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How to cite this publication

Please cite the final published version:

Caner, A., & Pedersen, P. J. (2019). Does Poverty Among Immigrants Adapt to Country of Residence? Turks in Germany and Denmark. *International Migration*, 57(1), 264-280.
<https://doi.org/10.1111/imig.12522>

Publication metadata

Title:	Does Poverty Among Immigrants Adapt to Country of Residence? Turks in Germany and Denmark.
Author(s):	Caner, Asena ; Pedersen, Peder J.
Journal:	International Migration
DOI/Link:	10.1111/imig.12522
Document version:	Accepted manuscript (post-print)

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Does Poverty among Immigrants Adapt to Country of Residence?¹

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April 2018

Abstract

We use data on Turkish immigrants in two European welfare states, Denmark and Germany, and data on Turks at home. Compared with most studies of immigrant poverty, we thus control for the differences in immigrant composition. Denmark and Germany have different welfare state types, labor market structure and institutions. We study poverty among Turkish immigrants in these two host countries. In both, Turkish immigrants have much higher poverty rates than natives. We perform Fairlie decompositions to find that the larger part (55-80%) of the native-immigrant poverty difference is explained by market valuation of the characteristics and by un-observables. Finally, we decompose poverty by subgroups and find that certain subgroups (such as families with children and the elderly) are especially vulnerable in both countries and that not much has changed in the two countries between 2008 and 2013 in terms of the vulnerability of these subgroups to poverty risk.

JEL codes: I32, J15, I38

Keywords: poverty, Turks in Europe, comparative research, non-linear decomposition, poverty decomposition

¹ We are grateful to the Rockwool Foundation Research Unit for allowing us to use the Danish register data. We are grateful to Turkish Statistical Institute (TurkStat) for providing the Turkish data, and to Güllü Calik and Ilkay Kahveci from TurkStat for patiently answering our numerous questions. Murat Dönmez kindly provided help with the literature review. Palle Sørensen, Rune Smet, Nina Jørgensen and Nikolaj Hansen have been most helpful with efficient research assistance.

1. Introduction

The focus in the present paper is on the economic position among immigrants from Turkey in two European countries, Denmark and Germany. Currently, about 2.4 million people of Turkish origin live in Germany and about 60 thousand live in Denmark (Turkish Ministry of Labour and Social Security 2016), and they are the biggest non-EU group in both Germany and Denmark.

Our focus is on poverty and on the extent to which Turks in the two host countries differ in poverty incidence relative to the native populations in these countries and whether any convergence between immigrants and natives occurs over time. The host countries that we choose for the study offer two different environments to Turkish immigrants with respect to the welfare state type. According to Esping-Andersen's classification, Denmark has a social-democratic welfare regime, whereas Germany has a corporatist one (Esping-Andersen 1990). One aim of the present study is to examine whether these structural welfare state differences have different impacts in immigrant groups with the same country of origin.

We contribute to the literature by focusing only on Turkish immigrants in two host countries. We control for the differences in immigrant composition unlike most of the earlier studies. First, we show that poverty rates among immigrants from Turkey do not converge to the rates among natives in the two host countries. Although poverty rates are slightly higher among immigrants in Germany than in Denmark for most of the last 20-25 years, the difference is quite small considering the differences in welfare state type and labor market structures between Denmark and Germany. Further, the household types facing high poverty risk are the same in the two countries. Secondly, we find that in Denmark, compared to Germany, the poverty gap between immigrants and natives is more closely related to the combined influence of market valuation of characteristics and discrimination. Thirdly, we find that Turkish women are more active in the Danish labor market, where the native women have labor force participation rates above the level for German women for most of the period we study. One clear policy conclusion as evident from the poverty gap is that the labor market integration is low in both host countries, calling for instruments to overcome the combined barriers from lack of qualifications and fairly high entry wages. Finally, we find a clear impact from the difference in child family benefits (the German program is progressive in the number of children; the Danish program is proportional). In addition, the policy rule regarding fractional old age pension reflecting time of residence in the host country is clearly visible in Denmark as part of the explanation of the increase

in the poverty gap along with a steeply increasing average age among Turkish immigrants in recent years.

Section 2 presents a brief survey of earlier literature. Some of the characteristic differences between the two welfare state types are discussed in Section 3. In Section 4 we present the sources for the data that make our comparative study possible: Surveys in Germany and Turkey, and register based data for the whole population in Denmark. Section 5 reports descriptive evidence regarding poverty indicators for the 5 groups we study, i.e. Turks in Turkey, Turkish immigrants in Denmark and Germany, and the native populations in the two host countries. Section 6 presents the results from two types of decompositions of poverty differences, i.e. a Fairlie decomposition and a decomposition by subgroups. Conclusions regarding policy and the eventual degree of convergence between immigrant and native poverty rates are in the final Section 7.

2. Literature

The economics literature that studies poverty among immigrants is small but growing. So far, only a few studies have investigated poverty in Europe with a special focus of comparing immigrant poverty to native poverty. According to the OECD, Denmark has one of the lowest poverty rates in the OECD and the rate in Germany is not above average (OECD 2017). However, when immigrants in these countries are considered, especially those coming from middle and low-income countries outside the EU, poverty rates are much higher. Below, we summarize the findings of studies that have examined immigrant versus native poverty.

Two studies compare immigrant poverty in Denmark and Sweden using comparable micro data sets (Blume et al. 2005, 2007). Relying on the similarity of the two countries in terms of a number of labor market and welfare state characteristics, these studies focus on how immigrant poverty can be linked to differences in arrival rates, years of residence, countries of origin and cyclical situation at time of arrival in the host country. Although overall immigrant poverty rates are higher in Denmark compared to the rates in Sweden, restricting the attention to comparable immigrant groups, such as Turks, yields similar poverty rates across the two countries. A study on Sweden analyzes poverty risk and persistence, comparing immigrants to natives. The study is based on a 3 percent representative sample of the population with panel properties followed for the years 1991–2001. Immigrant households (and especially refugee immigrants) are found to have both low poverty exit probabilities and high poverty entry probabilities compared with native Swedes (Hansen and Wahlberg 2009).

A major factor that affects immigrant poverty is their labor force participation compared to natives. One recent study confirms the importance of this also for poverty in old age (Jakobsen and Pedersen 2017). It finds that in Denmark, immigrants (or refugees) from low and middle-income countries are in risk of even higher poverty when they become 60-74 years old, because of having accumulated less than full tenure in the labor market or a too short duration of residence in the country to obtain the full amount of disability or state pension, or both.

Two reports analyze poverty among immigrants relative to natives in most EU countries based on EU-SILC survey data for 2004 and 2007 (Lelkes 2007; Lelkes and Zólyomi 2011). Comparing results for Denmark and Germany, Lelkes and Zólyomi (2011) find a higher poverty risk for non-EU immigrants in Denmark, but a lower risk for natives. Consequently, they find a higher immigrant-native poverty gap in Denmark. Kesler (2015) examines immigrant poverty across three institutionally distinct European states: Germany, Sweden, and the United Kingdom. Focusing on 33 immigrant groups and controlling for sending country in addition to human capital and family characteristics, the analysis explores host country variation in (1) immigrant/native-born poverty gaps and (2) the underlying poverty levels at which these gaps occur. Findings reveal the largest poverty gaps in Sweden and demonstrate that this is due to immigrants' comparatively low level of labor market participation. However, underlying poverty levels are also lowest in Sweden because of a two-pronged policy strategy of promoting work particularly among married women, immigrant and native-born alike, and reducing poverty through different forms of income support. Thus, immigrants in Sweden live at lower levels of poverty than their immigrant counterparts in Germany and the UK, despite facing higher levels of poverty gaps relative to native-born Swedes. (Bárcena-Martín and Pérez-Moreno 2017) analyze EU-SILC data for EU 28 and Iceland and Norway for 2007 and 2012. They find immigrants are exposed to higher poverty risk than natives, but the immigrant-native gap varies across countries beyond what can be explained by household-level effects. Sample sizes are however small. For instance, for Denmark in 2012 the total number of non-mixed immigrants – i.e. where both adults in the family are immigrants – is 133, made up of both EU and non-EU immigrants. The corresponding number for Germany is 347 persons.

3. Background: Turkish Immigrants in two European welfare states.

Turkish immigration to Europe began after World War II, but the country began to export labor to Western Europe on a significant scale only after an official agreement was negotiated with the Federal

Republic of Germany in 1961 (Fassmann and İçduygu 2013; Abadan-Unat 2011). A social security agreement was signed with Denmark in 1970 (Abadan-Unat 2011). When the first guest worker agreement was signed between Turkey and Germany in 1961, there were 6.700 Turks in Germany corresponding to 1% of the foreign population. The bilateral agreement of Turkey with Germany, and later with other European countries, were in fact built on the principle of rotation. Workers sent abroad would be trained for a year, during which they would gain knowledge and expertise. The expectation was that they would return to Turkey to make their expertise available to the development of the country. However, from the beginning, ‘guest workers’ showed an inclination to stay longer. Migration peaked during the years 1971-1973, when more than half a million Turkish workers arrived in Europe. Germany received great numbers of Turkish workers between 1961 and 1973 and became the country that had the largest number of Turkish immigrants in Europe, with more than 600 thousand workers in 1973 (Abadan-Unat 2011).

In response to the recession following the first oil price shock, both Germany and Denmark ended the guest worker program in 1973. The termination of the guest worker program made it obvious to the labor migrants that leaving the host country would mean never returning. Those who wanted to stay decided to switch from a temporary and short-term migration to a more long-lasting settlement. The first groups of immigrants who arrived during 1961-1973 mainly consisted of male workers. In the following years, the female population increased through family reunification and, later, family formation when the children of the first-generation immigrants married a spouse from Turkey. As a consequence, the male-female ratios among Turkish immigrants reached a balance in the European countries (Manco 2007).

Beginning with the 1980s, the number of officially registered asylum seekers from Turkey in Western European countries tripled (from 15,000 in the early 1980s to 45,000 in the early 1990s). The outbreak of the ‘Kurdish conflict’ in Turkey and the inability to solve the conflict was a reason behind the growing number of asylum seekers. The 1990s were characterized by a considerable slowdown in emigration and asylum flows from Turkey to Europe, partly due to the restrictive immigration policies of the European receiving countries and due to the positive economic, social and political developments in Turkey itself. Meanwhile, the fall of the Iron Curtain was accompanied by opening a large reservoir of qualified but unemployed or underemployed workers from Poland, Romania, Hungary and other former communist countries who became the first choice for recruitment in Western Europe. Today, the inflow of Turkish citizens is decreasing, net migration is nearly zero or negative, and the stock of the Turkish immigrant community is declining (Fassmann and İçduygu

2013). People with Turkish origin or background are however still the biggest non-EU group in both Germany and Denmark.

The two host countries in our study differs in several structural aspects of their welfare states. In Germany, programs are mostly of insurance type with contributions as the dominant source of financing. Another fundamental characteristic is that benefits typically are related to individual earnings histories. In Denmark, programs are dominantly financed from general tax revenues with flat rate benefits in many programs.

In Germany, unemployment insurance, Old age pension and Early retirement pension are based on contributions during years with employment. Benefits are as mentioned typically earnings related and therefore contribute to an expected difference in poverty risk between immigrants and natives. Full Old age pension and Early retirement pension are based on respectively 45 and 35 years of employment. Over time the insider-outsider characteristics in the programs have been reinforced by tightening of rules, cutbacks and savings, cf. Büchel and Frick (2005). Finally, child benefits are progressive in the number of children in the family (Clasen (2005)). Considering the typical differences in the number of children in the family among natives and immigrants this might contribute to narrow a poverty difference between the two groups.

Denmark is – in principle – an example of the universalistic welfare state with the same rights and obligations for everybody with residence in the country. However, eligibility rules make entry to programs and coverage different between natives and immigrants. Eligibility for unemployment insurance benefits is determined by membership of an unemployment insurance fund and a sufficient employment history. Most of insured unemployed receiving unemployment benefits get a flat – maximum – benefit level, i.e. not earnings related. Old age pension and disability pension are universal, but eligibility and benefit levels depend on number of years of residence. Early retirement programs and labor market pension depend on employment experience. The low level of labor market participation among many immigrant groups contribute to create differences in poverty risk between natives and immigrants. Welfare benefits are in principle dependent on residence. However, in recent years there has been several policy changes reducing benefits for newly arrived persons with the purpose of creating stronger incentives to get a job. A difference in this respect between Denmark and Germany is the significantly higher floor in the wage distribution in Denmark. Denmark has no official or legal minimum wage, but collective agreements establish a fairly high minimum wage level for which an immigrant must qualify for entry to the job market on ordinary terms. Finally,

Denmark in contrast to Germany has child benefits that are proportional to the number of children in the family.

Germany and Denmark differ regarding their welfare state type, labor market structure and institutions. Thus, our study enables us to compare the effects of different welfare states, labor markets and institutions on the poverty risk in the two host countries for immigrants coming from the same home country. Earlier studies in the economics literature have looked at either all immigrant groups in a country or countries (Deding et al. 2010)), on a particular group of immigrants such as immigrant children (Galloway et al. 2015) or elderly immigrants (Jakobsen and Pedersen 2017). We contribute to the literature by focusing only on Turkish immigrants in Germany and Denmark and compare them in terms of poverty across the two host countries to natives and to Turks in Turkey. The main question in this paper is whether Turkish immigrants adapt to host countries and whether immigrant poverty rates converge to the rates for natives, or whether they stay like the rates in the source country, Turkey. In the next section we describe the data and methods being used.

4. Data and method

Data

We use nationally representative survey data from Turkey and Germany, and administrative register data from Denmark. For all three countries, the datasets that we use are the best available sources for household income. However, there is a fundamental selection problem in empirical studies in this area. Available data unfortunately do not make it possible to control for two related problems, i.e. who emigrates and the choice of country of destination conditional on migration.

The Turkish data are collected by the Turkish Statistical Institute (TURKSTAT) via the Survey of Income and Living Conditions (SILC). The questionnaire of the Turkish SILC was designed to provide target variables requested by European Union Statistical Office (EUROSTAT) for obtaining detailed information about income, poverty, social exclusion, and living conditions. Since 2006, the data have the structure of four-year rotating and overlapping panels (2006-2009 and 2010-2013). The selected households are interviewed for four consecutive years. Each year, about a quarter of the households are dropped from the sample and replaced by new households. Surveys are conducted face to face, using the computer assisted personal interview (CAPI) technique. Following data entry, income data collected by the survey are compared against administrative income, tax, and social security data, which are obtained based on the person's National Identification Number.

The German data come from the German Socio-Economic Panel (GSOEP), a big and unique survey-based panel dataset, which oversamples immigrants. We use data from the years 1984-2013. In 1984, guest worker families from Turkey were over-sampled. Between 1984 and 1994, new immigrants were included only if they moved into one of the pre-sampled households. In 1994 and later, new samples of immigrants were added to the GSOEP. Therefore, the immigrant population is better represented after 1994 than in years 1984-1994. In 1990, the Eastern states of Germany were added to the GSOEP; however, for consistency we only consider the Western part of Germany. Throughout the analysis, we apply the survey sample weights. The GSOEP data are collected under a survey rule censoring the disposable income within the 0-5 million Euros. (More detailed description of the GSOEP is available from (Burkhauser, Kreyenfeld, and Wagner 1997).) One problem with the GSOEP data is that, although the data have panel structure, the rate of annual attrition is quite high, which makes it difficult to study long-term poverty or poverty transitions.

The Danish data are panel data based on comprehensive administrative registers, compiled by Statistics Denmark, that cover the whole population of natives and immigrants. Individual data from several registers are merged using a unique person identifier. In the Danish data, disposable income figures are affected by administrative or tax law rules that result in a small number of people having deductions from earlier years that appear in the current year, thereby leading to a few observations (about 1-2% of all) with non-positive disposable incomes.

Method

We examine and compare five groups: Natives in the three countries (Germany, Denmark, and Turkey) and Turkish immigrants in the two host countries, Germany and Denmark. Our income concept is household disposable income. We adopt the OECD definition of household disposable income. Although the household is the economic unit, all analyses are based on individuals. In the Danish case, tax register information is the basis for income calculations, whereas in the Turkish and German data self-reported income is used.

Equivalent household disposable income is defined in the usual way by dividing total household disposable income by an equivalence scale. The scale that we adopt assigns a weight to each member of the household; a weight of 1 to the household head, 0.7 to all other individuals older than 14 (except

for the head) and 0.5 to all individuals 14 or younger (known as the “OECD scale”). Equivalent household disposable income is assigned to everyone in the household.

In each country and in each year, 60% of median equivalent household disposable income is set as the poverty threshold. According to this definition, all members of a household that lies below the poverty threshold are poor. This definition is based on annual incomes. Based on this definition, we generate descriptive statistics on annual (headcount) poverty rates for the years 1984-2013 for Germany and Denmark and 2006-2013 for Turkey. This gives us the opportunity to compare poverty rates across time and among the five groups that we defined above.

We calculate three poverty indices from the Foster, Greer and Thorbecke (1984) class, summarized as FGT(α): FGT(0) is the headcount poverty rate; FGT(1) is the average normalized poverty gap; FGT(2) is the average squared normalized poverty gap. Greater values of α indicate a greater degree of poverty aversion (or a higher sensitivity to large poverty gaps). We perform two types of decompositions of the poverty indices: Fairlie decompositions and poverty decompositions. The Fairlie decomposition technique is an extension of the classical Oaxaca-Blinder decomposition technique (Fairlie and Robb 2007)² that basically estimates the contributions of the control variables (or groups of control variables) in explaining the difference in poverty rates. Natives and immigrants differ in some observable characteristics (such as the number of children, or marital and education status). The decomposition shows us the extent to which the observable characteristics can explain the poverty difference between natives and immigrants. The difference in the poverty rate (FGT(0)) between natives and immigrants can be decomposed as follows:

$$\bar{P}_2 - \bar{P}_1 = \left[\sum_{i=1}^{N_1} \frac{F(X_{i,2}\hat{\beta}_1)}{N_1} - \sum_{i=1}^{N_2} \frac{F(X_{i,1}\hat{\beta}_1)}{N_2} \right] + \left[\sum_{i=1}^{N_1} \frac{F(X_{i,2}\hat{\beta}_2)}{N_1} - \sum_{i=1}^{N_2} \frac{F(X_{i,2}\hat{\beta}_1)}{N_2} \right], \quad (1)$$

where N_1 and N_2 are the numbers of observations in the two groups. In equation (1), the term in the first square brackets is the part due to differences in the distributions of observable characteristics and the term in the second square brackets is the part due to inter-group differences in the process that determines P . The second term also captures the portion of the difference in P due to differences in factors that are unobserved in the data, such as social or language skills. We are mainly interested in the first term, rendering the second term to a residual.

² The decompositions are performed using the ‘fairlie’ command in Stata.

The decomposition in equation (1) relies on using $\hat{\beta}$ of group 1 as weights in the first term and the distributions of the characteristics in group 2 as weights in the second term. Alternatively, the coefficients of group 2 and the distributions in group 1 could have been used as weights. As a third alternative, the pooled coefficients $\hat{\beta}^*$ can be used (which are obtained from the logit regressions that pool observations from the two groups). Since there is no theoretical guidance on which coefficients to use in the first term, we follow the third alternative and therefore estimate the first term as:

$$\left[\sum_{i=1}^{N_1} \frac{F(X_{i,2}\hat{\beta}^*)}{N_1} - \sum_{i=1}^{N_2} \frac{F(X_{i,1}\hat{\beta}^*)}{N_2} \right]. \quad (2)$$

The second type of decomposition, poverty decomposition, tells us the poverty rates, poverty shares and poverty risks within some sub-groups and allow us to see the differences between natives and immigrants at the sub-group level³. Here, we define sub-groups according to certain characteristics (households with or without children, the number of children in the household, the number of employed adults in households with children, age and education of the household head). The poverty share, and poverty risk of a particular sub-group are defined as follows:

Poverty share = Population share * FGT(0) in subgroup / overall FGT(0)

and

Poverty risk = Poverty share/ Population share.

5. Poverty indicators

In this section, we compare poverty rates across the five groups and over time during the 1984-2013 period. Figure 1 presents one-year poverty rates for natives and Turkish immigrants in Germany and Denmark, along with the rates for Turks in Turkey. As can be seen in the figure, immigrants in both host countries have much higher headcount poverty rates than natives. Among natives, about 8-12% in Germany and 7-10% in Denmark are poor. A slight upward trend over time is visible in the poverty rates of natives in both countries from about the turn of the century

Among immigrants, poverty rates in Germany have exceeded the rates for natives in all years. They fluctuated between 25% and 40% in the 1980s and 1990s. After 2000, they remained in the 30-42% range. In Denmark, immigrant poverty rates, which were around 7% in 1980s, rose to around

³ The decompositions are performed using the 'povdeco' command in Stata.

20% by 1990, around 30% by 2000, and around 35% by 2010. The poverty rates for Turks in Turkey were about 25% in the 2006-2013 period, somewhere in between the rates for natives and immigrants.

From the early 1990s poverty rates among immigrants from Turkey have been slightly higher in Germany than in Denmark, with the average difference being small and consequently the gap towards natives has been at about the same level. The steep increase from the mid-1980s in Denmark is surprising. Part of the explanation of this, relative to the situation in Germany, might be that immigration to Denmark occurs later than in Germany. Initially, nearly all the immigrants were men, only later followed by women as tied movers, family reunification or marriage. From 1984 on, the women/men ratio among immigrants from Turkey in Denmark increases from about 0.6 to about 0.9 and stabilizes between 0.9 and 0.95 from the late 1990s (Statistics Denmark, Statistikbanken). This shift in the gender ratio may explain part of the strong increase in poverty rates in Denmark from 1984 while Germany may have gone through the same phase at an earlier time. Further, immigration from Turkey to Denmark was stationary during the 1990s followed by a decline to about half the level from the early 2000s. Because of this profile, the average age among Turkish immigrants 18-80 years old shows a steep increase from 35.1 to 44.0 from 2000 to 2013; the share of the 65+ years old increases from 3.4 to 8.0 percent. As demonstrated in Jakobsen and Pedersen (2017) this has an upwards impact on the overall poverty rate.

Figure 1: (Headcount) Poverty rates in Germany and Denmark, natives and Turkish immigrants, and Turks in Turkey, ages 18-64

Note: Years 1990 and 1991 are skipped in the German data because of problems with immigrant classification in the years of integration.

Figure 2. Gaps in labor force participation rates between immigrants from Turkey and natives, separately by gender, 18-64 years old, Denmark and Germany

While Figure 1 shows about the same gap between immigrants and natives in the two host countries, this is not the case when looking at the labor force participation rates -a concept that is closely related to poverty status- separately for women and men, as shown in Figure 2. For men, the initial job-related immigration is still evident in the mid-1980s where labor force participation is as high or higher among male immigrants than among natives. This shifts to a gap of about 10 percentage points in Denmark and 2-4 percentage points in Germany until the gaps end up at about the same

level of 4-6% in 2013. Therefore, for men the native-immigrant gap in labor force participation rates was higher in Denmark than in Germany until 2007, after which we observe a rank reversal followed by a diminished gap by year 2013. For women the picture is the opposite: Throughout the period the gap is lower in Denmark than in Germany. As labor force participation for women is higher among natives in Denmark than in Germany for most of the period, the pattern in Figure 2 seems to reveal an adaptation among female immigrants from Turkey to the labor force participation among native women in the two host countries, i.e. a higher labor force participation in Denmark.

6. Decomposition of poverty differences

Table 1 presents the results from a Fairlie decomposition for Germany and Denmark in 2013. The decompositions tell us what extent of the poverty difference between natives and immigrants can be explained by differences in the observed characteristics of the individuals. The results are based on full samples and rely on a full set of explanatory variables⁴ (sex, age, marital status, the number of children in the household, education, and being in the labor force).

The table shows us, first, the difference between the predicted poverty rates of natives and immigrants, and the percent of the difference explained by the variables in the regressions. In Germany, the explanatory variables can explain 44.4% of the difference in poverty rates (-10,8 relative to -24.4%), which means that the remaining 55.6% is explained by the differences in the way the characteristics are linked to poverty and the differences in unobserved factors. In Denmark, observed characteristics can explain only 19.3% of the difference in poverty rates (-5.2 % relative to -27.1%). The tables also show us the contribution of each explanatory variable. In Germany, differences in educational attainment and in the number of children are the most important factors, which explain 66.57% and 53.18% of the difference, respectively. Differences in marital status and being in the labor force act, in fact, to reduce the poverty difference between natives and immigrants, and not to increase it. These are not surprising, given that Turkish male immigrants in Germany have similar labor force participation rates to natives and most of the immigrants are married; both factors are negatively correlated with being poor. In Denmark, as in Germany, differences in educational attainment and in the number of children are important. But, unlike in Germany, age is the most important factor in explaining the differences in poverty (with a share of 63.78%) and being in the labor force is also important (with a share of 18.81%).

⁴ Results from the probit estimations of the poverty risk are available on request.

Table 2 presents poverty decomposition statistics by immigrant status in the two host countries and in Turkey in 2013 (the final year of analysis) and in 2008 (the last year before the Great Recession). The poverty indices FGT(0), FGT(1), and FGT(2) confirm that poverty is more prevalent and more severe among Turkish immigrants than natives in both host countries.⁵

We observe some similar features of immigrants in the two host countries. In both countries the population share, and the poverty share of Turkish immigrants has been slightly increasing over time. However, dissimilarities are also seen: From 2008 to 2013, the poverty rate (FGT(0)) decreased among immigrants in Germany, whereas it increased among immigrants in Denmark (also see Figure 1) in accordance with the cyclical profiles in the host countries where the negative impact from the great recession was harder in Denmark, resulting in greater divergence in poverty rates between natives and immigrants in Denmark. In Turkey, poverty statistics are in between the natives and immigrants in the two countries, as shown previously in Figure 1.

Table 1. Fairlie decomposition, Germany and Denmark, 2013

	<i>Germany</i>			<i>Denmark</i>		
Predicted poverty rate (natives)	0.102			0.087		
Predicted poverty rate (immigrants)	0.346			0.358		
Difference	-0.244			-0.271		
Explained difference	-0.108			-0.052		
Percent explained	44.4			19.3		
	Coefficient	%	p-value	Coefficient	%	p-value
<u>Contributions from inter-group differences in:</u>						
Male	0.000	0.06	0.90	0.000	0.07	0.00
Age	-0.004	3.35	0.42	-0.033	63.78	0.00
Number of children in HH	-0.058	53.18	0.00	-0.004	7.14	0.00
Marital status	0.020	-18.71	0.00	0.006	-11.79	0.00
Education	-0.072	66.57	0.00	-0.012	22.07	0.00
In labor force	0.005	-4.55	0.00	-0.010	18.81	0.00
N	20,432			4208253		

Notes: The ‘%’ column shows the percentage of the explained difference that is attributable to a particular group of explanatory variables.

Source: Authors’ estimations based on Danish register data and German SOEP data (including all in ages 18 and up).

⁵ A property of the FGT(2) index is that, compared to the FGT(1) index, it assigns a higher weight to incomes that are farther below the poverty threshold. Compared to German data, which are censored from below at zero, the FGT(2) index is higher in the Danish data. Interestingly, the FGT(2) index takes very large values for natives in Denmark, which can be attributed to the rules that allow deductions from earlier years to appear in the current year, thus resulting in a small number of non-positive disposable incomes.

Table 2. Poverty in the five groups in 2008 and 2013

2008	Germany		Denmark		Turkey
	Natives	Immigrants	Natives	Immigrants	
Headcount poverty rate -FGT(0) (%)	11.22	43.48	8.83	32.62	25.20
Poverty gap -FGT(1) (%)	2.48	10.01	5.13	9.01	8.02
Squared poverty gap -FGT(2) (%)	0.94	3.76	99.39	5.63	4.50
Average income	18688	10942	26702	18244	3564
Average income among the poor	7123	7040	6007	10381	1076
Average poverty gap among the poor	2023	2106	8335	3961	503
Population share (%)	97.87	2.13	98.99	1.01	-
Poverty share (%)	92.21	7.79	96.37	3.63	-
Poverty risk	0.94	3.65	0.97	3.59	-
2013	Germany		Denmark		Turkey
	Natives	Immigrants	Natives	Immigrants	
Headcount poverty rate -FGT(0) (%)	11.83	38.15	8.78	36.93	22.17
Poverty gap -FGT(1) (%)	2.57	9.68	2.87	9.94	7.31
Squared poverty gap -FGT(2) (%)	0.95	3.72	41.24	5.54	3.59
Average income	20474	12632	31498	20076	4250
Average income among the poor	7731	7375	10858	11792	1533
Average poverty gap among the poor	2153	2509	5274	4341	552
Population share (%)	97.37	2.63	98.87	1.13	-
Poverty share (%)	91.98	8.01	95.43	4.57	-
Poverty risk	0.94	3.05	0.96	4.06	-

Source: Authors' calculations based on German SOEP data and Danish register data.

Notes: Includes all ages 18 and up. Incomes are expressed in euros based on mid-year exchange rates. Weighted statistics are presented for Germany and Turkey.

Poverty share= population share* FGT(0) in subgroup / overall FGT(0).

Poverty risk= poverty share/ population share.

Next, we decompose poverty rate (FGT(0)) in 2008 and 2013 by population subgroups. We define subgroups by family type, labor market status, and age and education of the household head. Here, the aim is to look beyond overall poverty and identify the specific subgroups in Germany and Denmark that are more vulnerable to poverty. The results are presented in Tables 3 and 4.

The results reveal strikingly high poverty rates in some subgroups. For example, Table 3 shows that in 2013 among immigrants in Germany, 54.88% of households with children and only one adult and 50.67% of larger households (with more than two children or two adults) are poor (panel a). Moreover, 64.14% of households in the 60-64 age group and 55.72% of households in the 65+ age group are poor (panel c). For these subgroups, poverty rates were high in 2008 as well.

In some subgroups, both natives and immigrants face high poverty risk. For example, the poverty risk of households with children and only one adult is 4.38 for immigrants and 3.12 for natives (Table 3, panel a, 2013). In general, poverty risk is higher among immigrants than natives, but some subgroups face really high poverty risk unlike their equivalent native groups. For many immigrant groups in Germany, poverty risk is greater than 3, which means that the poverty share of the group is more than 3 times its population share. For example, in larger households poverty risk is 4.05 among immigrants, but 2.45 among natives. In households with children where only one adult is employed, the risk is 3 among immigrants, but 1.28 among natives. In households with a head who is 60 or older, poverty risk is 4.00-4.61 among immigrants, but only 0.82-0.95 among natives. Moreover, in households where the head has 16 or more years of education, poverty risk is 3.03 among immigrants, but 0.48 among natives. Comparing 2013 to 2008, in Germany, we see no substantial changes in the poverty risk of immigrants relative to the risk for natives.

Table 4 shows that among immigrants in Denmark, some subgroups face very high poverty rates, exceeding 50%. For example, among immigrant households with children, 56.41% of those with only one adult, 53.32% of those with only one employed adult, and 73.14% of those with no employed adult are poor (panel b, 2013). Grouped according to the age of the household head, 58.76% of households in the 65+ age group are poor (panel c, 2013).

Similar to the results in Germany, in Denmark, poverty risk statistics for immigrants show us that some subgroups face much higher poverty risk than the natives in the same subgroup. In some sub-groups, poverty risk is high both for natives and immigrants. For example, the poverty risk of households with children with no employed adult is 8.04 for immigrants and 6.22 for natives (panel b, 2013); the poverty risk of households with a head younger than 30 is 4.48 for immigrants and 3.51 for natives (panel c, 2013).

In some other groups, the risk is substantially higher among immigrants than natives. For example, in households with children and only one adult poverty risk is 6.20 among immigrants, but 3.17 among natives; in larger households, poverty risk is 3.51 among immigrants, but only 0.38 among natives (panel a, 2013). In households with children where only one adult is employed, the risk is 5.86 among immigrants, but 1.67 among natives (panel b, 2013). In households with a head who is 65 or older, poverty risk is 4.85 among immigrants, but only 0.37 among natives (panel c, 2013). Moreover, in households where the head has less than 9 years of education, poverty risk is 3.85 among immigrants but 1.34 among natives (panel d, 2013). Comparing 2013 to 2008, in

Denmark, as in Germany, we see no substantial changes in the poverty risk of immigrants relative to the risk for natives.

To summarize the results of poverty decomposition analyses, we find that, on average, in both host countries the poverty risk for immigrants is 3-4 times the risk for natives (Tables 3 and 4). Some immigrant subgroups are especially vulnerable. In both countries, immigrant households with children face high poverty risk. The following immigrant households are at particularly higher poverty risk compared to natives: households with 2 adults and 1-2 children; with children and with only one employed adult; with more than 2 adults or 2 children. The risk for such families is lower in Germany than it is in Denmark, partly because the German program for child benefits is progressive in the number of children, whereas the Danish program is proportional in the number of children.

On the other hand, regardless of immigrant status, in households with children, having only one adult or having no one employed increases the poverty risk. In both countries, elderly immigrants face higher poverty risk than elderly natives. It is striking that in the two countries with different welfare regimes, household types that face high poverty risk are the same.

As we have seen before, the Fairlie decomposition analyses have shown that the larger portion of the immigrant-native poverty difference is related to differences in unobservables or the differences in how the market values observed characteristics or discrimination. However, observed characteristics, such as age or the number of children in the household, are still of crucial importance in identifying immigrant households that are under a high poverty risk.

Table 3. Poverty among natives and Turkish immigrants in Germany, decomposed according to household type (2008 and 2013)

		2008						2013					
		Poverty rate (FGT(0))		Poverty share		Poverty risk		Poverty rate (FGT(0))		Poverty share		Poverty risk	
		Native	Immig	Native	Immig	Native	Immig	Native	Immig	Native	Immig	Native	Immig
	Single-adult hh, no children	15.58	53.42	36.48	1.02	1.31	4.48	17.14	38.73	39.18	1.28	1.37	3.09
	Childless couples	6.82	60.28	26.80	3.52	0.57	5.06	6.53	42.25	24.45	2.60	0.52	3.37
a	Hh with 1 adult and child(ren)	49.41	32.65	10.07	0.19	4.15	2.74	39.11	54.88	8.61	1.37	3.12	4.38
	Hh with 2 adults and 1-2 children	10.01	21.61	15.73	1.56	0.84	1.81	11.05	25.42	15.18	1.84	0.88	2.03
	Larger households	18.16	63.31	3.14	1.50	1.52	5.31	30.62	50.67	4.57	0.93	2.45	4.05
	Hh with children; > 1 adult employed	5.23	21.59	5.65	0.96	0.44	1.81	6.52	7.98	5.21	0.20	0.52	0.63
b	Hh with children; only 1 adult employed	19.89	35.35	13.85	1.74	1.67	2.96	16.15	37.86	9.44	0.66	1.28	3.00
	Hh with children; no one employed	58.11	63.83	9.23	0.59	4.87	5.35	39.86	45.24	13.47	3.32	3.16	3.58
	HH head younger than 30	29.62	64.44	18.33	0.58	2.23	4.86	31.49	41.28	16.70	0.83	2.26	2.96
c	HH head 30-45	11.93	26.84	23.77	1.87	0.90	2.02	13.68	36.40	20.32	2.27	0.98	2.61
	HH head 46-59	11.49	50.71	20.53	0.95	0.87	3.83	10.93	25.41	21.84	0.95	0.78	1.82
	HH head 60-64	10.56	55.42	5.50	0.73	0.80	4.18	13.21	64.14	7.54	0.43	0.95	4.61
	HH head 65+	10.58	62.34	26.37	1.37	0.80	4.70	11.37	55.72	27.79	1.32	0.82	4.00
	Education HH head <=9 years	27.38	48.46	22.13	2.80	2.07	3.66	32.85	44.04	23.39	2.59	2.36	3.16
d	Education HH head 10-12 years	12.19	28.49	51.94	1.68	0.92	2.15	12.47	31.69	49.17	1.89	0.90	2.28
	Education HH head 13-15 years	11.56	19.41	12.51	0.10	0.87	1.46	11.68	39.23	13.30	0.26	0.84	2.82
	Education HH head >=16 years	6.29	85.68	7.91	0.93	0.47	6.46	6.74	42.21	8.33	1.07	0.48	3.03

Notes: Includes all ages 18 and up. Weighted statistics are presented. Poverty share= population share* FGT(0) in subgroup / overall FGT(0).

Poverty risk= poverty share/ population share. Source: Authors' calculations based on German SOEP data.

Table 4. Poverty among natives and Turkish immigrants in Denmark, decomposed according to household type (2008 and 2013)

	2008						2013					
	Poverty rate (FGT(0))		Poverty share		Poverty risk		Poverty rate (FGT(0))		Poverty share		Poverty risk	
	Native	Immig	Native	Immig	Native	Immig	Native	Immig	Native	Immig	Native	Immig
Single-adult hh, no children	15.98	48.16	43.00	0.79	1.76	5.31	18.16	52.85	51.40	1.20	2.00	5.81
a Childless couples	7.31	31.94	25.39	0.54	0.81	3.52	5.52	28.86	19.42	0.62	0.61	3.17
Hh with 1 adult and child(ren)	25.72	52.70	4.63	0.14	2.83	5.81	28.86	56.41	5.45	0.17	3.17	6.20
Hh with 2 adults and 1-2 children	7.21	34.97	8.86	0.65	0.79	3.85	7.12	38.66	8.28	0.79	0.78	4.25
Larger households	4.34	26.63	14.49	1.51	0.48	2.93	3.44	31.91	10.87	1.79	0.38	3.51
Hh with children; > 1 adult employed	4.02	17.62	11.19	0.72	0.44	1.94	2.11	19.29	5.36	0.67	0.23	2.12
b Hh with children; only 1 adult employed	17.07	51.32	8.21	0.92	1.88	5.66	15.22	53.32	8.11	1.07	1.67	5.86
Hh with children; none employed	50.37	68.75	5.49	0.52	5.55	7.58	56.63	73.14	8.78	0.81	6.22	8.04
HH head younger than 30	32.30	42.44	38.83	0.86	2.82	3.70	42.47	54.28	50.09	1.15	3.51	4.48
c HH head 30-45	10.00	36.46	24.29	1.28	0.87	3.18	10.78	39.75	21.81	1.43	0.89	3.28
HH head 46-59	5.33	27.75	11.09	0.36	0.47	2.42	5.85	31.75	11.93	0.59	0.48	2.62
HH head 60-64	4.14	29.84	3.34	0.10	0.36	2.60	3.44	27.37	2.29	0.07	0.28	2.26
HH head 65+	9.16	76.93	19.50	0.36	0.80	6.71	4.54	58.76	10.29	0.36	0.37	4.85
Education HH head <=9 years	14.64	41.01	40.97	1.60	1.29	3.62	16.14	46.34	38.74	2.02	1.34	3.86
d Education HH head 10-12 years	11.32	35.40	42.89	0.71	1.00	3.13	12.48	39.89	45.50	0.98	1.04	3.32
Education HH head 13-15 years	7.24	26.44	11.75	0.16	0.64	2.34	6.73	26.65	10.70	0.21	0.56	2.22
Education HH head >=16 years	3.40	20.18	1.91	0.02	0.30	1.78	2.99	13.04	1.84	0.02	0.25	1.09

Notes: Includes all ages 18 and up. Poverty share= population share* FGT(0) in subgroup / overall FGT(0). Poverty risk= poverty share/ population share. Source: Authors' calculations based on Danish register data.

7. Conclusions

In conclusion, poverty rates among immigrants from Turkey do not converge to the rates among natives in the two host countries. They are slightly higher among immigrants in Germany than in Denmark for most of the last 20-25 years. However, the difference is quite small considering the differences in welfare state type and labor market structures between Denmark and Germany. Further, the household types facing high poverty risk are the same in the two countries.

The decomposition analyses show that in Germany, compared to Denmark, a greater part of the poverty gap relative to natives can be explained by the characteristics of the Turkish immigrants. In Denmark, in contrast, the poverty gap between immigrants and natives is more closely related to the combined influence of market valuation of characteristics and discrimination.

By gender, it is interesting to notice that Turkish women are more active in the Danish labor market where the native women for most of the period we study have labor force participation rates above the level for German women.

One clear policy conclusion is that the poverty gap reflects that the labor market integration is low in both host countries calling for instruments to overcome the combined barriers from lack of qualifications and fairly high entry wages.

Finally, we find a clear impact from the difference in child family benefits where the German program is progressive in the number of children in the family in contrast to proportionality in the Danish program. Finally, the policy rule regarding fractional old age pension reflecting time of residence in the host country is clearly visible in Denmark as part of the explanation of the increase in the poverty gap along with a steeply increasing average age among Turkish immigrants in recent years.

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