	15.1*	12.4	14.5*	13.4
N	210	1,568	140	70	739	829

T-test comparison between refugees and other migrants and between men and women within migrant groups, *p < 0.05.

Source: IAB-SOEP Migration Sample (2013) of SOEP v31, weighted; estimations by DIW Berlin.

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Most refugees and other migrants gained work experience before migrating to Germany abroad.

Table 5

School attendance in Germany by refugees and other migrants

In percent

	Total		Refugees		Other migrants	
	Refugees	Other migrants	Men	Women	Men	Women
Dropped out of school	5	4	9	2	5	3
Other educational certificate	2	2	1	2	2	2
Lower secondary school	35	39	37	33	44*	34
Intermediate secondary school	22	29	14	30	25	32
Technical secondary school	16	10	24*	8	10	11
Upper secondary school	20	16	15	25	14	18
N	90	695	43	47	346	349

Case numbers below 30 are in italics. T-test comparison between refugees and other migrants and between men and women within migrant groups, *p < 0.05.

Source: IAB-SOEP Migration Sample (2013) of SOEP.v31, weighted; estimations by DIW Berlin.

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Refugees graduated from technical or upper secondary school more often than other migrants.

the survey year was 26 percent for refugees and 47 percent for other migrants. Among those under the age of 24 in 2013, 45 percent of refugees and 60 percent of other migrants had completed or were still attending vocational education and training. In the age group of 24 to 34 year olds, it was 46 and 51 percent, respectively. Participation rates declined substantially among those aged 34 or older. Here, 20 percent of other migrants had com-

Table 6

Participation in vocational training in Germany among refugees and other migrants

In percent

	Total		Refugees		Other migrants		No vocational qualification from abroad		Already attended school in Germany	
	Refugees	Other migrants	Men	Women	Men	Women	Refugees	Other migrants	Refugees	Other migrants
No participation in vocational training in Germany to date	85*	70	84	87	69	71	82*	62	45*	34
Currently in vocational training	5	7	5	5	6*	8	7	9	24*	13
Completed vocational training in Germany	10*	23	11	8	25*	21	11*	29	31*	53
N	446	3,199	254	192	1,421	1,778	308	1,800	92	718
By age groups	Under 24 years old at immigration		under 24 years		24 to 34 years		34 years or older			
	Refugees	Other migrants	Refugees	Other migrants	Refugees	Other migrants	Refugees	Other migrants		
No participation in vocational training in Germany to date	74*	53	55*	40	56	49	93*	80		
Currently in vocational training	11	11	37	46	18	12	0*	2		
Completed vocational training in Germany	15*	36	8	14	26*	39	7*	18		
N	201	1,504	44	318	65	746	337	2,135		

Case numbers below 30 are in italics. T-test comparison between refugees and other migrants, *p < 0.05.

Source: IAB-SOEP Migration Sample (2013) of SOEP.v31, weighted; estimations by DIW Berlin.

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Other migrants completed more frequently vocational training than refugees.

pleted or were attending vocational education, while this was the case for only 7 percent of refugees.

Refugees and other migrants were especially likely to complete vocational education and training in Germany if they had attended school in Germany. In this group, the share with vocational qualifications or those in train-

ing at the time of the survey rose to around 55 percent among refugees and 66 percent among other migrants.

If refugees had completed their vocational training in Germany, they were more likely than other migrants to complete an apprenticeship, but less likely to attain a university degree (see Table 7).

Refugees' qualification levels vary by region of origin

Qualification levels can also be considered using the internationally comparable CASMIN classification, which combines the highest educational and vocational qualifications.¹² Using this classification reveals some key differences between refugees and other migrants. The share of individuals with no academic or vocational qualification at all was 15 percent among refugees, almost twice as high as among other migrants (eight percent, see Table 8). Refugees were more likely to have attended school but have no further vocational qualifications. Finally, other migrants are better qualified than refugees overall—not least due to the higher share of university graduates in this group.

Table 7

Percentage of vocational training completed in Germany

In percent

	Refugees	Other migrants
Other degree	5	3
Apprenticeship	55	51
Vocational school	29*	17
University	11*	29
N	52	640

Case numbers below 30 are in italics. T-test comparison between refugees and other migrants, *p < 0.05.

Source: IAB-SOEP Migration Sample (2013) of SOEP.v31, weighted; estimations by DIW Berlin.

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Refugees completed apprenticeships or vocational school at a higher rate than other migrant groups.

¹² See W. Müller, P. Lüttinger, W. König, and W. Karle, "Class and Education in Industrial Nations," *International Journal of Sociology*, no. 19 (1989): 3–39.

Table 8

Highest level of academic or vocational qualification¹

In percent

	Total		Refugees			Other migrants		
	Refugees	Other migrants	South-east Europe	Post-Soviet States	Arab/Muslim countries	South-east Europe	Post-Soviet States	Arab/Muslim countries
No degree/diploma	15*	8	12	0*	21*	14	5*	13
Lower secondary diploma without vocational training	22	20						
Lower secondary diploma with vocational training	12*	17						
Intermediate secondary diploma without vocational training	16*	12						
Intermediate secondary diploma with vocational training	13*	17	82	45*	68*	79	75	56*
Advanced technical / upper secondary diploma without vocational training	5*	2						
Advanced technical / upper secondary diploma with vocational training	1	3						
Technical college degree	1	1						
University degree	15*	20	6	55*	11	7	20*	31*
N	402	3,057	165	83	120	565	1,122	116

¹ Categories according to CASMIN educational classification.

Case numbers below 30 are in italics. T-test comparison between refugees and other migrants and between men and women within migrant groups, * $p < 0.05$.

Source: IAB-SOEP Migration Sample (2013) of SOEP.v31, weighted; estimations by DIW Berlin.

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On average, other groups of migrants show higher levels of qualification than refugees.

Separating migrants by region of origin reveals further distinctions. For example, qualification levels are higher among refugees from the territory of the former Soviet Union than among other migrants from this region. Given the recent wave of refugee migration, it is particularly interesting to look at the average qualification levels of earlier refugees from Arab and Muslim countries. When refugees from these countries are compared with those from Southeastern Europe, the share of people from Arab or Muslim countries with no qualifications at all is higher, but so is the share of those who had already attained a university degree. This considerable difference by country of origin can also be expected for migrants from the most recent refugee migration. While a relatively large share of asylum-seekers from Syria and Iran have completed higher education, this applies to a lower share of refugees from Serbia and Macedonia.¹³

These findings refer to the self-reported highest level of education, without distinguishing by the country in which it was obtained. Consequently, it should be taken into account that an individual with high qualifications from abroad may not benefit from them fully in Germany, for example, if the qualification is not recognized.

Refugees and other migrants equally unlikely to apply to have their foreign qualifications recognized

Recognition processes have two primary functions. First, if the outcome is successful, they ensure that migrants meet the formal requirements for certain occupations. Second, they allow employers to assess the vocational skills and experience of potential employees with qualifications acquired abroad.

In 2013, the vast majority of respondents (87 percent of refugees and 89 percent of other migrants with a foreign vocational qualification) had a certificate they could submit for official recognition (see Table 9). However, only one-third of both refugees and other migrants had attempted to obtain recognition of a formal qualification. While refugees stated that administrative barriers were the reason they had not yet attempted to have their qualifications recognized (33 percent), this played a comparatively minor role for other migrants, at 17 percent. In particular, refugees reported that a lack of information about where and how to apply for recognition and missing documents held them back from submitting an application (not shown in the table).

¹³ A. K. Rich, "Asylerantragsteller in Deutschland im Jahr 2015: Sozialstruktur, Qualifikationsniveau und Berufstätigkeit," *BAMF-Kurzanalysen*, no. 3 (2016).

Table 9

Recognition procedure
In percent

	Refugees	Other migrants
Of those with foreign vocational qualifications		
Percentage with certificate	87	89
N	137	1,397
Of those with certificate		
Percentage that applied for recognition	32	34
N	116	1,263
Of those that did not apply for recognition		
Not important for me	20*	38
Administrative hurdles	33*	17
No prospect of recognition	12	17
Other reasons	35	28
N	68	840
Of those that did apply for recognition		
Percent rejected	35	16
N	48	431

Case numbers below 30 are in italics. T-test comparison between refugees and other migrants and between men and women within migrant groups, *p < 0.05.

Source: IAB-SOEP Migration Sample (2013) of SOEP.v31, weighted; estimations by DIW Berlin.

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Refugees' applications for recognition of foreign vocational qualifications were rejected more frequently than those of other migrants.

Refugees' applications for recognition of qualifications much more likely to be rejected than those of other migrants

German authorities were much more likely to reject applications by refugees to have their qualifications recognized (35 percent) than those by other migrants (16 percent). It can therefore be assumed that, as a result, refugees took jobs that were below their skill level.

It is important to note, however, that none of the migrants in this report were able to make use of the Federal Recognition Act (*Anerkennungsgesetz*), adopted in 2012 to revise the recognition process. The introduction of this law increased access to information about the prospects of and opportunities for having foreign qualifications recognized—which has since resulted in a considerable increase in applications. The number of recognized equivalent qualifications from abroad has risen while, at the same time, rejection rates have fallen.¹⁴ Since the recognition of foreign qualifications improves migrants' employment prospects, allowing them to achieve their po-

¹⁴ German Federal Cabinet, *Bericht zum Anerkennungsgesetz* (2016).

tential, the developments of recent years can be seen as positive in this respect.¹⁵

Conclusion

Compared to other migrants, refugees bring a lower level of qualifications from abroad and they also attain lower qualifications in Germany. However, refugees who attend school in Germany are at an advantage. Here they complete upper secondary schools at a higher rate than other migrants. This applies to the refugees and other migrants studied in this report, who came to Germany before the recent wave of refugee migration. However, since more young refugees are likely to have migrated in the recent wave of migration, and given the early indications that a relatively large share of asylum-seekers attended secondary school or university in their country of origin,¹⁶ the differences could be smaller in the future.

A considerable share of migrants considered in the present report had no formal vocational qualifications from abroad. This was particularly true for refugees. Recent efforts to establish whether migrants have informal qualifications (see Projekt ValiKom)¹⁷ should therefore be welcomed and expanded. Positive developments in recognition rates since the introduction of the Federal Recognition Act of 2012 suggest that migrants who have not attempted to have their qualifications recognized to date, or have had them rejected and since acquired further qualifications or relevant work experience should (re)submit an application. Academic and vocational training is crucial, both for migrants and for those without a migration background. Furthermore, training provides crucial opportunities on the German labor market that can improve migrants' long-term social inclusion and life chances. The Integration Act has also created more legal certainty for asylum-seekers and those with leave to remain (*Duldung*) who are commencing vocational training in Germany. Since the prospects of these individuals staying in Germany are dependent on the duration of the training course and subsequent employment, asylum-seekers may be even more motivated to take up an vocational training.

In particular, a lack of knowledge about the recognition process in the past seems to have prevented refugees from applying to have their qualifications recognized. Despite the more comprehensive information now pro-

¹⁵ I. Kogan, "Potenziale nutzen! Determinanten und Konsequenzen der Anerkennung von Bildungsabschlüssen bei MigrantInnen aus der ehemaligen Sowjetunion in Deutschland," *Kölner Zeitschrift für Soziologie und Sozialpsychologie*, no. 64(1) (2012): 67-89.

¹⁶ A. K. Rich, "Asylerstantragsteller in Deutschland im Jahr 2015: Sozialstruktur, Qualifikationsniveau und Berufstätigkeit," *BAMF-Kurzanalysen*, no. 3 (2016).

¹⁷ German Federal Cabinet, *Bericht zum Anerkennungsgesetz*: 65ff.

vided, refugees who have migrated recently are probably not sufficiently aware that they need to have certain qualifications recognized to practice their professions in Germany.¹⁸ Consequently, expanding access to the rele-

vant sources of information is necessary for those who want to work in regulated professions (as medical or legal professionals or teachers in public schools).¹⁹

18 Brücker et al., "Geflüchtete Menschen in Deutschland. Warum sie kommen, was sie mitbringen und welche Erfahrungen sie machen," *IAB-Kurzbericht*, no. 15 (2016).

19 For an overview of all regulated professions in the individual EU countries, see the European Commission's regulated professions database, <http://ec.europa.eu/growth/tools-databases/regprof/> (2016).

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JEL: F22, I21, I28, J24

Keywords: Refugees, education acquisition, human capital, recognition of foreign degrees

Language acquisition: refugees nearly achieve proficiency level of other migrants

By Elisabeth Liebau and Diana Schacht

Whether they're looking to participate in social life, enter the German labor market, or obtain relevant training certificates, learning German is a critical part of integration for the majority of refugees—and yet only a handful of studies have examined their language acquisition patterns and skill levels. The IAB-SOEP Migration Sample, which was collected by the Institute for Employment Research (Institut für Arbeitsmarkt- und Berufsforschung) and the German Socio-Economic Panel (SOEP), offers new findings on German language acquisition among refugees; the present analysis, conducted by DIW Berlin, identifies factors that have been positively correlated with German language acquisition among refugees as well as non-refugee migrants.

According to the survey, most refugees did not speak any German upon their arrival in Germany—but with time, they approximated the German language proficiency of Germany's non-refugee migrants. Positively correlated factors include the refugee's age at the time of immigration as well as his or her prior educational background. Once they were in Germany, refugees' fluency improved with time, participation in the German education system, and frequent usage of the language, especially in the workplace.

Language skills are of paramount importance in the integration process of all migrants,¹ including refugees – proficiency is essential for social purposes as well as job market participation.² Nonetheless, few empirical findings on this topic are available when it comes to refugees in Germany.³ It is unclear to what extent comparable studies in other countries—for example, on the language acquisition of refugees in the Netherlands—or on other migrant groups within Germany can be applied to Germany's refugee population.⁴ Since refugees' biographical backgrounds and the situations in their respective host countries can differ from those of other migrants, their language acquisition processes may also follow different patterns. For example, refugees rarely prepare for their move to the host country, and for the most part have neither the time nor the opportunity to learn a new language in advance.⁵ Moreover, unlike other migrants, refugees' participation in language and integration courses depends on their obtention and the limitations of a residence permit, which can lead to certain disadvantages compared to non-refugees.

The IAB-SOEP Migration Sample⁶ allows us to evaluate which circumstances factor into the language acquisition of Germany's refugees, and to what extent these circumstances differ from those of other migrants. It is important to note, however, that the survey was conducted in 2013 and thus the data do not necessarily apply to

¹ Portes, A., Rumbaut, R. G. (2006): *Immigrant America: A Portrait*. Los Angeles: University of California Press.

² Van Tubergen, F. (2010): Determinants of second language proficiency among refugees in the Netherlands. *Social Forces*, 89 (2), 515-534.

³ See, for example: Geis, W., Orth, A. K. (2015): *Flüchtlinge – Herausforderung und Chance für Deutschland*, IW Policy 26/2015 or Brücker, H., Fendel, T., et al. (2016): *Geflüchtete Menschen in Deutschland: Warum sie kommen, was sie mitbringen und welche Erfahrungen sie machen*. IAB-Kurzbericht 15/2016. Nürnberg.

⁴ Van Tubergen, F. (2010), *supra*. For an international comparative study that includes Germany, see Kristen, C., Mühlau, P., et al. (2016): Language acquisition of recently arrived immigrants in England, Germany, Ireland, and the Netherlands. *Ethnicities*, 16 (2), 180-212.

⁵ Brücker, H., Fendel, T., et al. (2016), *supra*.

⁶ Socio-Economic Panel (SOEP), data from 1984–2014, Version 31, SOEP, 2015. Doi: 10.5684/soep.v31.

Box 1

Data and operationalization

The Socio-Economic Panel (SOEP) is a longitudinal survey of Germany’s private households that has been being conducted since 1984. The present analysis is based on the IAB-SOEP Migration Sample, which was gathered in 2013 within a cooperative project between SOEP and the Institute for Employment Research (Institut für Arbeitsmarkt und Berufsforschung).¹

The survey solicited data on respondents’ biographical backgrounds, respective integration indicators, and social participation. Using information on each respondent’s entry status, roughly 400 refugees were identified among the sample.

¹ For details, see Brücker, H., Kroh, M., et al. (2014): The New IAB-SOEP Migration Sample: An Introduction into the Methodology and the Contents. SOEP Survey Papers, 216, a nd Kroh, M, Kühne, S., et al. (2015): The 2013 IAB-SOEP Migration Sample (M1): Sampling Design and Weighting Adjustment. SOEP Survey Papers, 271.

On average, they had been living in Germany for 18 years at the time of the survey. Due to the small sample size, further differentiations among the refugees—by country of origin, for example—is not possible.

The study participants were asked to rate their German skills in speaking, reading, and writing at two points in time: upon their arrival in Germany, and at the time of the survey. Each skill was self-assessed by the respondents using a Likert scale ranging from excellent (5), good (4), sufficient (3), poor (2), and none (1). Since the individual dimensions of German language skills are highly correlated (Cronbach’s alpha $\alpha = 0.97$ upon arrival, and $\alpha = 0.94$ in 2013), they have been combined into one index, the average of all three dimensions. The difference between the German proficiency at the time of the influx and at the time of the survey in 2013 is interchangeably referred to as “language acquisition” or “language development.”

the recent influx of refugees that began mid-2015. Respondents had spent an average of 17 years in Germany at the time of the survey, which means that the sample is primarily made up of refugees and other migrants who came to Germany in the 1990s.

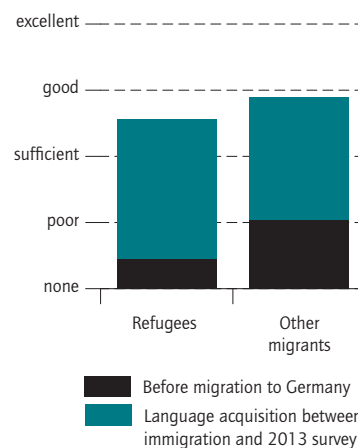
Due to many changes in the legal framework conditions and the respondents’ countries of origin over time, the survey results represent a heterogeneous group. As well, because data are based on information provided by a relatively small sample size—just over 400 refugees—the results are subject to statistical uncertainties. Lastly, the retrospective survey of some biographical data can also lead to distortions. Nonetheless, the deep insight into the language acquisition of past refugees can help identify potential factors that may promote successful language acquisition among current and future refugees.

Refugees arrive with weaker language skills—but nearly catch up with other migrants over time

For the IAB-SOEP Migration Sample, respondents were asked about their German proficiency both prior to immigration and at the time of the survey. Using this information, the language development of two groups—“refugees” and “other migrants”—can be mapped between these two points in time. Before arriving, the German skills of refugees were lower than those of other migrants (Figure 1): most refugees indicated that they

Figure 1

Language proficiency and language acquisition among refugees and other migrants in Germany



¹ Controlling for differences between groups with different durations of stay in Germany.

Source: IAB-SOEP Migration Sample (2013) of SOEP:v31, weighted; estimations by DIW Berlin.

The language proficiency of refugees approached that of other migrants over time

Box 2

Methods

First, the language skills level at two points in time and the corresponding development controlling for length of stay are determined (Figure 1). In addition, the relationships between theoretically influential factors and language acquisition are analyzed both bivariate (Table 1) as well as multivariate (Table 2). The multivariate regression analysis makes it possible to investigate the respective relationships between several individual factors and language development. As well, the influence of all other factors considered relevant and available in the dataset is controlled for, thus reducing distortions resulting from spurious correlations to a certain extent.

In further robustness checks, all individuals for whom no language development was observed as well as those who already had upon arrival an “excellent” knowledge of German—the highest possible language proficiency level—are excluded. As well, a model was estimated in which the language level upon arrival is included in the analysis. These sensitivity analyses

confirmed the findings of the main analysis; the few exceptions are discussed in the respective footnotes.

In cross-sectional analyses, however, certain statistical problems—such as self-selection—cannot be ruled out, which means that questions about causal relationships cannot be answered using the multivariate methods. As well, both the self-assessment of one’s own language skills¹ as well as the retrospective survey can lead to distortions.

Nevertheless, the analysis of the refugees in Germany as a specific immigrant group offers fresh and deep insight into their language acquisition as well as the possibility of identifying corresponding success factors that can help other refugees, now and in the future.

¹ Edele, A., Seuring, J., et al. (2015): Why bother with testing? The validity of immigrants’ self-assessed language proficiency. *Social Science Research*, 52, 99–123.

had absolutely no German skills before moving to Germany, while other migrants reported at least a “poor” language proficiency, on average.

By 2013, of course, the language skills of both groups had improved significantly: on average, refugees and other migrants now described their German skills as “good.” This implies that the German skills of refugees had almost approached the language level of other migrants in a comparable time span, even though refugees started out with no German skills on average. This is confirmed by the multivariate analysis (Table 2, refugees coefficient in column 2).⁷

In principle, the language acquisition of refugees and other migrants is related to their length of stay. This is more apparent in the “other migrants” group (Table 1, column 5). Refugees were able to develop their language skills more strongly than were other migrants, primarily within the first 19 years after arriving in Germany (Table 1, column 6). The results of the multivariate regression analysis, however, show no statistically significant

effects that indicate a differing correlation between language acquisition and the length of stay across groups (Table 2, column 3).

In general, refugees’ pre-immigration German-language skills were poorer compared to those of other migrants. With time, however, this difference virtually disappears—and in fact, the refugees were able to improve their German skills faster than other migrants, on average. It is worth mentioning that no statistically significant differences between the groups were observable regarding a correlation between their language acquisition and their duration of stay in Germany.

Younger refugees learn German better

Apart from duration of stay, the age of the refugees has been confirmed by other studies as an important factor in language acquisition, with the consensus that it is usually easier for younger refugees to learn the language of their host country.⁸ In the present study, this factor was examined based on the IAB-SOEP Migration Sample.

⁷ When language skills of the immigrants upon their arrival in Germany are taken into account, however, no statistically significant differences in language acquisition between the groups are found. The limitations of the survey—such as the small sample size and the fact that respondents were required to provide information about a much earlier time period—could affect the results.

⁸ See, for example: Chiswick, B. R., Miller, P. W. (2001): A model of destination-language acquisition: Application to male immigrants in Canada. *Demography*, 38 (3), 391–409, or Hou, F., Beiser, M. (2006): Learning the Language of a New Country: A Ten-year Study of English Acquisition by South-East Asian Refugees in Canada. *International Migration*, 44 (1), 135–165.

Table 1

Language proficiency and language acquisition among refugees and other migrants in Germany

Bivariate Findings

	German proficiency at immigration			German language acquisition in Germany		
	Refugees	Other migrants	Difference	Refugees	Other migrants	Difference
Duration of stay						
0 to 9 years	-	-	-	1.79	1.46***	-0.33*
10 to 19 years (reference)	-	-	-	2.11	1.85	-0.26**
20 years and more	-	-	-	2.08	2.16***	0.08
Age at immigration						
Under 16 years	1.22	1.78***	0.56***	3.27***	2.76***	-0.51**
16 to 24 years	1.54	2.11***	0.57***	2.28***	1.81***	-0.47***
24 to 44 years	1.49	2.07***	0.58***	1.64	1.57***	-0.07
44 years and older (reference)	1.57	2.45	0.88***	1.34	0.75	-0.59***
Highest educational qualification obtained abroad or later in the German educational system						
No/elementary education abroad (reference)	1.40	1.67	0.27**	1.54	1.46	-0.08
Secondary education abroad	1.53	2.09***	0.56***	1.81**	1.52	-0.29**
Tertiary education abroad	1.84	2.43***	0.59**	1.92	1.47	-0.45**
Later participation in German educational system	1.29	2.11	0.82***	3.13***	2.35***	-0.78***
Participation in German Language Integration Course						
No (reference)	-	-	-	2.04	1.81	-0.23*
Yes	-	-	-	2.09	1.86	-0.23*
Language used with family mainly German						
No (reference)	-	-	-	2.00	1.76	-0.24**
Yes	-	-	-	2.31*	2.1***	-0.21
Language used with friends mainly German						
No (reference)	-	-	-	1.85	1.67	-0.18*
Yes	-	-	-	2.46***	2.14***	-0.32*
Language used at work mainly German						
No (reference)	-	-	-	1.55	1.53	-0.02
Yes	-	-	-	2.30***	2.00***	-0.30***
Not employed	-	-	-	1.82	1.50	-0.32*
Number of respondents (N)	411	2,894		411	2,894	

Significance level: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

The findings in the table are based on self-assessed language proficiency at the time of arrival in Germany and language acquisition up to the point of the survey in 2013. Also shown are results of various t-tests. The comparison across groups is shown in the difference column (* $p \leq 0.05$; ** $p < 0.01$; *** $p < 0.001$). The comparison within the two groups of migrants is shown for each variable in relation to the respective reference group. For refugees who completed secondary education abroad, the results show a significant difference in language acquisition compared to refugees with either completed or no primary elementary education abroad (1.81** vs. 1.54). At the same time, there is a significant difference with respect to other migrants (-0.29**).

Source: IAB-SOEP Migration Sample (2013) of SOEP.v31, weighted; estimations by DIW Berlin.

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As expected, strong differences arise between the age groups both with regard to the German language skills they arrived with as well as their language development (Table 1). For the most part, refugees and other migrants who belonged to a higher age group had better knowledge of German upon arrival. However, younger refugees and other migrants experienced greater improvements in their German skills on average than did older groups. While refugees who arrived in Germany before age 16 increased their language skills from “none” to “good” between their arrival and 2013—that is, an increase of three possible answer categories—the language competence of most refugees aged 44 and over only in-

creased from “poor” to “sufficient”. This pattern is also found among other migrants, but the bivariate analysis suggests a slightly slower language development in each age group.

The results of the multivariate regression analysis, however, show that the differences between refugees and other migrants with regard to their language development over time are not statistically significant (Table 2, column 3), which indicates that a younger age at the time of immigration is beneficial for the language development of refugees and other migrants in a similar manner.

Table 2

Language acquisition among refugees and other migrants in Germany
Multivariate Analysis¹

	Refugees ²	Interaction model ³	
		Main model	Interaction
Group of migrants (reference: other)			
Refugees	-	0.21 *	-
Duration of stay in Germany (reference: 10 to 19 years)			
0 to 9	-0.06	-0.13*	0.07
20 and more	0.03	-0.01	0.04
Age at immigration (reference: 44 years or older)			
Under 16	1.15**	1.46***	-0.36
16 to 24	0.75*	0.80***	-0.08
24 to 44	0.27	0.59***	-0.38
Highest educational qualification obtained abroad or later in the German educational system (reference: no / primary education abroad)			
Secondary education abroad	0.23	0.17*	0.09
Tertiary education abroad	0.54+	0.33**	0.28
Participation in German educational system	0.90***	0.40***	0.57*
Attendance of language courses in Germany	-0.01	0.09	-0.10
Language used with family mainly German	-0.31	0.00	-0.35
Language used with friends mainly German	0.16	0.12	0.04
Language used at work mainly German (reference: no)			
Language used at work mainly German	0.39*	0.27**	0.14
Not employed	0.18	-0.05	0.26
Constant	0.93*	0.62**	0.58**
Adjusted R ²	0.34	0.30	0.30
Number of respondents (N)	411	3,305	

Significance level: + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

¹ OLS with robust standard errors. Dependent variable: language acquisition of refugees and other migrants. Additional control variables in all models: gender, migration background of partner in the household, presence of children below the age of 16 in the household, health restrictions, surroundings of residence (urban/rural), attendance of German classes abroad, region of country of origin, and illiteracy in relation to language of country of origin.

² The first model contains only refugees.

³ Interaction model containing all migrants. Here, each explanatory variable and the constant is interacted with a dummy variable indicating whether the migrant is a refugee or not. The main model therefore contains the results for all other migrants, and the interaction column gives the difference between refugees and other migrants.

Source: IAB-SOEP Migration Sample (2013) of SOEP.v31, weighted; estimations by DIW Berlin.

Refugees with a background in higher education or participation in the German education system experienced more significant improvements in their language skills

According to current research, individuals who have achieved higher levels of education have an easier time acquiring a new language,⁹ and this can also be observed in the data used here.¹⁰ Refugees and other migrants with backgrounds in higher education usually arrive with better German skills (Table 1, columns 1 and 2). As

⁹ For studies on migrants, see Chiswick, B. R., Miller, P. W. (2001), loc. cit., or Dustmann, C., Fabbri, F. (2003): Language proficiency and labour market performance of immigrants in the UK, *The Economic Journal*, 113: 695-717. For a study on refugees, see: Hou, F., Beiser, M. (2006), loc. cit.

¹⁰ The survey solicited data on the highest level of education or training that each respondent had acquired abroad. All respondents who obtained or were in the process of obtaining educational or vocational qualifications in Germany are summarized in another category.

well, better-educated refugees also experienced larger improvements in their language development over time (Table 1, column 4).

For other migrants, the bivariate analysis indicates no statistically significant differences in the average language development patterns associated with their respective educational backgrounds (Table 1, column 5). But the results of the multivariate regression analysis, which takes other factors into account, indicate that a higher level of education goes hand in hand with stronger language development among other migrants (Table 2, column 2). In that respect, the highest level of education from abroad plays a critical role in the language development in the host country for both refugees and other migrants alike.¹¹

¹¹ Since we are unable to differentiate between formal education and actual skills based on the given data, we must assume that refugees with both higher cognitive skills as well as higher levels of education have an easier time learning German.

Previous studies have shown that refugees' participation in the host country's education system facilitates language development.¹² Correspondingly, the German language skills of the sample respondents who were studying or had already studied in Germany significantly improved. This pattern is observable in both the bivariate results (Table 1, columns 4 and 5) as well as in the broader multivariate regression analyses in comparison to individuals who had acquired a primary education (Table 2, columns 1 and 2) or—as demonstrated in an additional model calculation—a secondary education from abroad.

In this respect, obtaining an educational or vocational qualification and/or attending school in Germany was associated with a positive language development for both groups. This is especially true for refugees: if they participated in the German education system, their language skills improved more than did those of other migrants (Table 2, column 3).¹³

Overall, language skills experienced larger improvements among refugees and other immigrants who had acquired a higher education abroad. The same applies to individuals from both groups who were participating or had participated in the German education system.

Refugees' participation in German courses and language development

The language development of refugees and other migrants can also be influenced by support measures in the host country. Political and public discourse in Germany has centered on whether participation in language and integration courses helps promote successful integration.¹⁴ Using the IAB-SOEP migration sample, it was investigated to what extent past participation in a German language course was associated with refugees' language development. It is important to note, however, that it is impossible to differentiate which specific course the respondents participated in—that is, whether it was an integration course or a language course, how long it lasted, and what subjects it covered.¹⁵

¹² Van Tubergen, F. (2010), loc. cit., Hou, F., Beiser, M. (2006), loc. cit., Dustmann, C., Fabbri, F. (2003), loc. cit.

¹³ If refugees who did not improve their German skills are excluded from the analysis (see Box 2), no further statistical significance can be detected. This may indicate that refugees who had acquired good German skills before arriving in Germany may have been more motivated to participate in the German education system after their immigration.

¹⁴ Robert Bosch Stiftung (Hrsg.) (2016) Chancen erkennen – Perspektiven schaffen – Integration ermöglichen. Report from the Robert Bosch Expert Commission to Consider a Realignment of Refugee Policy. Robert Bosch Foundation GmbH, Stuttgart, p. 113 et seqq.

¹⁵ In the past, only foreigners with a residence permit were entitled to partake in integration courses. Such courses comprise both language instruction as well as an orientation—for example, a discussion of the German legal system (see also the Integration Course Ordinance, IntV). It wasn't until October 2015

The bivariate analysis shows that the refugees benefited only slightly from participation in a language or integration course: their skills improved somewhat more on average compared to refugees who hadn't participated in such a course. However, the results of both the bivariate (Table 1, column 4) and multivariate regression analysis (Table 2, column 1) indicate no statistically significant effects. The same is true for other migrants (Table 1, column 5 and Table 2, column 2). It must be noted that the lack of differentiation in the types of courses taken—that is, between integration courses and other offerings—as well as the content and the duration of the courses may have led to the statistical insignificance of these findings. It thus cannot be ruled out that participation in a German language course has a positive impact on refugees and other migrants—especially when the findings of other studies are taken into account.¹⁶

German usage at work associated with language development among refugees

Previous studies have shown that frequent German usage in diverse contexts plays an important role in language acquisition among refugees and other migrants.¹⁷ In this report, three social contexts—family, friends, and the workplace—are examined using the IAB-SOEP Migration Sample.¹⁸

The bivariate analysis indicates that refugees who spoke mostly German with family, friends, or at work were able to improve their German language skills more than those who did not (Table 1, column 4). This finding is most pronounced among refugees who spoke German at work, followed by those who spoke German with friends and lastly, those who spoke it with their families. These findings are observable among other migrants, but not to the same extent (Table 1, column 5). The multivariate regression analyses confirm that the predominant use of German at work is statistically significantly associated with

that asylum seekers and tolerated persons were allowed to participate (§ 44 IV Residence Act), though they are not entitled to admission to such a course. The Federal Office for Migration and Refugees leads integration courses in cooperation with foreigners' registration offices, the Federal Administration Office, municipalities, migration services, and job seekers' assistance programs. There are also a number of other language courses on offer within different federal states and municipalities, in addition to those given by welfare organizations and volunteers.

¹⁶ Van Tubergen, F. (2010), loc. cit., Van Tubergen, F., Wierenga, M. (2011): The language acquisition of male immigrants in a multilingual destination: Turks and Moroccans in Belgium. *Journal of Ethnic and Migration Studies*, 37(7), 1039–1057, Hou, F., Beiser, M. (2006), loc. cit. In recent studies, however, no statistically significant effects were observable.

¹⁷ Van Tubergen, F. (2010), loc. cit., Chiswick, B. R., Miller, P. W. (2001), loc. cit., Kristen, C., Mühlau, P., et al. (2016), loc. cit.

¹⁸ The survey took into account whether a respondent speaks mostly German with his or her family members, with friends, or at work. The other multivariate regression analyses factor in whether a respondent is employed, has children under 16, or has a partner (see footnote, Table 2).

positive language development among refugees and other migrants¹⁹—but when it comes to speaking German with family or friends, no statistically significant positive effect is observable (Table 2, columns 1 and 2).²⁰

Overall, the use of German was positively correlated with language development among refugees in Germany, and more frequent use of German—especially in the workplace—was associated with better knowledge of the language.

Conclusion

With the exception of highly educated or older refugees, the majority of the refugee respondents to the 2013 IAB-SOEP Migration Sample had no German language skills upon their arrival in Germany. This stood in contrast to non-refugee migrants, who reported better language skills upon arrival. Over time, however, the refugees' language skills improved to a larger extent than did those of other migrants, and by the time the survey was given—roughly 18 years after the mid-'90s influx—the refugees' German skills almost matched those of the non-refugee migrants. Younger refugees and those who had already obtained a higher education in their country of origin saw the biggest improvements in their German skills. As well, a longer duration of stay and a predominant usage of German at the workplace were positively associated with better language skills; these findings were also observed in the responses of other migrants. Note that the findings must be viewed in light of the fact that the survey has certain limitations—as previously discussed—and cannot encompass every detail, such as possible self-selection among particularly motivated refugees or the fact that some of them had to learn German for professional reasons.

19 Refugees may, however, obtain employment under certain circumstances. This is usually dependent on their residence permit (§4 para. 3 of the Residence Act), while asylum applicants without a permit are only allowed to obtain employment in exceptional cases (§61 of the Asylum Act). In the past, refugees' access to the German labor market was more restrictively regulated. See in this issue: Salikutluk, Z., Giesecke, J., et al. (2016): Refugees entered the labor market later than other migrants. Therefore, the refugees who were legally working in Germany may have been an especially positively selected group, and this may lead to distortions in the present results.

20 It must be kept in mind that in order for migrants and refugees to have the opportunity to use German with their friends and family, these social contacts must also speak the language. If only the individuals who indicated improvements in their language skills are taken into account, there exists a statistically significantly positive correlation between the use of German with friends and family and language development.

The findings related to the language skills and acquisition of Germany's refugee population help to identify the areas with the most potential for developing political measures related to integration, education, and labor market policy. Firstly, participating in the German education system is positively correlated with refugees' language development, and thus access to schools and vocational training should be provided as soon as possible after the refugees' arrival in Germany.

Secondly, the actual use of German while in Germany makes a difference—especially when it is spoken at the workplace. Since the legal requirements for access to the labor market are dependent on special regulations or the refugees' respective residence permits, such processes could be expedited to facilitate a correspondingly swift entry.

Thirdly, even though the results from the present study did not indicate any statistically significant effects of German language courses on refugees' language development, studies from other countries have shown a positive effect.²¹ Refugees themselves,²² as well as the job placement officers who supervise and advise them,²³ emphasize the importance of such language courses. Insofar, the limitations of this study should be taken into consideration, since these data do not provide information about what kinds of German courses the respondents had taken. The extent to which participation in integration and other language courses promotes language development, and whether certain kinds of such courses are especially helpful, can be analyzed in the future using the IAB-BAMF-SOEP refugee survey conducted by the Institute for Employment Research (Institut für Arbeitsmarkt- und Berufsforschung), the Federal Office for Migration and Refugees (Bundesamt für Migration und Flüchtlinge), and the German Socio-Economic Panel Sozio-ökonomisches Panel.²⁴

21 Van Tubergen, F. (2010), loc. cit., Chiswick, B. R., Miller, P. W. (2001), loc. cit.

22 Brücker, H., Fendel, T., et al. (2016), loc. cit.

23 Daumann, V., Dietz, M., et al. (2015): Early Intervention – Modellprojekt zur frühzeitigen Arbeitsmarktintegration von Asylbewerberinnen und Asylbewerber. Results of accompanying qualitative research. IAB research report, 3/2015, Nürnberg: 13.

24 The IAB-BAMF-SOEP refugee sample was drawn from the central registry of foreigners, and covers refugees who came to Germany between 2013 and 2015 and have already filed for asylum. The sample comprises roughly 2,000 adult refugees who are being surveyed for the first time in 2016.

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Refugees entered the labor market later than other migrants

By Zerrin Salikutluk, Johannes Giesecke, and Martin Kroh

It has taken longer for refugees who have been living in Germany for some time, particularly those who arrived between 1990 and 2010, to take up gainful employment than other migrants. These findings are based on data from the Socio-Economic Panel (SOEP) and the IAB-SOEP Migration Sample. In addition, these refugees show a higher rate of unemployment and earn lower incomes by comparison even years after arriving in Germany. Refugees from different regions also show a tendency to work in certain occupations and in jobs that are below their skill levels. These findings indicate the importance of targeted educational and labor market measures to facilitate the best possible integration of refugees into the German labor market—and thereby also into German society.

The entry of refugees as well as other migrants into the German labor market is influenced by a range of factors. The other reports in this issue of *DIW Economic Bulletin* show, for example, that the level of formal qualifications among refugees is lower than that of other migrants. At the same time, qualifications obtained by refugees abroad are less likely to be recognized than those of other migrants¹. Furthermore, refugees are more likely to find a job through informal channels². Seeking refuge is different from other forms of migration such as labor migration because it is less planned and prepared and therefore refugees have, for instance, poorer language skills when they arrive in the host countries³. As a result, it can be that refugees are less likely to be as well integrated into the labor market as other migrants.

Besides these factors, legal access to the labor market also determines refugees' level of integration. A prerequisite for the immigration of non-EU citizens via the "EU Blue Card" is a specific offer of employment and therefore immediate labor market inclusion. EU citizens can also take up employment in Germany immediately or become self-employed due to laws governing freedom of movement. Asylum seekers, however, are excluded from immediately entering the labor market. For asylum seekers and persons with leave to remain in Germany (*Duldung*), the process of acquiring a work permit has undergone numerous changes since the 1970s, at times involving long waiting periods and prohibitions on working.⁴

Currently, access to the labor market is determined by residency status which, in turn, is dependent on the status of the asylum application.⁵ In very simple terms, dur-

¹ See report by Liebau/Salikutluk in this issue of *DIW Economic Bulletin*.

² See report by Eisnecker/Schacht in this issue of *DIW Economic Bulletin*.

³ See report by Liebau/Schacht in this issue of *DIW Economic Bulletin*.

⁴ For an overview, see Wolfgang Seifert, *Geschlossene Grenzen, offene Gesellschaften? Migrations- und Integrationsprozesse in westlichen Industrienationen* (Frankfurt/New York: 2000).

⁵ In addition to the duration of the asylum procedure after an application is submitted, which often takes many months, the waiting period until an application can be submitted is a problem for asylum seekers wishing to enter the labor market quickly. Asylum procedures for many asylum seekers who came to Germany in 2015 had still not been formally commenced by mid-2016.

Box

Definitions

Individuals are subdivided into three categories defined by the International Labour Organization (ILO): *employed, unemployed, and economically inactive persons*. According to these definitions, an employed person is one aged between 15 and 74 who has had paid employment in the last seven days. This definition does not depend on the existence of an employment contract and therefore also includes people in irregular employment. Unemployed persons are those aged between 15 and 74 who stated in the survey that they were currently looking for a job and were available for work even at short notice. All remaining people of working age are categorized as economically inactive. This category consists mainly of people who are (1) neither in work nor looking for work, (2) still in

education or vocational training, (3) homemakers, or (4) on parental leave.

The group of economically inactive persons is not considered for the calculation of the *unemployment rate*. The unemployment rate is the share of unemployed in the total workforce.

A job (see Table 1) is counted as *adequate to qualifications* one in which an individual's educational and professional qualifications meet the stated requirements of their employment. Accordingly, those who stated that their level of education was higher than that required to do their job are considered over-qualified in the present study.

ing the ongoing process (temporary residence permit) and when the application has been rejected but that person has leave to remain in Germany (*Duldung*), the work permit of people from unsafe countries depends on the length of their stay and authorization from the immigration office. The latter is subject to a priority check (*Vorangprüfung*) by the Federal Employment Agency which reviews the impact on the labor market of employing a refugee and ensures that the position could not be filled by higher-priority job seekers, such as a citizen of Germany or another EU country. In a comparability test, the working conditions of the specific job are then assessed to ensure that the conditions are no different than for equivalent positions held by German citizens.⁶ Occupations in certain sectors, such as care or technical professions, that appear on the Federal Employment Agency's positive list do not require the individual check, as is the case with vocational training or an internship. However, in regions with strong economies, the priority check has (temporarily) been suspended for the next three years in accordance with recently passed provisions contained in the Integration Act.

Labor market access (including self-employment) ultimately becomes unrestricted when, in the process of granting temporary residency, an application for asylum or refugee status is approved. It is therefore primarily the duration of stay and outcome of the asylum application that are essential in determining whether and when refugees might enter the labor market.

⁶ German Bundestag, *Entwurf der Verordnung zum Integrationsgesetz*, German Bundesrat printed paper no. 285/16 (May 26, 2016).

Previous research shows that migrants in Germany are generally in a worse position on the labor market than those without a migrant background. They have fewer opportunities to obtain skilled jobs,⁷ lower incomes,⁸ and are at greater risk of becoming unemployed.⁹ Since refugees have a relatively low level of skills and access to the German labor market is delayed due to legal processes, these risks are particularly relevant to them.

Refugees take up gainful employment later than other migrants

Figures 1 and 2 show the time it takes for men and women to obtain their first full- or part-time job after arriving in Germany. The study only considers individuals aged between 18 and 55 upon arrival.¹⁰ The maximum observation period therefore distinguishes between recent arrivals and those who have already been Germany for some time. For this reason, we have restricted our graph to a maximum of ten years after migration.

⁷ Frank Kalter, "Ethnische Ungleichheit auf dem Arbeitsmarkt," in Martin Abraham and Thomas Hinz, eds., *Arbeitsmarktsoziologie* (Wiesbaden: 2005), 303-332.

⁸ A. Constant and D. S. Massey, "Self-selection, earnings, and out-migration: A longitudinal study of immigrants to Germany," *Journal of Population Economics* 16, no. 4 (2003): 631-653; F. Büchel and J. R. Frick, "Immigrants in the UK and in West Germany—Relative income position, income portfolio, and redistribution effects," *Journal of Population Economics* 17, no. 3 (2004): 553-581.

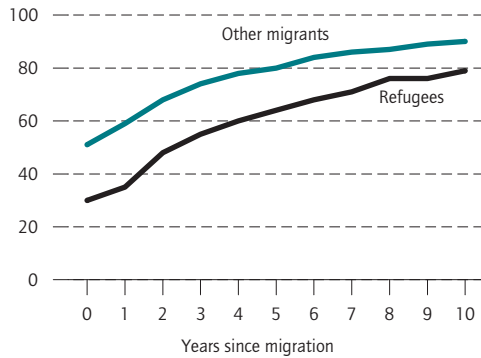
⁹ I. Kogan, "Last Hired, First Fired? The Unemployment Dynamics of Male Immigrants in Germany," *European Sociological Review* 20, no. 5 (2004): 445-461.

¹⁰ In the past, there were different requirements for awarding work permits to refugees, which could not be taken into account in the following analysis.

Figure 1

Labor market entry among men since year of migration

Cumulative probability (hazard rates) of entering employment¹



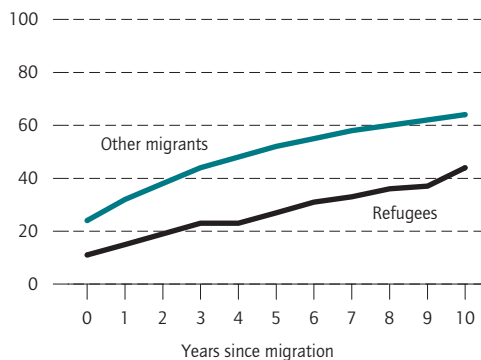
Source: SOEP.v31, weighted; estimations by DIW Berlin.

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Figure 2

Labor market entry among women since year of migration

Cumulative probability (hazard rates) of entering employment¹



¹ Based on retrospective annual (calendar) data. Under examination is the first year of full- or part-time employment in Germany. The analysis is limited to individuals who migrated between the ages of 18 and 55. The finding of delayed labor market entry among refugees also holds when controlling for the effects of the year of migration and region of the country of origin (Cox regressions).

Source: SOEP.v31, weighted; estimations by DIW Berlin.

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On average, refugees enter the labor market later than other migrants.

Around half of men in the group of other migrants (e.g., EU migrants, labor migrants, repatriates, family migrants) is employed in the first year after migration (see Figure 1), while this share is smaller among male refu-

gees (30 percent). This could be due to legal restrictions on access to the labor market in the first year after arrival in Germany or due to other factors mentioned above, such as their lower qualification levels and their tendency to use informal job search methods.

In both groups, the share of those taking up employment grows steadily over the subsequent years. In the fifth year after arriving, around 80 percent of other migrants have managed to enter the labor market, which equates to an increase compared to the first year of around 30 percentage points. In the tenth year, this figure even rises to 90 percent of males who came to Germany as “other migrants.”

Male refugees have been able, to a certain extent, to reduce the gap between them and other male migrants: around two-thirds of all male refugees in the observation group arriving in Germany between the age of 18 and 55 were in employment by the fifth year after entry; after ten years, this figure was 80 percent.

The time it took female migrants in Germany to enter the labor market was considerably longer (see Figure 2). Almost ten percent of female refugees were employed in the first year after entry but one in four of other female migrants. Over half of other female migrants had found a job by the fifth year and nearly two-thirds were in employment by the tenth year. For female refugees, however, this share is still below 50 percent even after ten years. Hence there is evidence of a growing disparity between female refugees and other female migrants.¹¹

Employment levels among refugees lower than among migrants even years after arrival

At the time of the survey in 2013, an average of 20 years after entry into Germany, 59 percent of 15-to-74 year olds surveyed in the sample, who had entered as asylum seekers had a job. The corresponding figure was 67 percent for other migrants and 68 percent for non-migrants (see Figure 3).¹² This difference is solely due to the fact that a comparatively large number of refugees are unemployed; for them, the corresponding figure was 16 percent, for other migrants it was eight percent, and for non-migrants it was four percent.¹³ In contrast, the share of economically inactive persons is similar in all three groups (ap-

¹¹ The gap between female refugees and other female migrants varies strongly by the region of origin.

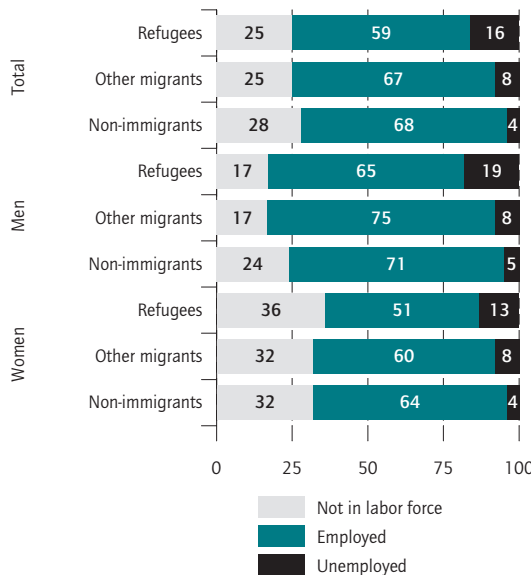
¹² In all groups, the majority of the workforce is in full-time employment (63 percent of refugees, 65 percent of other immigrants, and 69 percent of those born in Germany).

¹³ The difference between refugees and the other two groups is statistically significant when comparing both the shares of employment and unemployment at the one-percent level.

Figure 3

**Labor market status in 2013
by country of origin and gender**

In percent



Source: SOEP:v31, weighted; estimations by DIW Berlin.

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Unemployment is higher among refugees than among other migrants.

proximately every fourth respondent). The unemployment rate among refugees is 21 percent and ten percent among other migrants.

In general, the same patterns are evident if we conduct a gender-specific analysis. Approximately one in three women across all the groups is economically inactive. The share of unemployed is also highest among female refugees—13 percent of all female refugees were classified as unemployed in 2013.

The share of economically inactive persons among male migrants (17 percent) is below that of men born in Germany (24 percent) in the sample used here. The share of employed persons in the group of other migrants (75 percent) is similar to that of men born in Germany (71 percent). Lastly, as with female refugees, the share of unemployed among male refugees is also the highest.

Migrants often in jobs below their education level

Migrants who have acquired their education and professional training mainly in their country of origin must expect that these qualifications will only be accepted in the

German labor market to a limited degree. This is particularly true if no certificates are available for these qualifications or if they are not recognized. Since the recognition procedure for foreign qualifications has, in the past, differed between the migrant groups depending on the country of origin, it can be assumed that some groups are more likely to have the formal qualifications they gained abroad successfully recognized in Germany. Moreover, there is evidence that refugees have to overcome higher institutional hurdles than other migrants in the recognition process¹⁴.

This suggests that a lot of migrants in Germany are employed in a job that is below their (vocational) qualifications. Table 1 confirms this assumption: Of those workers born in Germany, almost 20 percent are employed in a job that they themselves state is below their skill level. The corresponding figure for refugees is 26 percent and for other migrants it is 30 percent. Thus, the assumption that there is a higher over-qualification rate among refugees cannot be confirmed.

The phenomenon of over-qualification affects migrants differently depending on their region of origin. Especially migrants from the successor states of the former Soviet Union appear to have difficulties in finding jobs that meet their qualifications. Every third person in this group is employed below their skill level; more than half of the refugees surveyed from this region are affected.¹⁵

When looking at the share of people who are employed below their education level, it is worth noting that over-qualification can only apply to individuals who have actually undergone vocational and educational training. By definition, people with no qualifications cannot be over-qualified. However, if we only consider those individuals (not shown here) that have at least medium-level qualifications, the reported findings are confirmed: Overall, migrants are at greater risk of being employed below their skill level and this is particularly true for individuals from the former Soviet Union.¹⁶

Industries and companies in which refugees work

One possible explanation for migrants' greater risk of over-qualification might be found in the structure and regulation of the German labor market (see Table 2). Some occupational segments are more regulated than

¹⁴ See report by Liebau/Salikutluk in this issue of DIW Economic Bulletin.
¹⁵ Due to the small sample size of the group of refugees from the former Soviet Union, this finding has a high degree of statistical uncertainty however.
¹⁶ See report by Liebau/Salikutluk in this issue of DIW Economic Bulletin.

Table 1

Employment below qualifications in 2013 by status and region of origin

In percent

	Refugees	Other migrants	Non-immigrants
Total (N)	282	2,872	14,404
Adequate to qualifications	73	70	80**
Overqualified	27	30	20**
From Southeast Europe (N)	127	397	
Adequate to qualifications	78	74	
Overqualified	22	26	
From Post-Soviet countries (N)	47	1,049	
Adequate to qualifications	47	67**	
Overqualified	53	33**	
From Arab/Muslim countries (N)	73	76	
Adequate to qualifications	81	71	
Overqualified	19	29	

Differences between refugees and other groups *** significant at the 1 percent level, ** significant at the 5 percent level, * significant at the 10 percent level; case numbers below 50 are in italics.

Source: SOEP.v31, weighted; estimations by DIW Berlin.

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Refugees and other migrants are more often employed below their education levels—especially refugees from Post-Soviet countries.

others, such as the civil service, making it more difficult for migrants to access these sectors.¹⁷

Manufacturing industries are an important economic sector for immigrants, employing 31 percent of refugees and 26 percent of other migrants. In 2013, a relatively high proportion of refugees worked in the hospitality industry (16 percent), which is considerably more than corresponding shares among other migrants or non-migrants (eight and three percent respectively). Another difference between refugees and the other two groups considered here is that they are relatively rarely employed in the health sector (seven percent compared to 13 and 14 percent respectively). Although in absolute terms, the sector “other services” plays an important role in all groups, its relative importance is greater for those born in Germany (37 percent) than for refugees (19 percent) working in the service industry.

Refugees are less likely to be employed in the civil service (9 percent) than other migrants (17 percent) and than non-migrants (26 percent). The share of self-em-

¹⁷ Whether or not professions included in the positive list really are more frequently taken up by refugees cannot be determined from the available data because the list was created in 2013 under new employment regulations.

Table 2

Refugees and other migrants by economic sector, public sector, and self-employment in 2013

In percent

	Refugees	Other migrants	Non-immigrants
Total cases (N)	293	2,906	14,796
Industry, manufacturing	31	26*	20***
Construction	7	5	5
Trade	10	10	12
Hospitality	16	8***	3***
Other services	19	28**	37***
Health	7	13**	14**
Other	10	10	9
Total cases (N)	271	2,702	13,641
In public sector	9	17**	27***
Total cases (N)	297	2,913	14,839
Self-employed	8	9	10

Differences between refugees and other groups *** significant at the 1 percent level, ** significant at the 5 percent level, * significant at the 10 percent level; case numbers below 50 are in italics.

Source: SOEP.v31, weighted; estimations by DIW Berlin.

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Refugees are employed in hotels and restaurants at a higher rate than other migrants and at a lower rate in service occupations.

ployed in all three groups, however, is very similar (between eight and ten percent).

Finally, Table 3 compares the sizes of companies employing workers in 2013. While people born in Germany and other migrants are relatively evenly distributed among small, medium, and large enterprises (see Table 3), the refugees surveyed are mainly employed at smaller companies with fewer than 20 employees (41 percent).

Thus, small businesses and the manufacturing and hospitality industries in particular seem to play an important role for the labor market integration of refugees who came to Germany between 1990 and 2010.

Refugees earn less than other migrants

An obvious consequence of the employment structure for refugees is lower earnings compared to other groups. Table 4 shows average gross hourly wages, calculated according to actual time worked, and gross monthly income. On average, refugees generally earn less, regardless which of the two indicators is considered. In 2013, refugees earned an average gross hourly wage of around 12 euros. Other migrants did slightly better with an average hourly wage of around 15 euros, whereas non-mi-

Table 3

Refugees and other migrants by company size categories 2013

In percent

	Refugees	Other migrants	Non-immigrants
Total cases (N)	264	2,636	13,981
Under 20 employees	41	28***	27***
20 to 199 employees	26	28	27
200 to 1,999 employees	15	20*	21**
2,000 or more employees	18	24*	25**

Differences between refugees and other groups *** significant at the 1 percent level, ** significant at the 5 percent level, * significant at the 10 percent level; case numbers below 50 are in italics.

Source: SOEP.v31, weighted; estimations by DIW Berlin.

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A large percentage of refugees work in smaller companies.

grants earned an average hourly wage of around 17 euros. As a result, on average, refugees earned only 70 percent of the hourly rate of people born in Germany. In monthly terms, this is an average net income for refugees of around 1,630 euros which is around 500 euros less than the average net income of other migrants, and around 950 euros less than that of people born in Germany.

Conclusion

The rapid integration of refugees has become a key sociopolitical issue in the wake of recent migration to Germany. The analysis of longitudinal data from the Socio-Economic Panel (SOEP) and from the IAB-SOEP Migration Sample, which primarily focused on those asylum seekers arriving in Germany in the 1990s, shows that refugees used to take longer than other migrants to establish themselves in the German labor market.

Consequently, the planned Integration Act aimed specifically at rapidly opening up the labor market for refugees is to be welcomed. In particular, the suspension of priority checks in regions with low unemployment rates should speed up the labor market entry process of refugees.

Labor market policy measures such as the creation of voluntary jobs for asylum-seekers and those with leave to remain in Germany (*Duldung*) during the ongoing asylum process can promote integration into working life.¹⁸ However, opportunities for rapid employment do not necessarily guarantee successful integration into the labor

¹⁸ Voluntary job opportunities are similar to one-euro jobs but pay 80 cents.

Table 4

Average gross hourly wages and gross monthly income 2013

In euros

	Refugees	Other migrants	Non-immigrants
Total cases (N)	293	2,873	14,672
Gross hourly wages ¹	11.8	14.8**	16.6***
Gross monthly income	1,632	2,147***	2,597***

Differences between refugees and other groups *** significant at the 1 percent level, ** significant at the 5 percent level, * significant at the 10 percent level; case numbers below 50 are in italics.

¹ Based on the actual and not the contracted working hours.

Source: SOEP.v31, weighted; estimations by DIW Berlin.

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Refugees have the lowest average income.

market. Job prospects for refugees may be unfavorable even if legislation allows them to swiftly enter employment. In particular, integration into the labor market through measures such as voluntary jobs carries the risk of refugees remaining in the low-wage sector in the long term. Conversely, the negative effects associated with a job opportunity or (long-term) unemployment are offset by the positive impact of these labor measures on refugees. Integrating them into the labor market can, for example, improve their language skills, help them make contact with the native population, and prevent any loss in working capacity.

In general, less favorable labor market positioning might also be caused by uncertainty on the part of the refugees and employers. The willingness to take up employment, for example by investing in skills training, might be lower among those whose residency status is (at least temporarily) uncertain than among those who have the prospect of remaining in Germany. We would therefore advocate a quick decision on residency status.

Moreover, to the government should provide employers with comprehensive information about support options. The findings shown here seem to suggest that smaller companies in particular are bearing the responsibility of the higher recruitment costs and more intensive supervision requirements of hiring refugees. The use of government funding, for example through integration grants, can lower barriers to recruiting refugees and relieve employers of high training costs.

Further support measures such as attending language courses and better recognition of foreign qualifications

are key factors in improving refugees' prospects of obtaining skilled work. The high share of people in employment that does not match their qualifications shows that action is still needed here to fully unlock the potential of migrants and give them opportunities to work in jobs for which they are qualified. The problem of unsuitable employment was countered in part by the Recognition Act 2012 (*Gesetz zur Verbesserung der Feststellung und Anerkennung im Ausland erworbener Berufsqualifikationen*), which is why we can expect the risk of over-qualification for new migrants to be lower than for migrants in the past. Equally, we recommend developing specific measures to encourage female refugees to join the labor market, by expanding day care facilities for children for instance.¹⁹ Although compared to men, women are

sometimes better qualified,²⁰ they seem to have particular difficulty finding employment.

With the introduction of the new Integration Act, the granting of a residence permit is linked to the individual's language skills and ability to support themselves and is issued (depending on language skills) after three years (level C1) or after five years (level A2). The fact that the right to remain is linked to the progress of integration provides refugees with powerful incentives to invest in language skills and take up employment as soon as possible. At the same time, efforts to integrate refugees could have a positive impact on their intention to remain in Germany. This makes the successful integration of refugees into the German labor market, in the long run, even more important.

19 See report by Spieß et al. in this issue of DIW Economic Bulletin.

20 See report by Liebau/Salikutluk in this issue of DIW Economic Bulletin.

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JEL: J01, J15, J6

Half of the refugees in Germany found their first job through social contacts

By Philipp Eisnecker and Diana Schacht

In Germany, the majority of people tend to find work through friends, acquaintances, and relatives when they first enter the labor market or switch jobs. The same applies to immigrants and their offspring. Integrating refugees into the labor market is considered crucial to their overall integration into society, yet little is known about how they land their first jobs. The present paper attempts to bridge this gap by analyzing IAB-SOEP Migration Sample data on two reference groups comprised of individuals that came to Germany for different reasons: labor migrants and family migrants.

The analyses show that roughly half of the refugees found their first job through friends, relatives, or acquaintances. Formal channels such as job advertisements and the Federal Employment Agency also played a key role. Refugees who found employment through personal contacts were generally less likely to have any knowledge of German and more likely to have had contacts in Germany prior to immigration. The findings also show that refugees who acquired work through informal channels found their first job faster and were more likely to work full-time compared to those who found their first job through formal channels.

The integration of immigrants into the labor market of their host country is considered to be of critical importance for successful integration.¹ Employment allows them to be financially independent, benefit from daily interaction with colleagues, and integrate into other areas of society. Yet there are very few studies to date examining how refugees find their first job and what kinds of consequences their job-acquiring methods have.²

The available literature shows that at the turn of the millennium, roughly half of all immigrants found their first job in Germany through social networks: for instance, family members, friends, or acquaintances.³ Those with higher levels of education were less likely to resort to these informal means of finding work, relying more on formal channels such as the Federal Employment Agency or job advertisements.⁴ The IAB-SOEP Migration Sample⁵ from 2013 is used to examine whether the same applies to refugees, and how the full-time employment rates and average length of time before entering the labor market differ between those who found work through formal and informal channels. For this purpose, refugees are compared with labor migrants and family migrants (see box).

¹ See, for example, Organisation for Economic Co-operation and Development (OECD), *Die Arbeitsmarktintegration von Zuwanderern in Deutschland* (2005) or Research Group of the Federal Office for Migration and Refugees (BAMF), "Migranten am Arbeitsmarkt in Deutschland," *Working Paper* 36 (2011).

² For a study from the Netherlands, see F. van Tubergen, "Job Search Methods of Refugees in the Netherlands: Determinants and Consequences," *Journal of Immigrant and Refugee Studies* 9(2) (2011): 179-195.

³ A. Drever and O. Hoffmeister, "Immigrants and Social Networks in a Job-Scarce Environment: The Case of Germany," *International Migration Review* 42(2) (2008): 425-448. A. Drever and K. Spieß, "Netzwerke sind bei der Stellensfindung von Migranten bedeutend," *DIW Weekly Report*, no. 22 (2006). Individuals without migrant backgrounds were also more likely to find employment in Germany through social networks than they were through other channels; see K. Brenke and K. Zimmermann, "Erfolgreiche Arbeitssuche weiterhin meist über informelle Kontakte und Anzeigen," *DIW Weekly Report*, no. 20 (2007).

⁴ H. Brücker, E. Liebau et al., "Anerkannte Abschlüsse und Deutschkenntnisse lohnen sich," *DIW Weekly Report*, no. 43 (2014).

⁵ H. Brücker, M. Kroh, et al., "The New IAB-SOEP Migration Sample: An Introduction into the Methodology and the Contents," *SOEP Survey Papers* 216 (2014).

Three limitations of the present study should be noted. First, immigrants in the IAB-SOEP Migration Sample were surveyed in 2013 after already having lived in Germany for an average of 17 years,⁶ and thus it is not possible to draw direct conclusions about refugees who came to Germany over the course of the past two years.

Second, only 283 Germany-employed refugees were surveyed. This means that the findings reported here have a high degree of statistical uncertainty. The 95-percent confidence intervals of the findings are given in the tables and figures below to illustrate this uncertainty.⁷ In addition, the study investigates whether the differences between the groups are statistically significant (t-test). Finally, the small sample size means it is not possible to break the refugee sample down into narrower groups—for instance, by country of origin or gender (see box).

Half of refugees found their first job through social networks

Participants in the 2013 IAB-SOEP Migration Sample were asked how they found their first job in Germany. Here, respondents could indicate multiple methods for finding a job: for instance, if they found a job both with the help of a family member as well as through the Federal Employment Agency. Only between one and six percent of the respondents⁸ gave this kind of multiple answer—normally, only one job-search method was used successfully. The analyses do not include self-employed persons or those who had never been employed in Germany.

Around half of the refugees surveyed, i.e., between 47 and 59 percent, found their first job through family members, friends, or acquaintances (see Table 1). At 56 to 64 percent and 60 to 66 percent, respectively, labor migrants and family migrants were significantly more likely to have found a job through informal means than were refugees. It should be noted that between four and eight percent of the labor migrants had already found employment in Germany through existing business connections before they immigrated; understandably, it was rare for refugees to find work this way.

Between 37 and 49 percent of the refugees surveyed found their first job in Germany through formal chan-

⁶ The average length of stay of the respondents in the present study is slightly longer than in the other reports in this issue of *DIW Economic Bulletin*.

⁷ These can be interpreted as follows: if a large number of samples were drawn under identical conditions, 95 percent of the estimated confidence intervals would contain the true value. Hence a large confidence interval indicates an uncertain estimate; conversely, a small confidence interval indicates a more reliable one.

⁸ The two values denote the upper and lower limits of the confidence interval, which reflects the uncertainty of the data; see also footnote 7.

Box

Data basis and observation group

Data from the IAB-SOEP Migration Sample from 2013 (v31) were used for the analyses in the present issue of *DIW Economic Bulletin*. The survey was conducted by the Institute for Employment Research (IAB) and the Socio-Economic Panel (SOEP) study and includes information on immigrants and their descendants in Germany.¹

The present study analyses information on the job acquiring method of respondents in Germany. All respondents who were not born in Germany were asked this question. The self-employed and individuals who have never been in employment in Germany were not included in the analysis. Overall, no statements can be made about the job search but only about how respondents successfully found jobs.²

Also, only certain groups of migrants are studied: 283 respondents came to Germany as asylum-seekers or refugees, 557 labor migrants came as jobseekers or already had a firm job offer before immigration and 958 respondents were family migrants, i.e., spouses, children, or other family members. It should be noted that these types of immigration do not necessarily correspond to the legal entry status. Furthermore, it should be taken into account for the following group comparisons that refugees attempting to integrate into the labor market faced legal obstacles other immigrants—particularly those from the European Union—mostly did not encounter.³

¹ See also H. Brücker, M. Kroh, et al., "The New IAB-SOEP Migration Sample: An Introduction into the Methodology and the Contents," *SOEP Survey Papers* 216 (2014).

² Access to the German labor market for recognized refugees and those granted asylum is dependent on their residence permit (Section 4, para. 3 of the German Residence Act (AufenthG)). In exceptional circumstances, asylum-seekers may also be employed (Section 61 of the German Asylum Procedure Act (AsylG)). For more information about the job search methods used by immigrants in Germany, see, for example, Nivorozhkin, A., Romeu Gordo, L. et al. (2006) "Arbeits-suche von Migranten. Deutschkenntnisse beeinflussen Suchintensität und Suchwege," *IAB Briefly report*, no. 25 (2006).

³ For a more detailed account, see Z. Salikutluk, J. Giesecke, et al., (2016) "Refugees entered the labor market later than other migrants" *DIW Economic Bulletin*, no. 35 (2016).

nels. Here, the Federal Employment Agency and the Employment Office played a role for seven to 15 percent of the refugees surveyed; private employment agencies for seven to 14 percent; and direct applications in response to newspaper job advertisements for nine to 16 percent.

Table

Job acquisition methods of refugees and other migrants¹

In percent

	Refugees		Labor migrants		Family migrants	
		95% CI		95% CI		95% CI
Formal channels only	43	37-49	38	34-42	36	33-39
Through the Federal Employment Agency/ Employment Office (Bundesagentur für Arbeit/ Arbeitsamt)	11	7-15	8	6-11	11	9-13
Through an employment office/agency in my home country	4	2-6	2	1-4	1	0-2
Through an employment agency for foreigners	4	1-6	5	3-7	1	0-1
Through a private job agency	11	7-14	5	4-7	5	3-6
Through a job advertisement in the newspaper	12	9-16	10	8-13	14	12-16
Through a job advertisement on the Internet	2	0-3	6	4-8	5	3-6
Informal channels only	53	47-59	60	56-64	63	60-66
Through friends, acquaintances, relatives	53	47-59	55	50-59	62	59-65
Through business relationships in Germany	0	0-0	6	4-8	1	0-1
Only multiple means (total)	4	1-6	2	1-3	1	1-2
Also formal channels	3	1-6	1	0-2	1	1-2
Informal channels only	0	0-1	0	0-1	0	0-0
N	283		557		958	

¹ Results on the first position held by migrants who have already been working in Germany.

Question: What about before you moved to Germany: How did you find your first job?

Source: IAB-SOEP Migration Sample 2013, wave 1; own calculations, N = 1,798, weighted (v31).

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Around half of all refugees found their first job in Germany through friends, acquaintances or relatives.

Refugees and other immigrants rarely found their first job in Germany through other formal channels, including employment offices and -agencies in their home countries, special employment services for foreigners, and online job advertisements.^{9,10}

Refugees who found a job through informal channels often had social ties in Germany before immigrating

Theoretically, the methods refugees use to land a job in Germany depends on whether jobseekers have access to social networks; the composition of these networks; and whether these networks can be used to find work.¹¹ It is assumed that a jobseeker is more likely to look for and find a job through social networks if his or her network is bigger.¹² Empirical evidence for this assumption

already exists for immigrants in Germany.¹³ In the IAB-SOEP Migration Sample, immigrants were asked whether they received help from relatives or friends who were already living in Germany. This type of social ties might also have affected the refugees' actual job acquisition.

The pattern turned out as expected for all three immigrants groups (see Figure 1): the refugees and other immigrants who already had social ties in Germany prior to immigration found their first jobs more often through informal channels than they did through formal channels. These differences are particularly pronounced for labor migrants and family migrants. Conversely, the difference is smaller for refugees and is statistically only weakly significant. Between 51 and 68 percent of the refugees who had social ties in Germany before immigrating found a job through informal channels.

Finding work through social networks: no differences between refugees with higher and lower levels of education

The fact that refugees were slightly more likely to have found their first job in Germany through formal channels than were other immigrants could theoretically have

⁹ Searching for jobs online was most probably not as common for the respondents in this sample – most of whom came to Germany in the 1990s – than it is today; for more on this, see Pischner et al., "Arbeitsvermittlung durch das Arbeitsamt: Reform des Berichtsystems dringend erforderlich," *DIW Weekly Report*, no. 9 (2002): 150.

¹⁰ A further distinction between labor migrants who had already found their first job before immigrating (job confirmation) and those who began searching for work once they were already in Germany (job search) shows certain differences (analysis available on request).

¹¹ N. Lin, *Social Capital: A Theory of Social Structure and Action* (Cambridge: 2001).

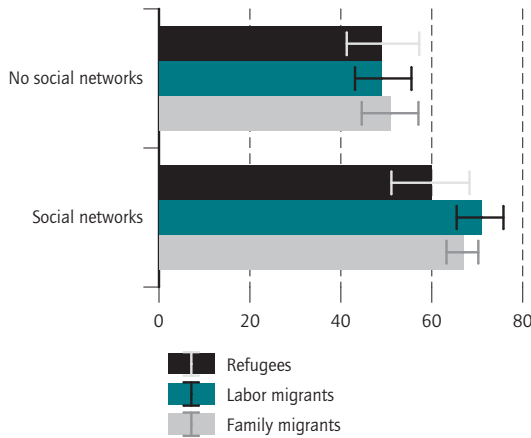
¹² T. Mouw, "Social capital and finding a job: do contacts matter?," *American Sociological Review* 68 (2003): 868-898.

¹³ A. Drever and O. Hoffmeister, "Immigrants and Social Networks in a Job-Scarce Environment: The Case of Germany," *International Migration Review* 42(2) (2008): 425-448.

Figure 1

Pre-migration social ties in Germany among refugees and other migrants who found their first job through social networks¹

In percent



¹ Results on the first position held by migrants who have already been working in Germany. Question: When you moved to Germany, did you have the help of any relatives or friends who already lived in Germany?

Source: IAB-SOEP Migration Sample 2013, wave 1; own calculations, N = 1,798, weighted (v31).

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Refugees with social ties in Germany found their first job more often informally than refugees without these ties.

been due to the differing educational backgrounds of the groups in question. It is often presumed that better-educated individuals are less likely to search for jobs through social networks and more likely to do so through formal channels.¹⁴ At the same time, it is assumed that labor market positions requiring higher qualification levels are more likely to be advertised officially and less likely to be filled through personal contacts – and a similar pattern can also be observed in Germany.¹⁵ This applies not only to the indigenous population, but also to immigrants in Germany and other countries as well.¹⁶

Surprisingly, the situation is different for the refugees in the present study. The share of those with a university degree who found their first job through informal

¹⁴ See Mouw, "Social capital:" 868-898.

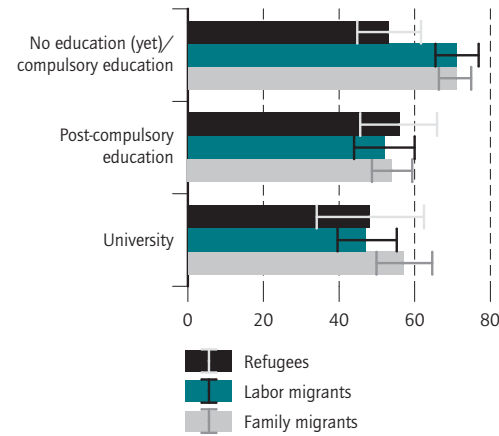
¹⁵ H. Brenzel, J. Czepek, et al., "Neueinstellungen im Jahr 2015. Stellen werden häufig über persönliche Kontakte besetzt," *IAB Brief Report*, no. 4 (2016).

¹⁶ Three years ago, for example, researchers from the IAB and the SOEP at DIW Berlin reported that immigrants with a higher level of education were less likely to find their first job in Germany through social networks (see Brücker, Liebau, et al., "Anerkannte Abschlüsse"). Similar patterns were observed in other scientific studies: for instance, on immigrants in Sweden (see A. Behtoui, "Informal Recruitment Methods and Disadvantages of Immigrants in the Swedish Labour Market," *Journal of Ethnic and Migration Studies* 34(3) (2008): 411-430) and on refugees in the Netherlands (see van Tubergen, "Job Search Methods").

Figure 2

Educational levels among refugees and other migrants who found their first job through social networks¹

In percent



¹ Results on the first position held by migrants who have already been working in Germany. Educational level refers to the highest educational degree or diploma obtained in Germany or abroad.

Source: IAB-SOEP Migration Sample 2013, wave 1; own calculations, N = 1,798, weighted (v31).

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Refugees with lower levels of education found their first jobs through informal channels at around the same rate as refugees with higher levels of education.

channels amounted to 34 to 62 percent, with an average of 48 percent (see Figure 2).¹⁷ Similar shares can also be observed for refugees with other levels of education: between 46 and 66 percent of refugees who had completed a post-compulsory education, and between 45 and 62 percent of those with no qualifications at all or only a mandatory school-leaving certificate. Thus no statistically significant differences can be observed between refugees with higher and lower levels of education in terms of their job acquiring methods.

Conversely, other immigrants who had completed a post-compulsory education or held a university degree were significantly less likely to find work through informal channels than were immigrants with a mandatory school-leaving certificate or no qualifications at all.¹⁸

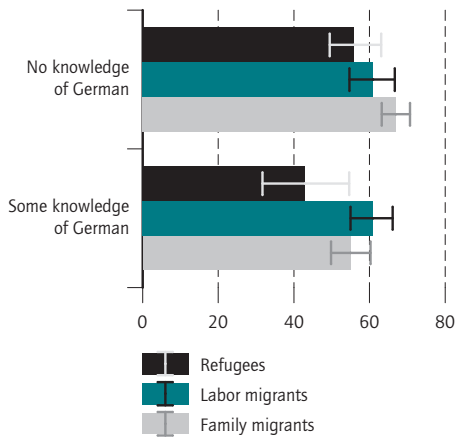
¹⁷ Respondents who found a job through both formal and informal channels (one to six percent for the refugees surveyed) were categorized under "formal channels" in the following analyses.

¹⁸ Another important differentiation could be made between immigrants who received all of their education outside of Germany and those who also invested in education while living in Germany. In order to verify this, individuals who had studied or attended (evening) classes in the period of time between arriving and landing their first job were included in a separate analysis as a different educational group. The findings reported here remained generally stable.

Figure 3

Pre-immigration knowledge of German among refugees and migrants who found their first job through social networks¹

In percent



¹ Results on the first position held by migrants who have already been working in Germany. Pre-immigration knowledge of German refers to self-assessed speaking proficiency of migrants before they moved to Germany (none vs. some). Question: How well did you know German before moving to Germany?

Source: IAB-SOEP Migration Sample 2013, wave 1; own calculations, N = 1,798, weighted (v31).

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Refugees with pre-immigration knowledge of German found their first job less often informally than refugees without this knowledge.

Relatively poorer command of German language among refugees who found a job through informal channels

In order to successfully apply for a job, a certain level of German is often required: for example, applicants must be able to read job advertisements, participate in job interviews, or interact with job agents, especially when it comes to formal methods of finding work.¹⁹ In contrast, relatives, friends and acquaintances with a better command of German can act as intermediaries for job searches through social networks.²⁰ Jobs could also be acquired through social networks where knowledge of German plays a more minor role. For refugees as well, the level of German proficiency might have been crucial to their successfully finding work through a particular channel.

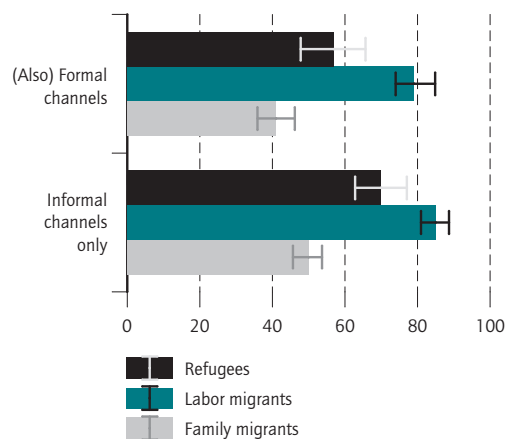
¹⁹ Van Tubergen, "Job Search Methods."

²⁰ In previous studies on immigrants in Germany, it was possible to show, for instance, that immigrants with a poorer command of the German language use social networks more intensively for their job search; on this, see Nivorozhkin et al., "Arbeitssuche von Migranten. Deutschkenntnisse beeinflussen Suchintensität und Suchwege," *IAB Briefly Report*, no. 25 (2006).

Figure 4

Job-acquisition method of refugees and migrants, who started their first employment in full-time¹

In percent



¹ Results on the first position held by migrants who have already been working in Germany.

Source: IAB-SOEP Migration Sample 2013, wave 1; own calculations, N = 1,798, weighted (v31).

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Full-time work was more prevalent among refugees who found their first jobs through informal channels than among those who (also) used formal channels.

In the IAB-SOEP Migration Sample, respondents were also asked to subjectively rate their German proficiency prior to immigration. Since most refugees did not know any German upon arrival,²¹ the only distinction here is between whether respondents reported their level of German as "existent" or as "non-existent."

When it came to landing their first job, with 49 to 63 percent, the refugees who rated their pre-immigration knowledge of German as non-existent made use of informal channels more often than did those who arrived with German skills (see Figure 3). The same applies to family migrants (between 63 and 70 percent). No differences were evident among the labor migrants, however.

Full-, part-time, and marginal employment and job-acquiring methods among refugees

The fact that social networks are crucial to job searches tells us little about whether refugees and other immigrants were able to find a suitable job through social

²¹ On this, see the report in this issue by E. Liebau and D. Schacht, "Language acquisition: refugees nearly achieve proficiency level of other migrants" *DIW Weekly Report*, no. 35 (2016).

networks. Sometimes immigrants who have found work through informal channels have a lower occupational status.²² This was also observed for refugees.²³ Based on the IAB-SOEP Migration Sample, this study examined whether immigrants who were successful through different job-acquiring methods worked more or less often in full-time positions or in something else, including part-time positions, in marginal employment, or as a trainee.²⁴

The forms of employment of refugees and other immigrants are closely correlated with their job-acquiring method (see Figure 4). Refugees who found their first job through social networks were more often employed in full-time positions (between 63 and 77 percent) than were refugees who did so through formal channels (between 48 and 66 percent). Family migrants were also more likely to find full-time employment through informal channels, whereas there were no statistically significant differences for labor migrants.

Refugees found their first job in Germany faster through informal channels

The job-acquiring methods of refugees and other immigrants might also have been linked to the length of time they took to find their first job in Germany. Our study analyzed what percentage of respondents found their first job in Germany within a certain number of years after immigration (see Figures 5 to 8). Here, a distinction is drawn between *formal* and *informal* job-acquiring methods.

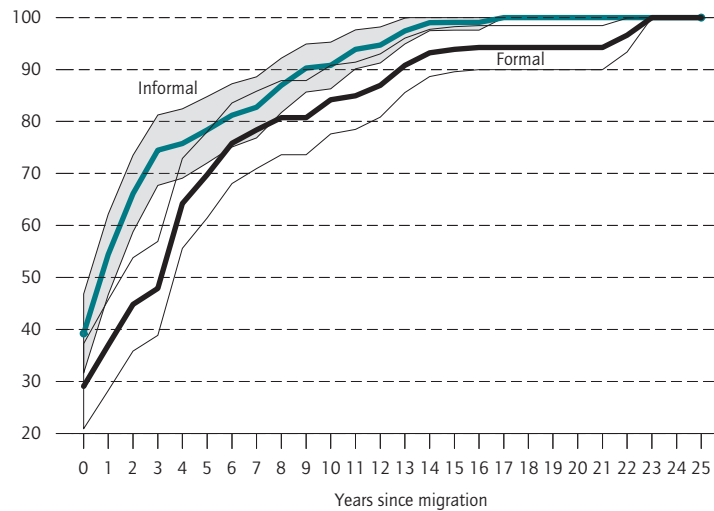
For the most part, refugees who found their first job through social networks also did so more quickly than those who acquired a job through formal methods (see Figure 5). For instance, between 68 and 81 percent of those who found a job through informal channels were employed after three years, while this only applied to 39 to 57 percent of those who found a job through formal channels. The descriptive difference is considerable here, and even after ten years, there were still statistically significant differences in the employment rates between these groups.²⁵

²² For empirical evidence from the US, see Mouw, "Social capital."
²³ For the Netherlands, see van Tubergen, "Job Search Methods:" 179–195.
²⁴ Findings from the 2014 study on refugees by the Federal Office for Migration and Refugees (BAMF) also indicated high full-time employment rates among refugees from countries in crisis; see S. Worbs and E. Bund, "Asylberechtigte und anerkannte Flüchtlinge in Deutschland: Qualifikationsstruktur, Arbeitsmarktteilnahme und Zukunftsorientierungen," short analyses by the Research Centre on Migration, Integration, and Asylum of the Federal Office for Migration and Refugees (BAMF-FZ), no. 1 (Nuremberg: 2016).
²⁵ However, it is not possible to determine here to what extent job searches by respondents who found work through informal and formal channels also vary; on this, see for example, Nivorozhkin et al. "Arbeitsuche von Migranten."

Figure 5

Job search duration of refugees who found their first job through social networks or other channels¹

Cumulative share in percent



¹ Results on the first position held by migrants who have already been working in Germany. Later job-losses are not taken into consideration, which necessarily cumulates up to 100 percent.

Source: IAB-SOEP Migration Sample 2013, wave 1; own calculations, weighted (v31).

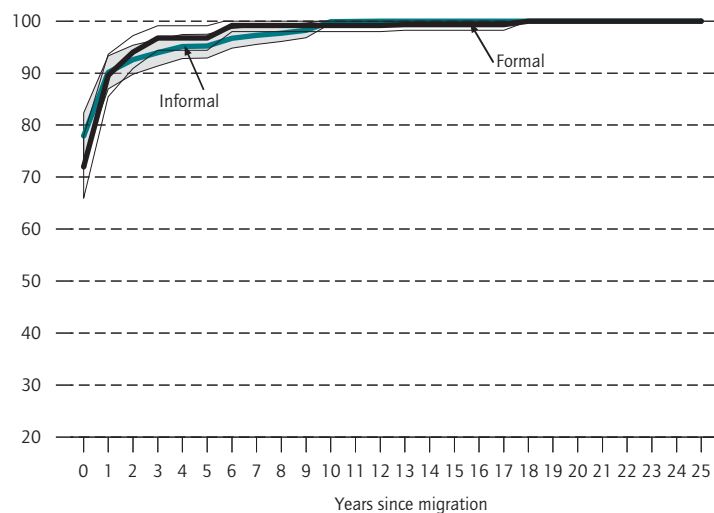
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Refugees who found their first job through informal channels usually found work faster than those who (also) used formal channels.

Figure 6

Job search duration of labor migrants who found their first job through social networks or other channels¹

Cumulative share in percent



¹ Results on the first position held by migrants who have already been working in Germany. Later job-losses are not taken into consideration, which necessarily cumulates up to 100 percent.

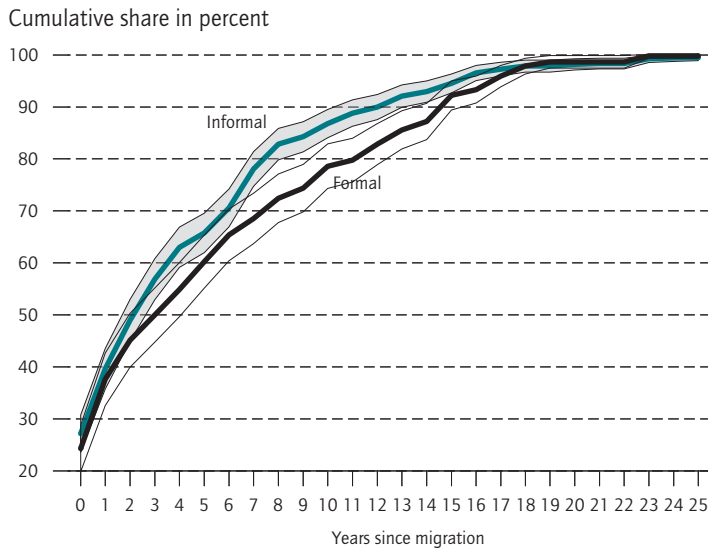
Source: IAB-SOEP Migration Sample 2013, wave 1; own calculations, weighted (v31).

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Results showed no differences for labor migrants by job acquisition method.

Figure 7

Job search duration of family migrants who found their first job through social networks or other channels¹



¹ Results on the first position held by migrants who have already been working in Germany. Later job-losses are not taken into consideration, which necessarily cumulates up to 100 percent.

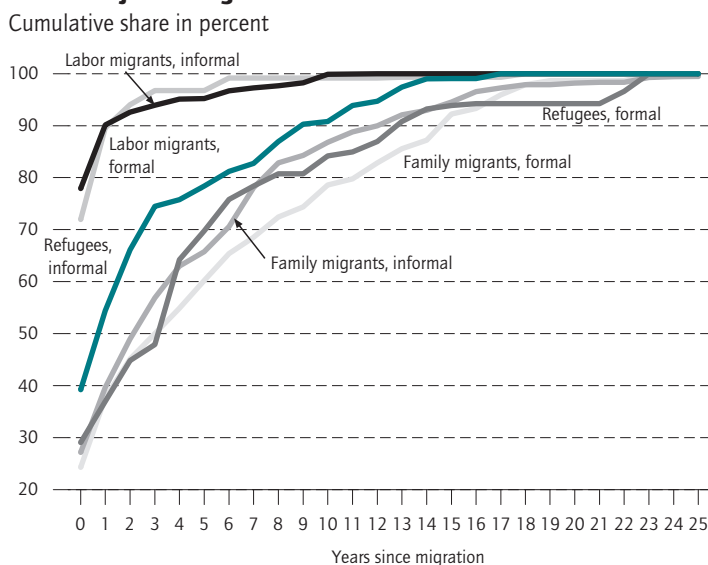
Source: IAB-SOEP Migration Sample 2013, wave 1; own calculations, weighted (v31).

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Family migrants who found their first job through informal channels also usually found work faster than those who (also) used formal channels.

Figure 8

Job search duration of refugees and other migrants who found their first job through social networks or other channels¹



¹ Results on the first position held by migrants who have already been working in Germany. Later job-losses are not taken into consideration, which necessarily cumulates up to 100 percent.

Source: IAB-SOEP Migration Sample 2013, wave 1; own calculations, N = 1,798, weighted (v31).

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Labor migrants found their first job faster than refugees and family migrants.

A similar pattern emerges for family migrants (see Figure 6). Labor migrants entered the German market particularly quickly, however (see Figures 7 and 8); this is not surprising, since many of them had probably already received a job offer prior to moving, and these individuals were generally close to the labor market. For labor migrants, it was irrelevant through which job-acquiring method they found their first job (see Figure 7).

Conclusions

Around half of all refugees in the IAB-SOEP Migration Sample found their first job through friends, relatives, and acquaintances. Formal channels such as the Federal Employment Agency and job advertisements presumably played a slightly more important role for refugees in finding work than they did for other immigrants. There were no differences in the job-acquiring methods between refugees who had higher or lower levels of education. A prior knowledge of German was more likely to go hand in hand with the use of formal job-acquiring methods. Refugees were also more likely to find a job through social networks if they already had contacts in Germany upon arrival. Furthermore, refugees who found work through informal channels were more likely to be in full-time employment. As well, they were more likely to find employment in a shorter period of time after their arrival in Germany.

The labor market integration of refugees has frequently been facilitated by social networks.²⁶ The initial implications of this finding for the German labor market and for integration policy is that effectively integrating refugees into social networks is probably crucial to their labor market success. At the same time, other studies²⁷ have shown that social ties with persons without migration background – that is, mixed social networks – have positive and long-term effects for immigrants. Consequently, a high degree of ethnic segregation should be avoided, a factor to be taken into account in future urban planning and neighborhood management. An adequate command of German is a prerequisite for developing social ties between immigrants and Germans.²⁸ Since this probably also applies to refugees, comprehensive language and integration courses may make it easier for them to establish these essential social networks.²⁹

²⁶ As is also the case for other immigrants on this, see, for example, Brücker, Liebau, et al., "Anerkannte Abschlüsse": 1147.

²⁷ B. Lancee, "Job search methods and immigrant earnings: A longitudinal analysis of the role of bridging social capital," *Ethnicities* 16(3) (2016): 1-19.

²⁸ D. Schacht, C. Kristen, et al., "Interethnische Freundschaften in Deutschland," *Kölner Zeitschrift für Soziologie und Sozialpsychologie*, 66(3) (2014): 445-458.

²⁹ For more on this, see the report in this issue by E. Liebau and D. Schacht, "Language acquisition: refugees nearly achieve proficiency level of other migrants" *DIW Weekly Report*, no. 35 (2016).

JOB-ACQUIRING METHODS

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Children and adolescents with refugee background less likely to participate in voluntary educational programs—with exception of extracurricular school activities

By C. Katharina Spieß, Franz Westermaier, and Jan Marcus

Non-compulsory educational programs including extracurricular school activities, child day care centers, and non-formal educational programs, such as sports or music activities outside of school, make an important contribution to social integration. But to what extent do children and their families actually make use of these voluntary programs? On the basis of the Socio-Economic Panel (SOEP) and the joint migration survey of the SOEP and the Institute for Employment Research (IAB), the present report seeks to address this question for the first time with a specific focus on children with a refugee background. The study shows that these children participate in some voluntary educational activities such as extracurricular school activities just as frequently as or even more frequently than other children. However, they are less likely to participate in a parent-child group or to attend a day care center, particularly those under the age of three, than their peers. Further, at both primary and secondary school age, children of refugees participate less often in sports activities outside of school. Efforts to integrate those with a refugee background should therefore also focus on these non-formal educational activities held outside of school and specifically target these children, adolescents, and their families. When it comes to extracurricular school activities, however, a great deal has already been achieved—it is important that we make full use of and continue to tap into this potential.

Education is a key component of social integration, particularly for children and adolescents. The *National Action Plan on Integration*, passed at the 5th Integration Summit in January 2012, emphasizes, once more, the importance of education for the integration of migrants.¹ The focus here is usually on schooling. There are numerous studies examining the academic success of children with and without a migrant background²—the emphasis is normally on differences in academic achievements or the transition to different tracks of secondary school. Another area of education that has received less attention to date is voluntary educational programs where participation is optional.

The present report considers children and adolescents with a refugee background. Their circumstances differ from those of children with other migrant background in that they, or their parents, came to Germany as refugees or sought asylum there. The definition of children with a refugee background relies on the information of their parents, who came mostly to Germany during the period from 1990 to roughly 2010 and not as part of the larger increase in immigration in 2014 and 2015. To date, there are no representative data available on the extent to which refugee children who arrived in Germany during the 2014–2015 period participate in education. What we do know, however, is that almost one-third of all asylum-seekers arriving in Germany between January 2015 and April 2016 were under the age of 18, indicating the relevance of the present report for this group of refugees.³

¹ See *Nationaler Aktionsplan Integration. Zusammenhalt stärken – Teilhabe verwirklichen* (Berlin: 2012).

² On this, see, for example, relevant essays in C. Diehl, C. Hunkler, and C. Kristen eds., *Ethnische Ungleichheiten im Bildungsverlauf. Mechanismen, Befunde, Debatten* (Wiesbaden: Springer VS, 2016).

³ See Autorengruppe Bildungsberichterstattung, *Bildung in Deutschland 2016. Ein indikatorengestützter Bericht mit einer Analyse zu Bildung und Migration* (Bielefeld: 2016).

What are voluntary educational activities?

Voluntary educational activities are formal and non-formal educational programs, which are not a mandatory part of an individual's schooling, and also leisure activities with an educational focus. This includes child day care centers, leisure activities such as sports and music outside of the day care center or school, and extracurricular school activities.

Day care centers play a crucial role: these establishments are particularly important for children with a migrant or refugee background⁴ because they facilitate the acquisition and day-to-day use of the German language.⁵ This is especially relevant because, for the vast majority of day-care children with a migrant background, German is not the main language spoken at home.⁶ Not only can early childhood education contribute to the successful integration of children but also of their parents, provided the establishments are geared toward supporting the families of children with a migrant background.⁷ Further, a wide range of studies in the field of education economics highlight the benefits of early education compared with measures implemented at a later age.⁸

Non-formal educational programs generally include leisure activities with an educational focus that take place outside of day care centers and schools. Although these activities are provided outside the context of traditional educational establishments, they still demonstrate a certain level of structured learning. Programs include sporting, music, and artistic activities but also cover other areas such as parent-child groups and involvement in youth organizations. As well as learning the specific skills taught in these groups, these environments provide children and young people with the opportunity to acquire a wide range of other experiences and, if they do not yet speak fluent German, also improve their language skills. Research in education economics also provides evidence that these non-formal educational programs have other

positive effects, in terms of both cognitive and non-cognitive skills.⁹ On the whole, take-up of programs like this has strikingly increased over the past few years: while a total of 48 percent of all 16- to 17-year-olds participated in activities with an educational focus in 2001, this figure had increased to 62 percent in 2012.¹⁰ Also the legislature highlights the importance of these non-formal educational activities for the integration of children and adolescents with a refugee background.¹¹ If children with a migrant or refugee background fail to participate in these activities or only do so in small numbers, compared to their peers, there is a danger they may fall behind.

The third type of voluntary educational program comprises extracurricular school activities, in the areas of sports and music, for instance. In this context, interaction with other children and other learning experiences can also make a vital contribution to integration.

However, due to the voluntary nature of all of these programs, we cannot expect equal levels of take-up among all children and adolescents. Cultural differences might be one reason for this; another decisive factor is how the parents perceive the significance of these activities for their children's education. It is also possible that the differences in levels of take-up do not stem from the migrant or refugee background but can be explained by parental education or maternal employment.¹² Costs and other aspects of these programs can also result in different take-up levels. Participation in sports clubs outside of school is, on average, cheaper than music lessons, for example and, due to financial restrictions, we can therefore expect to see more discrepancies in take-up when it comes to music.¹³ It may also be the case that children with a refugee background differ from other children with a migrant background in terms of their participation in voluntary educational activities because they have not been living in Germany for very long or because their residency status is still unresolved.

⁴ This is why, in its most recent report, the *Aktionsrat Bildung* recommended early attendance in day care centers by children with a refugee background (*Aktionsrat Bildung, Integration durch Bildung. Migranten und Flüchtlinge in Deutschland* (Münster: Waxmann, 2016), 138.

⁵ See, for example, B. Becker, "Der Einfluss des Kindergartens als Kontext zum Erwerb der deutschen Sprache bei Migrantenkindern," *Zeitschrift für Soziologie* 35 (6) (2006): 449-464; B. Becker, "Wer profitiert mehr vom Kindergarten? Die Wirkung der Kindergartenbesuchsdauer und Ausstattungsqualität auf die Entwicklung des deutschen Wortschatzes bei deutschen und türkischen Kindern," *Kölner Zeitschrift für Soziologie und Sozialpsychologie* 62(1) (2010): 139-163.

⁶ See Autorengruppe Bildungsberichterstattung, *Bildung in Deutschland 2016*.

⁷ See, for example, the recent *Aktionsrat Bildung, Integration durch Bildung*.

⁸ For a summary, see F. Cunha, J. J. Heckman, L. Lochner, and D. V. Masterov, "Interpreting the Evidence on Life Cycle Skill Formation," in *Handbook of the Economics of Education*, eds. E. A. Hanushek, S. Machin, and L. Woessmann (2006), 5: 1-765.

⁹ For a recent study with other literature references, see C. Cabane, A. Hille, and M. Lechner, "Mozart or Pelé? The effects of adolescents' participation in music and sports," *Labour Economics* (forthcoming in 2016).

¹⁰ A. Hille, A. Arnold, and J. Schupp, "Leisure Behavior of Young People: Education-Oriented Activities Becoming Increasingly Prevalent," *DIW Economic Bulletin*, no. 1 (2014): 26-36.

¹¹ German Bundestag, "Draft law for the improvement of accommodation, care, and assistance for migrant children and young people," German Bundestag printed paper no. 18/5921 (2015).

¹² One of the few studies examining the possible reasons for the low levels of take-up at child day care centers among children with a migrant background is, for example, The Expert Council of German Foundations on Integration and Migration (SVR), eds., "Obstacle Course to Day Care: Why parents with a Migration Background are Less Likely to Send Their Children to Day Care," *Policy Brief* (Berlin: 2013).

¹³ On average, membership fees for sports clubs are €3.10 per month, while music schools tend to charge an average of €38 per month for their courses (Cabane et al., "Mozart or Pelé").

No systematic findings on participation of children with refugee background available to date

Relevant studies show that attendance at child day care centers and participation in other non-formal educational programs depends on various socioeconomic factors;¹⁴ these frequently, but not always, include children's migrant background. The most recent *Education in Germany* report shows a further decline in the differences in levels of take-up between children in day care centers with and without a migrant background in the past ten years. Nevertheless, children under the age of three with a migrant background are still far less likely to attend day care centers.¹⁵ The differences are particularly pronounced if only children who speak very little German at home are taken into consideration—overall, these children are underrepresented in child day care centers. More detailed analyses show that, to a certain extent, the differences in levels of take-up go hand in hand with other socioeconomic differences such as parental education, household size, or maternal employment.¹⁶

More considerable differences between children with and without a migrant background can be identified when we look at take-up of other voluntary educational programs outside of the child day care center. Below school-age children with a migrant background are less likely to participate in sports and artistic activities.¹⁷ Children who speak no or very little German at home are less likely to be active members of sports clubs, for instance. There is no evidence of these differences when we look at participation in extracurricular school activities, however.¹⁸

Some findings regarding differences in levels of take-up in voluntary educational programs among children with and without a migrant background are therefore already available. However, to the best of the authors' knowledge, no systematic analyses based on representative data specifically focusing on children and adolescents with a refugee background have been published

¹⁴ For a summary, see Wissenschaftlicher Beirat für Familienfragen, eds., *Migration und Familie. Kindheit mit Zuwanderungshintergrund* (Wiesbaden: Springer VS, 2016).

¹⁵ See Autorengruppe Bildungsberichterstattung, *Bildung in Deutschland 2016*.

¹⁶ See, for example, F. Peter and C. K. Spieß, "Kinder mit Migrationshintergrund und in Kindertageseinrichtungen und Horten: Unterschiede zwischen den Gruppen nicht vernachlässigen!" *DIW Wochenbericht*, no. 1/2 (2015): 12–21 and Wissenschaftlicher Beirat für Familienfragen, eds., *Migration und Familie*.

¹⁷ This correlation continues to exist even if other socioeconomic factors are taken into account; see P. Schober and C. K. Spieß, "Frühe Förderung und Betreuung von Kindern: Bedeutende Unterschiede bei der Inanspruchnahme besonders in den ersten Lebensjahren," *DIW Wochenbericht*, no. 43 (2012): 17–31; Wissenschaftlicher Beirat für Familienfragen, eds., *Migration und Familie*, and Autorengruppe Bildungsberichterstattung, *Bildung in Deutschland 2016*.

¹⁸ Wissenschaftlicher Beirat für Familienfragen, eds., *Migration und Familie*.

to date. This is the starting point for the present report, which examines participation in these voluntary educational activities among children and adolescents with a refugee background.

Due to the small sample size, it is not possible to conduct separate analyses of children who are refugees themselves and those whose parents are refugees. The two groups are therefore combined, although the lion's share of cases studied are children of refugee parents. For the sake of linguistic simplicity, we use the term "children of refugees" for this group or, as a synonym, "children with a refugee background."

The analyses presented in this report are based on data from the Socio-Economic Panel (SOEP) study and the IAB-SOEP migration survey, a subsample of the SOEP.¹⁹ Below we illustrate the extent to which children of refugees in different age groups participate in voluntary educational programs. The take-up rates are compared with those of children with a migrant background (but no refugee background) and children with neither a migrant nor a refugee background.²⁰ The majority of the analyses described here are based on data surveyed between 2006 and 2014.²¹ As far as possible, data for each child was used from several different years during this period.

Below school-age children of refugees frequently underrepresented in voluntary educational programs

Children of refugees are far less likely to go to a child day care center (see Figure 1). While 16 percent of children of refugees under the age of three attended a day care center, at the same age, 25 percent of children with a migrant background (but no refugee background) were in day care centers, and 32 percent of children with neither a migrant nor a refugee background. These differences in levels of take-up tail off substantially during the *Kindergarten* or pre-school years (age three to around six, depending on when a child actually enters school). Although children of refugees in this age group are less likely to attend a child day care center than other children, the figure is still at least 90 percent and the differences compared to the other groups are not statistical-

¹⁹ On this, see the box in the Editorial of this issue of *DIW Economic Bulletin*.

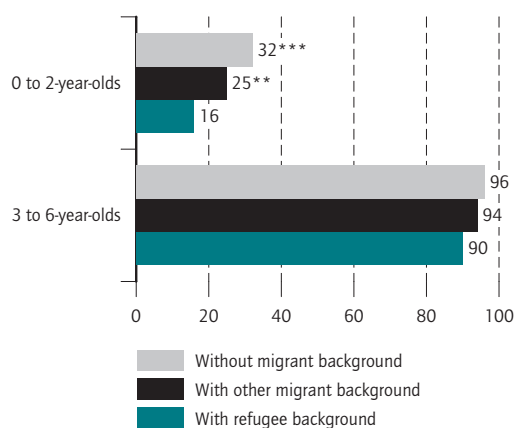
²⁰ Further analyses not presented here also differentiate according to respondents' length of stay. The differences in take-up levels tend to be smaller, the longer children have been living in Germany—extracurricular sporting activities at school, however, are an exception here too.

²¹ For the analyses of children, we use information on the same children from different survey years. The analyses of adolescents are restricted to one observation per person. All standard deviations calculated to determine the significance level take multiple observations of children into account and are clustered at the household level.

Figure

Child day care center participation by migrant and refugee background¹

Participation rates in percent



Significance of differences compared to group with refugee background: *** 1 percent, ** 5 percent, *10 percent. Significance tests rely on standard errors that are clustered at the household level. Observations in person-years for 0 to 2-year-olds: 12,222. For 3 to 6-year-olds: 13,063.
¹ Children below compulsory school age.

Source: SOEP.v31, years 2006–2014, weighted. Estimations by DIW Berlin.

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Children of refugees attend day care centers less often, especially when they are younger than three.

ly significant.²² In other words, children with a refugee background certainly attend day care centers at age three

²² The take-up rates both of children less than two years and children between three and six years with no migrant background are not precisely compatible with the data from the official children and youth welfare statistics. See Autorengruppe Bildungsberichterstattung, *Bildung in Deutschland 2016*. This is because no completely clear distinction could be drawn between the age groups due to missing data on the birth months of some children included in the sample.

and over but in early childhood, when language acquisition is easier than later on, children with a refugee background are still underrepresented in these programs.

However, if we examine the attendance of children below school age in other voluntary educational activities outside the day care centers such as sports, early childhood music, and parent-child groups, a somewhat different picture emerges (see Table 1): children of refugees are just as likely to participate in sporting activities such as children’s gymnastics or swimming as other children with a migrant background (around 30 percent in each case). What is striking, however, is that virtually no children and parents with a refugee background attend a parent-child or other similar groups—these activities are therefore far less likely to help those with a refugee background interact with other families for building up social networks.

Primary school children of refugees less likely to participate in sports and music activities outside of school

At primary school age, children of refugees are equally likely to participate in voluntary educational programs within school as other children. When it comes to extra-curricular school activities in sports, the take-up rates among children of refugees are, in fact, significantly higher than among those with and without a migrant background (see Table 2). The situation is quite different, however, when we take a look at educational activities held outside of school: here, children of refugees are distinctly underrepresented. While 66 percent of children in these age groups with no migrant background and 56 percent of these children with other migrant background take part in sports outside of school, the corresponding figure for children of refugees is only 41 percent. These differences are statistically significant and a

Table 1

Participation in non-formal educational programs by children below compulsory school age

In percent

	Children’s gymnastics, sports, swimming	Early childhood music classes	Parent-child groups and others ¹	Observations in person-years
Without migrant background	42	16***	11***	14,837
With other migrant background	30	10	6***	5,589
With refugee background	31	7	1	252

Significance of differences compared to group with refugee background. *** 1 percent, ** 5 percent, * 10 percent. Significance tests rely on standard errors that are clustered at the household level.

¹ Includes artistic activities to a limited extent.

Source: SOEP.v31, years 2006–2014, weighted. Estimations by DIW Berlin.

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Refugees and their children seldom participate in parent-child groups.

Table 2

Participation in voluntary educational programs by children of primary school age

In percent

	Extracurricular school activities			Non-formal educational programs outside school			Total			Observations in person-years
	Sports	Music	Other	Sports	Music	Other ¹	Sports	Music	Other	
Without migrant background	23***	17	23	66***	27***	12***	73***	37***	32***	9,159
With other migrant background	30	15	22	56**	17*	9***	66	27	29*	2,652
With refugee background	37	16	19	41	10	1	58	21	19	207

Significance of differences compared to group with refugee background. *** 1 percent, ** 5 percent, * 10 percent. Significance tests rely on standard errors that are clustered at the household level.

¹ Art classes, youth organizations, youth groups, and youth centers.

Source: SOEP.v31, years 2006–2014, weighted. Estimations by DIW Berlin.

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Primary school students with a refugee background are less often involved in sports and music classes outside school.

similar pattern can be observed for music and other educational activities outside of school. Even if we examine participation in area-specific voluntary educational activities as a whole, i.e., we combine programs organized within and outside of school in one specific field (such as sports, music, etc.), it is apparent that children with a refugee background are still underrepresented in sports, music, and other areas. The higher take-up levels of children with a refugee background in extracurricular sporting activities within school cannot offset the lower participation in sporting activities outside of school: while 73 percent of children with neither a refugee nor a migrant background take part in either extracurricular sporting activities or a sports club outside of school, the corresponding figure for children with a refugee background is only 58 percent.

Overall, these findings point to the important function of schools as an engine for integration, on the one hand,

going beyond the regular mandatory school curriculum. On the other hand, there are also clear indications that the potential of educational activities outside of school to support social integration is not yet being fully exhausted.

Children of refugees more likely to participate in extracurricular sporting activities within school

The situation is similar among children of secondary school age: children of refugees are more likely to participate in extracurricular school activities with a sports and music focus (see Table 3). In this age group a total of 32 percent of children with a refugee background are enrolled in an extracurricular sporting activity while just 22 percent of children with no migrant or refugee background participate in these groups. When it comes to educational programs outside of school, however, children of refugees are less likely to participate than chil-

Table 3

Participation in voluntary educational programs by children of secondary school age

In percent

	Extracurricular school activities			Non-formal educational programs outside school			Total			Observations in person-years
	Sports	Music	Other	Sports	Music	Other ¹	Sports	Music	Other	
Without migrant background	22*	13	23	59***	22	21***	66**	29	38	13,549
With other migrant background	30	14	23	53*	18	11	64*	26	31	3,114
With refugee background	32	19	20	40	16	8	52	23	27	261

Significance of differences compared to group with refugee background. *** 1 percent, ** 5 percent, * 10 percent. Significance tests rely on standard errors that are clustered at the household level.

¹ Art classes, youth organizations, youth groups, and youth centers.

Source: SOEP.v31, years 2006–2014, weighted. Estimations by DIW Berlin.

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Children of refugees are more often active in extracurricular activities in sports.

Table 4

School engagement and participation in voluntary educational programs by adolescents

In percent

	School engagement throughout entire school career			Current participation in non-formal educational programs outside school						Observations
	Extracurricular activities in sports	Other extracurricular activities ¹	Class president	Weekly sport practice and participation in competitions	Weekly sports	Weekly playing music/singing and music lessons	Weekly playing music/singing	Weekly dance/theater	Volunteer work in clubs/social services, weekly	
Without migrant background	25**	50	33	29	68	15***	28	18	17	3,122-3,187
With other migrant background	23**	47	27**	26	64	11**	24*	19	14	747-775
With refugee background	39	41	44	32	70	5	38	23	11	100-101

Significance of differences compared to group with refugee background. *** 1 percent, ** 5 percent, * 10 percent. Significance tests rely on standard errors that are clustered at the household level. ¹ Includes the participation in school theater or dance groups, choir, orchestra, school band, school magazine or other extracurricular school activities.

Source: SOEP.v31, years 2000–2014, weighted. Estimations by DIW Berlin.

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Adolescents with a refugee background are more often elected class president than their peers.

dren with no migrant or refugee background. For this age group, too, the increased participation in voluntary activities within school cannot completely offset the lower levels of take-up in programs outside of school: if we combine sports activities within and outside of school, the take-up rate among children with a refugee background is significantly lower than among other children. However, when we look at music and other activities, children with a refugee background participate just as much as children with other migrant background.

Further, adolescents were also surveyed retrospectively about the extent to which they had participated in voluntary educational programs over their entire school life to date. Their responses confirm that children of refugees frequently take part in extracurricular school activities (see Table 4). Children of refugees did in fact significantly more often participate in extracurricular sporting activities within school (39 percent) than other children (23 to 25 percent). Just under half of those surveyed had already attended other extracurricular school activities despite sports; here, the differences in levels of take-up between the groups studied are not particularly great. One striking finding is that 44 percent of adolescents with a refugee background were elected class president at least once during their school time. The rate among adolescents with no refugee background was much lower.

At the time the survey was conducted, there were no major differences between the three groups with regard to take-up of sporting activities outside of school. However, only five percent of adolescents with a refugee background took a music class outside of school which means they were significantly underrepresented compared to children with no migrant background (15 percent). This is presumably not down to a lack of interest in music

since the share of adolescents with a refugee background who are involved in a musical activity of some kind on a weekly basis is higher than among other groups. However, with regard to participation in weekly dance or acting activities and voluntary work, no major differences are evident. Roughly one in ten adolescents with a refugee background does voluntary work—at least in terms of a weekly and therefore very regular commitment.

Socioeconomic characteristics only partially explain differences in levels of take-up

The question arises as to whether the differences in take-up rates between the three groups of children and adolescents outlined above can in fact be attributed to a refugee or migrant background. It is possible that other socioeconomic characteristics such as parental education and income also have an impact and that these other characteristics explain the association between refugee background and participation in voluntary educational activities. In order to determine whether this is the case, based on statistically significant differences in levels of take-up taken from previous analyses, the present study uses linear probability models to estimate the effect of a refugee and/or migrant background on participation in voluntary educational activities. Differences with regard to specific characteristics of the parents (such as education, the age, and employment status), of the household (such as household income, size of place of residence, single-parent status, region, and survey year), and of the child (such as age, sex, and number of siblings) are controlled for.

With respect to the attendance of a child day care center under the age of three, the findings show that there are no statistically significant differences between chil-

Table 5

Participation in voluntary educational programs by children, controlling for migrant and refugee background, child, mother, and household characteristics

Coefficients from linear probability models in percentage points¹

	Not yet school age			Primary school age				Secondary school age		
	Child care center for 0 to 2-year-olds	Early childhood music classes	Parent-child groups and others	In school	Outside school			In school	Outside school	
				Sports	Sports	Music	Other	Sports	Sports	Other
Refugee background	1.40	-3.83**	-4.84***	11.78***	-13.67***	-7.48***	-8.50***	10.25***	-11.21***	-16.86***
Other migrant background	0.05	-2.12***	-3.88***	8.23***	-7.13***	-2.80**	-3.88***	6.40***	-4.25***	-11.02***
Reference category: no migrant or refugee background										
At least one parent with medium level of education (ISCED 3+4)	1.50	0.96	3.00***	2.04	9.98***	5.77***	3.95***	-0.46	6.24***	4.77***
At least one parent with higher level of education (ISCED 5+6)	5.69***	8.04***	5.45***	2.18	19.04***	22.55***	7.19***	0.57	15.21***	7.63***
Reference category: both parents with lower level of education										
Observations in person-years	12,583	21,055	21,055	12,284	12,284	12,284	12,284	16,621	16,621	16,621
R ²	0.36	0.11	0.09	0.04	0.13	0.16	0.03	0.02	0.09	0.03

Significance level: *** 1 percent, ** 5 percent, * 10 percent. Significance tests rely on standard errors that are clustered at the household level.

¹ Also controlling for the variables: sex of child, single-parent household, number of siblings, age of mother, employment status of both parents, equivalised net household income, municipality size, East-West indicator, and indicator variables for all survey years and the child's age.

Source: SOEP, v31, years 2006–2014, weighted. Estimations by DIW Berlin.

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Socioeconomic characteristics do not explain the differences in participation in non-formal educational programs.

dren of refugees and children with no refugee or migrant background when maternal employment status, parental education, and other characteristics are taken into account (see Table 5). The association between refugee background and day care center attendance identified earlier is therefore due to these other factors. Nevertheless, the fact remains that children with a refugee background under the age of three are underrepresented in day care centers.

However, the picture that emerges with regard to non-formal educational programs is quite different: although taking parental education and employment history into account slightly reduces the differences, children with a refugee background are far less likely to participate in parent-child groups. The probability of them attending one of these groups is still five percentage points lower; once the other parental characteristics are controlled for, however, no differences to those with a migrant background are observed.

The differences in participation rates in voluntary educational programs among primary and secondary school children discussed above cannot be entirely explained by factors other than refugee background: children of refugees are still more likely to participate in extracurricu-

lar sporting activities but are significantly less likely to participate in educational activities outside of school (in sports and music, for instance)—even if socioeconomic characteristics are taken into account, meaning that we can exclude the possibility of, for example, household income explaining the aforementioned associations.

If socioeconomic characteristics are controlled for, take-up rates in extracurricular sporting activities among adolescents with a refugee background over the entire school life are no higher than among children with and without a migrant background (see Table 6). The increased probability of being class president at least once over the young person's entire schooling is also no longer statistically significant when socioeconomic characteristics are controlled for. Only the lower level of regular participation in music classes observed among adolescents with a refugee background continues to apply when socioeconomic characteristics are taken into account—the difference between this group and those without a migrant background is eight percentage points.

With regard to differences between children with and without a migrant background (and with no refugee background), our analysis confirms the findings of previous studies: participation in a range of voluntary educa-

Table 6

Participation in voluntary educational programs and school engagement by adolescents controlling for migrant and refugee background; child, mother and household characteristics

Coefficients from linear probability models in percentage points¹

	School engagement throughout entire school career		Current participation in non-formal educational programs outside school	
	Sports	Class president	Weekly playing music/singing and music lessons	Weekly playing music/singing
Refugee background	4.77	4.09	-7.55***	3.20
Other Migrant background	0.03	-1.59	-4.92***	-2.99
Reference category: no migrant or refugee background				
At least one parent with medium level of education (ISCED 3+4)	0.14	-0.28	2.72	6.05**
At least one parent with higher level of education (ISCED 5+6)	7.93***	6.22*	16.84***	17.41***
Reference category: both parents with lower level of education				
Observations in person-years	4,192	4,192	4,117	4,117
R ²	0.03	0.02	0.10	0.09

Significance level: *** 1 percent, ** 5 percent, * 10 percent. Significance tests rely on standard errors that are clustered at the household level.

¹ Also controlling for the variables: sex of child, single-parent household, number of siblings, age of mother, employment status of both parents, equalised net household income, municipality size, East-West indicator, and indicator variables for all survey years and the child's age.

Source: SOEP.v31, years 2000–2014, weighted. Estimations by DIW Berlin.

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Children with a refugee background participate significantly less often in music classes outside school than children without any migrant background.

tional activities is directly correlated with migrant background—socioeconomic characteristics such as parental education and household income alone cannot explain the differences. In almost all of the areas analyzed, the take-up probability among children with another migrant background is somewhere between that of children with no migrant background and those with a refugee background. This is evident from the regression coefficients for children with an other migrant background, which are always lower than the coefficients for children with a refugee background but—in most cases—still have the same (plus or minus) sign (i.e., the deviation is in the same direction relative to the comparison group of children with neither a refugee or other migrant background).

The findings on the impact of parental education are also confirmed by previous analyses. The correlations in all calculations point in the expected direction: the higher the level of parental education, the greater the probability of a child attending day care center below the age of three. The same also applies to early childhood music and educational programs organized outside of school for different age groups. With regard to participation in extracurricular sporting activities, however, the impact of parental educational background is negligible. Maternal employment status (coefficients are not shown in the table) is significant particularly with regard to day care center attendance under the age of three. The figures clear-

ly show that children in this age group whose mothers are in full-time employment in particular are more likely to attend child day care center.

Conclusion

The findings of the present report show that children with a refugee background are just as likely to participate in some voluntary educational programs as other children, if not more so in fact. This primarily applies to extracurricular school activities. However, children of refugees are less likely to participate in voluntary educational activities outside of school. During the very early years, these children are also underrepresented in child day care centers and particularly in parent-child groups: programs tackling this issue by directly and early addressing children with a refugee background and their families are therefore useful and necessary. These measures could help to exploit the potential of early child care centers and education programs far more fully than has been the case to date. In order to better reach out to and support children and families with a refugee background, programs should emphasize their intercultural focus both within the establishments themselves and also in terms of the advisory services provided. Further intercultural skills training or the explicit recruitment of voluntary and paid staff with a migrant or refugee background are possible steps that sports clubs and the suppliers of music pro-

grams outside school could take, for instance. A number of valuable measures have already been implemented. Further steps must now be taken²³ and their effectiveness evaluated. There is certainly a need for such measures to be implemented in this sphere—both by civil society and by the state at central government, federal states, and municipal governments. Integration in the formal as well as non-formal education sector both requires additional resources to be invested.²⁴

23 For an overview of examples of measures implemented, see also *National Action Plan on Integration*.

24 On this, see also the "Draft law for the improvement of accommodation, care, and assistance for migrant children and young people" which strongly emphasizes that they "(should) maintain the possibility of developing their potential and integrating into society through access to formal and non-formal educational activities" (on this, see German Bundestag, "Draft law for the improvement of accommodation": 1).

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As the central educational establishment, school has the capacity to encourage the integration of children with a refugee background in extracurricular school activities, for instance. These programs have considerable potential which we must use to the full and (continue to) foster—yet another reason why children of refugees should attend school as soon as possible after arriving in Germany.

What is still open to question is the extent to which the findings outlined in the present report can be applied to the children and adolescents who arrived as refugees in the last two years—this can only be answered by analyzing as yet unavailable data. However, the findings presented here give some indications of starting points for the integration of children and adolescents with a refugee background, specifically in the field of voluntary educational programs.

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