

Understanding the immigrant-native gap in childcare use: An empirical exploration for 21 European countries

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Abstract

In this contribution, we examine whether and why there is a gap in the use of formal childcare services between immigrant and native families across 21 European countries. We focus on three sets of potential determinants: (1) social class, education and labour market position; (2) immigrant-specific factors such as norms in the region of origin, citizenship acquisition and length of stay in the country of residence; and (3) contextual factors such structural constraints impeding access to childcare and traditional norms on motherhood in the region of origin. Drawing on data from the 2010 ad hoc module of the EU Labour Force Survey, we find evidence for an immigrant-native gap in formal childcare use. Adjusted for social class position, education and maternal employment, immigrant families are less likely to use childcare compared to native families across European countries. However, there are important cross-country differences in the size of this gap. The study also provides evidence for immigrant-specific explanations: acquiring citizenship and staying longer in the country of residence increases the probability to use childcare, while the strength of traditional norms in the region of origin reduces the probability to use childcare. Finally, we find that structural barriers to childcare use negatively affect childcare use for both native and immigrant families. Removing barriers to childcare use in terms of availability and affordability will benefit everyone.

Keywords

Childcare, immigration, inequality, immigrant-native gap, norms, welfare state

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Introduction

In this article, we set out to examine and to explain if and why there is a gap in the use of formal childcare services (henceforth ‘childcare’) between immigrant and native families across European countries. Formal childcare services are government-regulated services, including certified childminders, family day care, childcare centers and preschool. We aim to further our understanding of the mechanisms driving such potential gap. In doing so, we contribute to the discussion on two salient political and academic topics: the expansion of childcare in European welfare states and the social and economic integration of immigrants.

First, the expansion of childcare for young children is a much-debated issue in scholarship on welfare state change. Until the 1990s, only Nordic countries and, to a certain extent, France and the Benelux reached high rates of childcare enrollment. Two decades later, European countries converged in terms of public spending on childcare services and participation in childcare services (Van Lancker, 2018). Spending on childcare and coverage of children aged 0–2 increased in almost all European countries, even during the Great Recession of 2008, although there are still important cross-country differences (van Kersbergen and Kraft, 2017). In many countries, childcare expansion was buoyed by the so-called Social Investment (SI) strategy. In contrast to traditional, compensatory policies such as unemployment benefits, social investment emphasizes the importance of mobilizing and improving skills (Garrizman et al., 2018). One of the main tenets of the approach is that investing in young children by means of high-quality childcare yields both short- and long-term benefits in terms of human capital accumulation for children (Burger, 2010). These investments are expected to be particularly beneficial for disadvantaged children in terms of school readiness and (non-)cognitive development (Leseman, 2009).

Second, how social and labour market policies should be deployed to achieve social and economic integration of immigrants in European welfare states is a contentious issue. Many immigrants have a disadvantaged position in the labour market in their countries of destination. The unemployment rates of immigrants, in particular of non-European Union descent, are much higher than those of natives, and their employment rates are usually much lower (Heath et al., 2008; Eurostat, 2020). Therefore, fostering the integration of immigrant children through childcare can be a sensible policy strategy (Magnuson et al., 2006). Previous research showed that the educational attainment of minorities is one of the most important predictors of their longer-term integration (Cebolla-Boado and Finotelli, 2015). In particular, time spent in preschool helps children with migrant backgrounds to improve language skills (Klein and Becker, 2017), and it has positive effects on both academic and socioemotional school-readiness measures (Gottfried and Kim, 2015).

Yet, previous research also showed vast socio-economic inequalities in the use of childcare (Van Lancker, 2013; Pavolini and Van Lancker, 2018; Kulic et al., 2019). The problem is that inequalities in the use of childcare will translate into inequalities in education and in later life since especially children born in advantaged circumstances also benefit from childcare while those who need it the most are least likely to benefit. Studies examining social stratification in childcare use, be they comparative or country-specific, usually focus on social class, income, or educational level as a marker of the social status of the household. Although ethnic inequality in education is a much-studied issue (Kao and Thompson, 2003; Levels et al., 2008; Borgna and Contini, 2014), few scholars focused on ethnic inequality in the early years and most evidence is country-specific and descriptive. This article contributes to the debate on ethnic inequalities and childcare use in three ways. First, it is the first comparative European study that goes beyond a mere descriptive approach. Second, it tests for Europe the main mechanisms found in the North-American literature on immigration and childcare use. Finally, it develops an integrated perspective on immigrant-specific factors and their interplay with the role of the state.

Theory and mechanisms

The majority of studies find gaps in childcare use related to the immigration background of children. In Germany, several studies were conducted on childcare attendance amongst children with a migration

background, finding differences in preschool attendance amongst native and immigrant households (Biedinger et al., 2008; Moll De and Betz, 2014; Schober and Spiess, 2013; Stahl et al., 2018). Similar results were obtained in other European countries, for example, Vandenbroeck et al., 2008 for Belgium, Driessen (2004) for the Netherlands, Abrassart and Bonoli (2015) for Switzerland and Sainsbury (2019) for Sweden.

Jehles (2017) is the only scholar so far adopting a broad European comparative perspective, drawing on the 2012 OECD *Programme for International Student Assessment (PISA)* data. PISA includes a question on the number of years students were enrolled in childcare or preschool before they entered school. Jehles (2017) finds not only that native students are more likely to have attended childcare compared to immigrant students but also that the differences between the two groups increased over time.

A more extensive body of research in the United States shows that migrant children are underrepresented in childcare in the United States (for a review, see Johnson et al., 2017). The US literature provides several insights into the mechanisms that may explain such immigrant-native gap in formal childcare use.

First, older studies showed that the immigrant-native gap in childcare is in fact a *social class penalty*, not an immigration penalty, as the gap disappeared once controlling for social class and the employment status of the mother (e.g. Kahn and Greenberg, 2010). However, more recent studies find that part of the effect remains even after taking due account of social class and employment position (Miller et al., 2015).

Second, *immigrant-specific factors* seem to play a role. Factors such as citizenship status, language proficiency and age at immigration emerge as important to explain access to childcare (Johnson et al., 2017). The hypothesis is that these factors encourage a process of integration, in turn increasing the probability to enroll. Several studies in the United States also found that the region of origin of immigrants played a role. This factor however tends to fade once controlled for socio-economic characteristics and labour market participation (Vesely, 2013; Fram and Kim, 2008). Few studies in Europe tested some of these factors. Lokhande (2013) provides evidence that children from second-generation immigrants do not differ in Germany from natives in terms of childcare enrolment rates. Seibel and Hedegaard (2017) find in a comparative study on the Netherlands, Germany and Denmark significant differences in the attitudes of immigrants and natives towards childcare but also that immigrant attitudes are at the same time heavily influenced by native norms. Where the native norm is in favour of childcare use, such as in Denmark, immigrants are also more likely to be in favour, compared to countries such as Germany where the native norm is less in favour of formal childcare. Still, even in Denmark immigrants appear less supportive of childcare than natives.

Third, the institutional context was identified as an important factor to understand inequalities in childcare use. For instance, Van Lancker and Ghysels (2016) showed that social inequalities (by household income or educational level) in childcare use are less important in countries with a high level of publicly provided or subsidized childcare services and a legal entitlement to a childcare place, while inequalities are more salient in countries in which long well-paid leaves are available and in which childcare costs are high. Public childcare policies might affect immigrants more than natives in several ways. Johnson et al. (2017) list some of these potential mechanisms for the United States: lack of availability; problems of affordability; the fact that childcare facilities generally prioritize working parents with stable labour contracts and predictable working hours, while immigrant parents, especially mothers, tend to have atypical working contracts and to be exposed to atypical working hours more often than native ones. Country-case studies in Europe corroborate the role played by public supply, costs and regulation for understanding childcare decisions of immigrant households (e.g. Abrassart and Bonoli, 2015 on Switzerland, Sainsbury, 2019 on Sweden, Arlotti et al., 2015 on Italy).

In this article, we bring together individual, household and contextual explanations in an integrated model. Table 1 summarizes the sets of mechanisms that we will empirically test: individual and household-related factors including socio-economic position (social class and level of education), employment and immigrant-specific factors on the one hand, and contextual variables including the institutional context and care culture on the other.

Table 1. Potential determinants of an immigrant-natives gap in formal childcare.

Individual/Household	Contextual
Socio-economic position: <ul style="list-style-type: none"> • Educational level • Social class • Maternal employment 	Institutional context: <ul style="list-style-type: none"> • Structural problems in childcare supply
Immigrant-specific: <ul style="list-style-type: none"> • Citizenship • Length of stay • Region of origin 	Care culture: <ul style="list-style-type: none"> • Dominant norms on motherhood in country of residence • Dominant norms in region of origin

Previous literature and hypotheses

The role of social class, education and employment

It is a robust finding that childcare service use is riddled with inequalities in most OECD and European Union (EU) countries, with few exceptions (Denmark, Iceland and to a lesser extent Sweden) (Van Lancker, 2013; Krapf, 2014; Greenberg, 2011; Blossfeld et al., 2017). The use of childcare amongst children below three years old is associated with the social position of their parents. In most countries, having parents with a manual (often unskilled) occupation, a low level of education, or living on low family incomes are good predictors of lower probabilities to access childcare, compared to those households where parents have skilled non-manual occupations, university degrees or higher incomes. Immigrants in European countries, in particular those coming from non-Western ones, are overrepresented in manual occupations, are more often low-skilled than natives and are more likely to earn low wages and to be living on low incomes (Kogan, 2006; Bergh, 2017). It is an open question whether educational level or social class is the most relevant predictor for childcare use. Although most previous studies adopted a social class perspective, others argue that educational level is more relevant since it is also associated with child-rearing practices and parenting styles that go beyond social class (Moll De and Betz, 2014; Brillì et al. 2017). Following the aforementioned literature on the issue, our first hypothesis is as follows:

H1: Social class and education reduce the immigrant-native gap in childcare use.

There is relatively consistent literature that shows how mothers' labour market position is a good predictor of the household decision to use childcare (Uunk et al., 2005). However, in the majority of European countries, maternal employment rates are consistently lower for immigrant households compared with natives. Moreover, if mothers with an immigration background work, they are more likely to be engaged in precarious and flexible forms of employment (Prosser, 2016). Since childcare provision generally prioritizes working parents with stable and predictable working hours, flexible or precarious employment might be an impediment to childcare use as well. Therefore, our next hypotheses are as follows:

H2a: Maternal employment reduces the immigrant-native gap in childcare use, net of social class and education.

H2b: Immigrant households with working mothers are less likely to use childcare compared to native households with a working mother.

Immigrant-specific explanations

Some of the aforementioned earlier studies suggest a significant role for immigrant-specific factors to explain gaps in childcare use. These factors include citizenship status, duration of stay since immigration and region of origin effects.

Many studies provide evidence for a so-called citizenship premium for immigrants in European countries. Immigrants who acquired citizenship tend to engage more in countries of residence and have better social outcomes in general and better labour market outcomes in particular, compared to those without citizenship (OECD, 2011; Hainmueller et al., 2015). In some countries, citizenship might even be a requirement to qualify for public or subsidized childcare services. Given the association between citizenship and maternal employment, we put forward the hypothesis that:

H3: Households with immigrants who acquired citizenship of the country of residence are more likely to use childcare compared to households with immigrants without citizenship, net of maternal employment, social class or education.

Since acquiring citizenship depends not only on migrants' choices and characteristics but also on migration policies regulating access to citizenship, duration of stay and region of origin are two variables more strictly related to cultural norms, integration and welfare state attitudes. In this respect, two theoretical perspectives might be relevant for understanding differences in childcare use between natives and immigrants. Theories of sociocultural integration argue that immigrants gradually absorb the values and norms that predominate in their country of residence (van Tubergen, 2007), including those related to women's paid work (Breidahl and Larsen, 2016) and welfare attitudes (Reeskens and van Oorschot, 2015). However, Portes and Zhou (1993) argue that such acculturation seems to occur at varying rates for different types of socioeconomic groups.

In contrast, theories of divergence predict that differences between first-generation immigrants and natives persist into the second generation. Distinctive social values and norms are enduring and deep-rooted within each nation, shaped by collective histories, common languages and religious traditions. Therefore, immigrants are unlikely to abandon their cultural roots when they settle in another country. Migrants who maintain more ties with and identify more with their communities of origin could also retain the values characteristic of these origins and thus remain the most distinct from the mainstream (Reeskens and van Oorschot, 2015; Norris and Inglehart, 2012). Seibel and Hedegaard (2017) showed that country of origin effects partly explain the differences in attitudes towards childcare between natives and immigrants, despite the fact that there is strong correlation between these attitudes. It is clear that both processes of integration and divergence might influence immigrants' preferences to use childcare (Wimmer and Soehl, 2014). Therefore, we put forward the following two hypotheses:

H4: Immigrants who have been longer in the country of residence are more likely to adopt a similar childcare use as natives compared to immigrants who arrived more recently, net of maternal employment, social class or education.

H5: Immigrants born in regions with norms on motherhood closer to norms in the resident country are more likely to use childcare compared to immigrants born in regions with more distant norms, net of maternal employment, social class or education.

Structural constraints

In the literature, the last set of explanations at the macro-level is put forward to explain gaps in childcare use. These are commonly referred to as 'institutional' explanations. In short, this strand of the literature argues that many people want to use childcare but cannot because of constraints such as a lack of available and affordable places. Recently, for instance, Pavolini and Van Lancker (2018) demonstrated that differences between social classes in the probability to use childcare in European countries are more

strongly related to constraints in the provision of care (rationed availability, cost of the fees) than to cultural preferences, expressed in terms of traditional norms on motherhood. Although cultural norms play a role in shaping the work-care decisions of families, how institutions and policies shape the availability and affordability of childcare is key to understand the social gap in childcare use (see also Allen, 2003; OECD, 2006). Given the fact that immigrants usually occupy a more vulnerable position in their country of residence, we put forward our final hypothesis:

H6: Immigrant households are more affected than natives are by structural constraints in the supply of childcare, net of maternal employment, social class or education.

Data, variables and analytical strategy

Sample

In this study, we draw on the 2010 wave of the *European Union Labour Force Survey* (EU-LFS). The EU-LFS is a household sample survey providing quarterly and annual data on people aged 15 and over living in private households in European countries. The 2010 wave includes an ad hoc module on 'work and family reconciliation' with questions on the use of childcare, leave, and on the barriers respondents face in attaining paid employment. This dataset has the advantage of sufficiently large sample size with information on immigration status and childcare use.

The sample is restricted to households with the youngest child below the age of 6. Immigrant households are defined as families in which at least one of the parents is foreign-born. The 2010 EU-LFS was fielded in 27 European member states, but we exclude countries in which the immigrant category includes <30 respondents (see Reeskens and van Oorschot, 2015 for a similar approach). This leaves us with a total sample size of 47,366 households across 21 countries. Supplemental Table A1 in the online annex shows the distribution of immigrant households per country. The share of immigrant families with young children ranges from about 5% in Hungary, Lithuania, Czech Republic and Finland, over about 25% in the United Kingdom, the Netherlands, Belgium, Ireland and Spain, to 71% in Luxemburg. The sample is complemented with data drawn from the European Values Survey (EVS), the World Values Survey (WVS) and the International Social Survey Program (ISSP) to compute aggregated variables on dominant norms on motherhood.

Dependent variable

The dependent variable is the use of formal childcare. This includes certified childminders or family daycare, preschool and childcare centers, apart from compulsory school. The respondents are asked whether they have used formal childcare services for their youngest child and if so, how many hours in a usual week. The variable is dummy coded, reflecting whether families have or have not used formal childcare for their youngest child.

Independent variables

The dataset includes information on the length of stay in the country of residence, whether one has acquired citizenship, and on the region of origin. We aggregate these variables at the household level. In the case of a household in which both a native and a foreign-born parent live, the variables are coded based on the citizenship status of the foreign-born parent. We create a dummy variable *citizenship* (1 = yes) to reflect whether at least one of the foreign-born parents is a citizen in the country of residence. For *region of origin*, the EU-LFS dataset includes a variable on the respondents' country of birth aggregated into 15 groups. In order to have a sufficient number of observations, we further reduce this to eight categories: native born (reference) and seven regions of origin. These regions are Western Europe, Central and Eastern Europe, other developed economies such as Australia, Canada, Korea, the United States,

Middle East and Northern Africa (MENA), Central and Southern Africa, Latin America, India and East Asia. Supplemental Table A3 in annex shows the distribution of immigrant households by region of origin for each country. For *length of stay*, we include the following categories: being a native (reference), less than 5 years, 5–9 years, 10–19 years, 20 or more years. In case both parents (if applicable) are foreign-born, we use the information on the reference person in the household to aggregate at the household level.

Our measure of *social class* is rooted in the status and characteristics of (former) participation in the labour market as measured by the International Standard Classification of Occupation 1988 (ISCO-88). Because the dataset includes only 1-digit codes for all respondents, we adopt a simplified version of the EGP class scheme based on three classes: (1) ‘managers and professionals’, (2) ‘white collar workers’, and (3) ‘blue collar workers/elementary occupations’. Since our analytical focus is at the household level, we apply a dominance criterion and assign the highest class level of one of the parents to the household. In case parents are currently not active in the labour market, information about their previous labour market experience is used to assign the class. If there is no information on previous occupations or both parents have been unemployed for more than eight years, the household is assigned to the third category. A similar approach is adopted to measure the level of education. We assign the highest level of one of the parents to the household. Based on the ISCED 97 classification, we distinguish between three levels: (1) ‘low’ (below upper secondary level), (2) ‘medium’ (upper secondary level), and (3) ‘high’ (tertiary level). To take the role of *maternal employment* into account, we include a dummy variable measuring whether the mother in the household was in paid employment during the week of the interview.

In order to test the role of *structural constraints*, we draw on a set of questions included in the EU-LFS ad hoc module on the reasons why respondents with at least one child below 14 years old with young children don’t work, or work only part-time. Respondents that were not seeking a job or were only working part-time were asked to indicate whether this was due to structural reasons (‘suitable care services for children are not available or affordable’) or that the availability or affordability of care facilities did not influence their work arrangement (which suggests a matter of choice). We calculate a country-level variable ‘structural constraints’ measuring the weighted proportion of respondents referring to structural reasons no to work (more) in the year of the survey.¹ Figure 1 presents country means. Values range from about 3% in Denmark over about 20% in Belgium, Spain, Ireland, Latvia and the United Kingdom, to about 40% in Germany.

Finally, to measure the role of culture, we create a variable measuring ‘*traditional norms on motherhood*’ based on the question ‘A pre-school child is likely to suffer if his or her mother works’. The answer categories ‘strongly agree’ and ‘agree’ are collapsed, and the variable measures the weighted share of respondents who disapprove of a mother’s role in the labour market. We draw on the European Values Survey (EVS) wave 2008 to construct an aggregated measure of dominant norms on motherhood for all countries included in our sample, based on a subsample of respondents with children below 14 years old.

The advantage of using this question is that it is available for a broad set of countries across the globe. As such, for operationalizing dominant norms on motherhood in the region of origin, we draw on the same question and the same subsample based on the World Values Survey (WVS) 1999–2014 and the International Social Survey Program (ISSP) 2012. We use different data sources and years to be able to include as many countries as possible that belong to the seven regions of origin we analyze in this paper. The dominant norms in the region of origin are calculated as the unweighted aggregates of weighted country-means. Figure 2 shows country and region values. Values for the countries of residence range from 6% in Denmark over 50% in Germany, Hungary and Luxemburg, to 70% in Italy and Greece. For the regions of origin, values range from 36% in other developed economies and Central and Southern Africa, over 50% in India and East Asia, to 75% in the Middle East and North Africa (MENA). Supplemental Table A4 in annex presents details of the selection of countries.

All models are controlled for the following variables: household structure (age of the youngest child, number of children in the household), age of the reference person (measured in 5-year bands) and family type (1 = single parent household), and whether the family has used paid parental leave for the youngest child. Supplemental Table A2 in annex summarizes descriptive statistics of all variables.

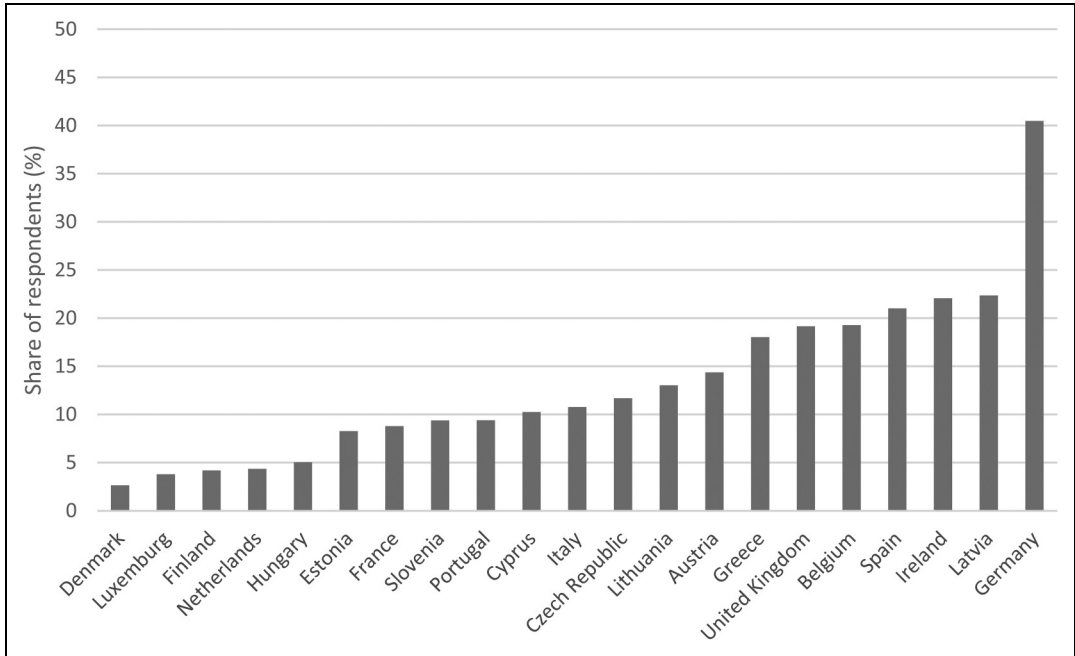


Figure 1. Share of respondents indicating structural constraints in the supply of formal childcare services in 21 European countries. *Source:* Own calculations on the basis of EU-LFS 2010, ad hoc module variable IMPFACIL ('Impact of availability and affordability of care facilities on not working or working part-time'). Weighted share of respondents indicating responses 1–3.

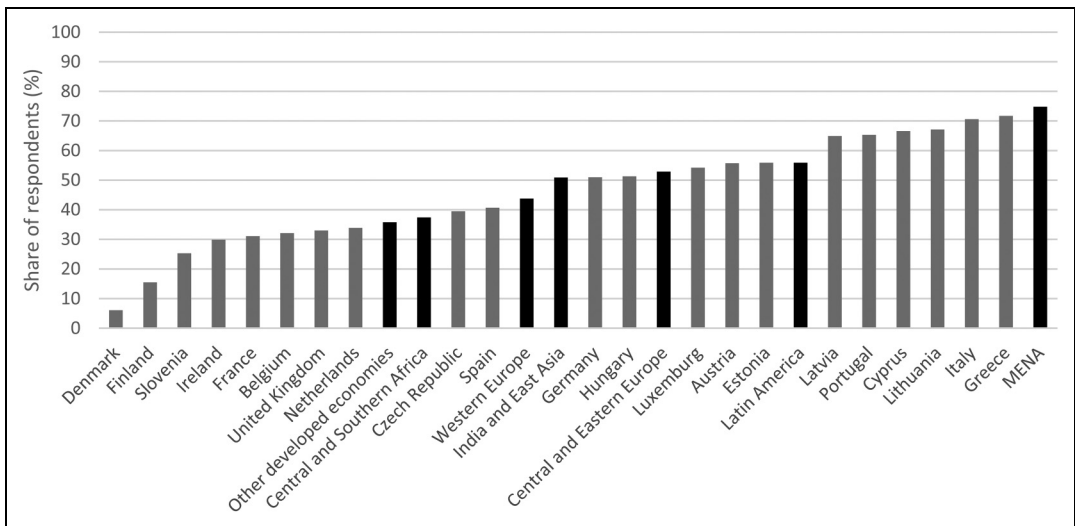


Figure 2. Share of respondents agreeing with traditional norms on motherhood in 21 European countries and in seven regions of origin. *Source:* Own calculations based on EVS, WVS and ISSP. The dark shaded bars refer to the regions of origin of immigrant families in the sample, the lighter shaded bars refer to the 21 European countries of residence. See Supplemental Table A2 in annex for more details.

Analytical strategy

Given the hierarchical nature of the data, with households clustered in countries, we run linear multilevel models to estimate the probability to use childcare for immigrant and native households with young children. A multilevel design takes the hierarchical structure of the data into account and yields less biased standard errors compared to a regression model with country dummies (e.g. Hox, 2010). Although our dependent variable is a binary variable, we follow recent guidelines to estimate linear probability models instead of logistic regression models, which in particular facilitates interpretation of the coefficients across different models (Breen et al., 2018). Sensitivity analyses using logistic regression models and country fixed-effects approaches were conducted and the interpretation of the results did not change. These analyses are included in the replication package. We focus on the relationship between immigrant households and childcare use, and we expand the models in a stepwise fashion to test our hypotheses. The intraclass correlation (ICC) of an empty model showed that 14% of the variance in childcare use is due to the country context.

For testing hypotheses 5 and 6, we ideally would like to estimate random slope models with cross-level interactions. Bryan and Jenkins (2016), amongst many others, warn against estimating cross-level interactions with a low number of level-2 observations. In doing so, we run the risk of committing type-1 errors in interpreting the contextual effects. For that reason, we avoid estimating cross-level interactions but rather estimate random intercept models with a limited number of country-level variables for native and immigrant households separately. To avoid bias in the standard errors and improve inferential accuracy, all models are estimated using the restricted maximum likelihood (REML) estimator. *P* values are computed from the *t*-distribution with approximately correct degrees of freedom using the Satterthwaite approximation (Elff et al., 2020). The models displayed only show the relevant coefficients. Supplemental Tables A5–A7 in annex report full models.

Empirical results

Descriptive results

Figure 3 shows that in the majority of countries, immigrant families with young children are less likely to use childcare compared to native families. The difference exceeds 10 percentage points (p.p.) in countries such as Greece (18 p.p. difference), Belgium (18 p.p.), Latvia (17 p.p.), Denmark (15 p.p.) and France (13 p.p.). In contrast, immigrant households are more likely to use childcare in Estonia (–12 p.p.), Lithuania (–7 p.p.), Portugal (–6 p.p.), Cyprus (–5 p.p.) and Slovenia (–3 p.p.). There is no correlation between the share of immigrant households in the country and the absolute ($r = 0.4$) or relative gap ($r = 0.00$) in childcare use between immigrant and native households. At the same time, the correlation between immigrant and native use of childcare is strong ($r = 0.88$), indicating that immigrant households adhere to the general pattern of access to childcare in the country of residence.

Multivariate results

Tables 2 and 3 report the estimates of interest derived from the multilevel linear models. The first model tests whether immigrant households are less likely to use childcare compared with natives, controlled for household structure (single parent, number of children, age of the youngest child, age of the reference person), highest educational level in the household and whether the household used paid parental leave for the youngest child. The subsequent models 2 and 3 add education and social class, while Model 4 adds both variables. Models 5 and 6 test the role of maternal employment in relation to the immigrant dummy, while Model 7 adds the immigrant dummy as a random slope. Model 8, then, tests the role of acquired citizenship.

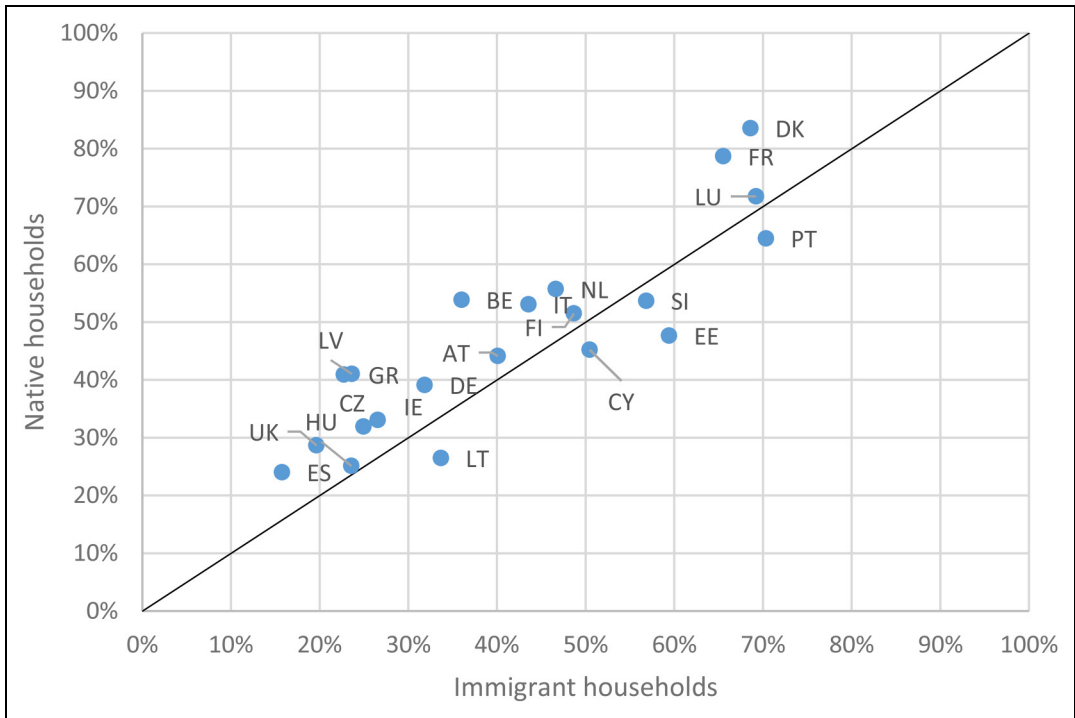


Figure 3. Formal childcare use amongst native and immigrant households. *Source:* Own calculations on EU-LFS 2010.

The multivariate results confirm the descriptive results that immigrant households are less likely to use childcare than native ones. Across European countries, the probability to use childcare for immigrants is 6 p.p. lower than for natives. Controlling for education in Model 2, the difference drops to 5.6 p.p. The level of education explains 13% of the gap between immigrant and native households in childcare use $((6.4-5.6)/6.4)$. High skilled households are 17 p.p. more likely to have enrolled their youngest child in childcare compared to a low-skilled household. Controlling for social class in Model 3, without adding education, the difference drops to 4.5 p.p. Social class explains 30% of the gap between immigrant and native households in childcare use $((6.4-4.5)/6.4)$. The social class variable shows that lower class levels are negatively associated with childcare use. A household with a blue collar/elementary occupations class position is 16 p.p. less likely to use childcare compared to a household from the managerial class. Model 4 adds both social class and education level as variables of stratification. The results show that both exert independent influence on the probability to use childcare: adjusted for education, a blue collar/elementary class position is 10 p.p. less likely to use childcare compared to a managerial class household. In turn, high-skilled households are 12 p.p. more likely to use childcare compared to a low-skilled household. The model however does not further reduce the immigrant-native gap in childcare use. In analyses not shown (but part of the replication package), we modelled interaction effects between the social class and education variables and immigrant households to test whether the immigrant-natives gap in childcare use is moderated by social class or education. The interaction effects were not significant. Therefore, the immigrant-native gap in formal childcare use is independent of the well-known social class and education gap in formal childcare use (confirming H1), suggesting that education, class *and* ethnicity are stratification categories in European societies, also when it comes to childcare use.

Model 5 adds maternal employment to the model. A working mother in the household strongly increases the probability to use childcare by 20 p.p. Adjusting for maternal employment further

Table 2. Multilevel linear models estimating the likelihood to use formal childcare.

	M1	M2	M3	M4	M5	M6	M7	M8
	Full sample	Full sample	Full sample	Full sample	Full sample	Full sample	Full sample	Immigrants only
Immigrant household (ref = native)	-0.064*** (-12.10)	-0.056*** (-10.50)	-0.045*** (-8.40)	-0.046*** (-8.56)	-0.031*** (-5.99)	-0.045*** (-6.24)	-0.023 (-1.79)	
Education level (ref. = low)								
Medium		0.071*** (11.37)		0.054*** (8.35)	0.032*** (5.10)	0.032*** (5.07)	0.031*** (4.91)	0.018 (1.46)
High		0.172*** (26.89)		0.120*** (16.63)	0.084*** (11.75)	0.084*** (11.76)	0.083*** (11.62)	0.052*** (3.60)
Social class (ref = managers and professionals)								
White-collar			-0.086*** (-18.19)	-0.053*** (-10.15)	-0.047*** (-9.09)	-0.047*** (-9.09)	-0.046*** (-9.04)	-0.066*** (-5.58)
Blue collar / elementary occupations			-0.164*** (-28.15)	-0.103*** (-15.26)	-0.046*** (-6.74)	-0.045*** (-6.68)	-0.045*** (-6.63)	-0.075*** (-5.35)
Maternal employment (ref = no)					0.201*** (44.75)	0.195*** (39.79)	0.201*** (44.77)	0.211*** (21.75)
Immigrant household * social class								
White-collar								
Blue collar / elementary occupations								
Immigrant household * maternal employment								
Citizenship (ref = no citizen)						0.028** (2.78)		0.028** (2.83)
Household controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
constant	0.342*** (9.05)	0.240*** (6.37)	0.421*** (11.26)	0.317*** (8.38)	0.202*** (5.29)	0.205*** (5.38)	0.199*** (5.20)	0.221*** (4.98)
RANDOM PART								
Country variance	0.028*** (-11.29)	0.027*** (-11.37)	0.027*** (-11.39)	0.027*** (-11.40)	0.027*** (-11.35)	0.027*** (-11.36)	0.002*** (-12.49)	0.024 *** (-11.29)

(continued)

Table 2. (continued)

	M1	M2	M3	M4	M5	M6	M7	M8
	Full sample	Full sample	Full sample	Full sample	Full sample	Full sample	Full sample	Immigrants only
Immigrant household variance							0.027* (-11.32)	
AIC	57360.67	56502.66	56572.39	56289.15	54228.7	54223.0	54315.17	10128.1
BIC	57439.56	56599.08	56668.82	56403.1	54351.4	54354.5	54446.66	10228.0
Log likelihood	-28671.34	-28240.33	-28275.2	-28131.57	-27100.3	-27096.5	-27142.59	-5050.0
N households	47 366	47 366	47 366	47 366	47 366	47 366	47 366	9 288
N countries	21	21	21	21	21	21	21	21

Note: t-statistics in parentheses. Significance levels: $\wedge p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. Household controls include parental leave use, single parent household, number of children, age of the youngest child and age of the reference person.

Table 3. Multilevel linear models estimating the likelihood to use formal childcare.

	M9 <i>Full sample</i>	M10 <i>Full sample</i>	M11 <i>Full sample</i>
Length of stay (ref. = native)			
<5 years	-0.079*** (-5.77)		
5–9 years	-0.048*** (-5.13)		
10–20 years	-0.024** (-2.99)		
20 + years	-0.008 (-0.96)		
Region of origin (ref. = native)			
Western-Europe		0.003 (0.34)	
Central and Eastern Europe		-0.051*** (-5.97)	
Other developed		-0.026 (-1.26)	
MENA		-0.053*** (-3.84)	
Central and South Africa		0.008 (0.54)	
Latin America		0.001 (0.05)	
India and East Asia		-0.102*** (-6.75)	
Region of origin * Length of stay (ref. = natives)			
Western Europe			
<10 years			0.002 (0.09)
10 + years			0.003 (0.27)
Central and Eastern Europe			
<10 years			-0.088*** (-7.16)
10 + years			-0.021 (-1.86)
Other developed economies			
<10 years			-0.050 (-1.42)
10 + years			-0.015 (-0.58)
MENA			
<10 years			-0.077** (-2.90)
+ 10 years			-0.044** (-2.78)
Central and Southern Africa			
<10 years			-0.026

(continued)

Table 3. (continued)

	M9 <i>Full sample</i>	M10 <i>Full sample</i>	M11 <i>Full sample</i>
+ 10 years			(-1.12) 0.026 (1.47)
Latin America <10 years			0.021 (0.94)
+ 10 years			-0.014 (-0.72)
India and East Asia <10 years			-0.145*** (-6.20)
+ 10 years			-0.074*** (-3.83)
Constant	0.207*** (5.42)	0.204*** (5.39)	0.208*** (5.47)
RANDOM PART			
Country variance	0.027*** (-11.35)	0.027*** (-11.39)	0.027*** (-11.40)
AIC	54342.06	54334.24	54356.59
BIC	54491.08	54509.55	54593.26
Log likelihood	-27154.03	-27147.12	-27151.3
<i>N</i> households	47 366	47 366	47 366
<i>N</i> countries	21	21	21

Note: t-statistics in parentheses. Significance levels: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. All models are controlled for the same covariates as in Model 7.

reduces the coefficient of the immigrant dummy to 3 p.p., but does not close the gap, confirming H2a. Yet, this means that education, social class and maternal employment explain half of the immigrant-native gap in childcare use. To test H2b, we add an interaction effect in Model 6. The significant interaction shows that even amongst families with a working mother, the probability for immigrant household to use childcare is still 2 p.p. lower than for natives, confirming H2b. This suggests that improving childcare use amongst immigrant households will also require to take into account the nature and type of employment of jobs available for immigrants in Europe's labour markets and/or how formal childcare services are adapted to this reality.

In Model 7, we add the immigrant dummy as a random slope allowing the effect of an immigrant household on childcare use to vary across countries. In other words, it tests whether the association between the use of childcare and being an immigrant household plays out differently in different countries adjusted for social class, education and maternal employment. The fixed effect coefficient of immigrant households loses significance while the random slope coefficient shows that the effect of immigrant households on childcare use varies significantly across countries. In short, this suggests that the immigration penalty does not hold for all countries equally. To gain more insight into this matter, in Figure 4, we plot the country variation in the coefficients obtained from Model 7.

While the gap in childcare use between immigrant and native households amounts to 9 p.p. in Belgium and France, 7 p.p. in Denmark, Greece and Latvia and 6 p.p. in the United Kingdom and Ireland, there is

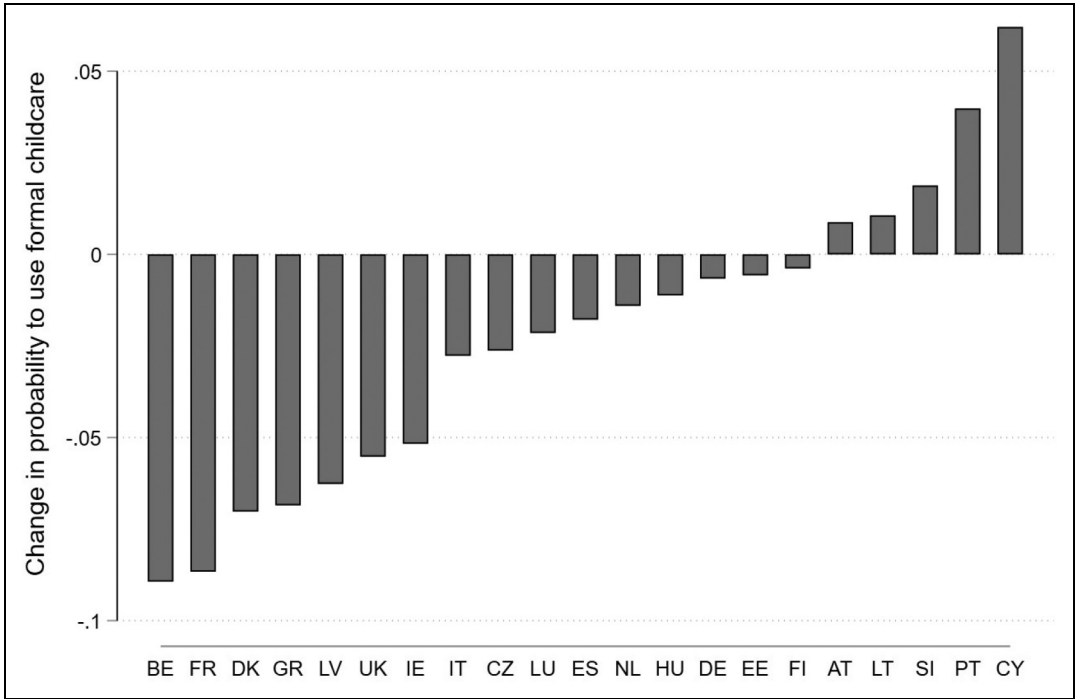


Figure 4. The effect of immigrant households on formal childcare use by country. *Note:* Empirical Bayes estimates derived from Model 7, Table 3. The coefficients shown are the total effect (fixed + random part) for each country of the immigrant household dummy on the probability to use formal childcare services.

no discernable gap in countries such as Germany, Finland, Estonia, Austria and Lithuania. In Slovenia (2 p.p.), Portugal (4 p.p.) and Cyprus (6 p.p.) immigrant households are more likely to use childcare than native households. This generally corroborates the descriptive findings in Figure 3 but also indicates that the immigrant-native gap in childcare use is not a universal phenomenon. In the next section, we discuss how these country differences can be understood in the future.

Finally, Model 8 adds a dummy depicting whether one of the foreign-born adults in the household has acquired citizenship. This model is limited to immigrant households only. The results confirm H3 that there is a citizenship premium in terms of childcare use. Acquiring citizenship in the country of residence is associated with a 3 p.p. higher probability to use childcare compared with immigrant families without citizenship. Given a native-immigrant gap of 6 p.p. across 21 European countries, that is a sizeable effect.

Let us now turn to theories of integration and divergence that may help explain the immigrant-native gap in childcare use. Table 3 reports random intercept models in which variables depicting the length of stay in the country of residence and the region of origin are tested, adjusted for maternal employment, social class, education and all household controls.

Model 9 shows that the length of stay is significantly related to childcare. The gap in childcare use by immigrant and native households disappears the longer immigrants have been living in the country of residence. The gap amounts to 8 p.p. for households in which the foreign-born reference person is living less than five years in the country, reduces to 5 p.p. for those who arrived between five and ten years ago, and further attenuates to 2 p.p. for those living between 10 and 20 years in the country of residence, and disappears entirely for those residing in the country longer. This is in line with theories of sociocultural integration and confirms H4. Model 10 shows differences in the probability to use childcare

by region of origin. Immigrant households with an origin from Central and Eastern Europe (−5 p.p.), Middle East and Northern Africa (MENA) (−5 p.p.) and India and East Asia (−10 p.p.) are significantly less likely to use childcare for their youngest child compared to natives. Meanwhile, there is no discernible difference in childcare use for immigrants from Western European and OECD countries, as well as from Latin America and Central and South Africa compared to natives.

Finally, to assess whether sociocultural integration occurs at varying rates for immigrant households with different regions of origin, in Model 10, we add a variable combining the length of stay and the region of origin to the model. For each region of origin, we make a distinction between immigrant households being less than ten years and those being more than ten years in the country of residence. We do this to preserve a sufficient number of observations in each category.

The results show that the differences in the probability to use childcare are most marked for MENA, and India and East Asia. For these regions, the probability to use childcare remains subpar even if immigrants have been living in the country for more than ten years, controlled for relevant covariates such as maternal employment, education and social class. After ten years, the gap still amounts to 4 p.p. for MENA countries and 7 p.p. for India and East Asia. For the other immigrant groups, there is no discernible difference in the probability to use childcare compared to natives.

The question now remains whether these differences by region of origin can be explained by traditional norms in the region of origin, whether they reflect structural barriers in the countries in which immigrant households from these regions mainly live or both. For instance, the highest shares of immigrant households coming from MENA countries are found in Belgium, France and Denmark, while the highest share of immigrant households from India and East Asia is found in the United Kingdom and Denmark (see Supplemental Table A3 in annex), countries reporting high immigrant-native gaps in childcare use. These are all countries with progressive dominant norms on motherhood (cf. Figure 2) but with varying scores of structural problems in childcare supply (cf. Figure 1).

To shed empirical light on this issue, Table 4 shows separate random intercept models for native (Model 12) and immigrant (Model 13) households in which we include country-level variables measuring structural constraints and norms on motherhood. The results show that structural constraints in childcare affect native as well as immigrant households to the same extent. For each additional percentage point increase in the share of respondents indicating structural constraints in securing a place childcare, the probability to use childcare decreases correspondingly with about 1 percentage point. Structural problems in the availability or affordability of childcare hurt all families irrespective of ethnic background; we cannot confirm H6 that immigrant households are affected *more* than native households by structural constraints. The results also suggest that traditional norms in their country of residence do not affect childcare use amongst both native and immigrant households.

Finally, in Model 14, we add a variable measuring the share of respondents adhering to traditional norms in the region of origin of immigrant households. The association is negative and significant, which suggests that norms in the region of origin do play a role in explaining childcare use in the country of residence. Although the effect is small (for each additional p.p. increase in the share of respondents in the region of origin adhering to traditional norms, the use of childcare decreases with 0.1 p.p.) this suggest that immigrant households born in regions with more traditional norms on motherhood are indeed less likely to use childcare (confirming H5). In sum, the deviation of the care culture in the region of origin from the care culture in the country of residence might be a relevant factor in understanding the immigrant-native gap in childcare use as well.

Discussion and limitations

In this article, we focused on the mechanisms that are related to an immigrant-native gap in formal childcare use. Although our data and empirical approach did allow for a glance into substantial cross-country differences, it was not possible to tease out the exact role of childcare and other policies. This was related to the nature of our data (with too few country observations to properly model cross-level interactions)

Table 4. Multilevel linear models estimating the likelihood to use formal childcare.

	M12 <i>Natives only</i>	M13 <i>Immigrants only</i>	M14 <i>Immigrants only</i>
Traditional norms on motherhood in country of residence	-0.003 (-1.70)	-0.001 (-0.95)	-0.002 (-0.96)
Structural constraints in country of residence	-0.008* (-2.25)	-0.010** (-3.10)	-0.010** (-3.10)
Traditional norms on motherhood in the region of origin			-0.001** (-3.13)
Constant	0.426*** (4.78)	0.436*** (5.11)	0.509*** (5.76)
RANDOM PART			
Country variance	0.020*** (-11.69)	0.016*** (-11.80)	0.016*** (-11.80)
AIC	44204.37	10234.72	10240.49
BIC	44332.58	10341.77	10354.68
Log likelihood	-22087.18	-5102.36	-5104.246
<i>N</i> households	38 078	9 288	9 288
<i>N</i> countries	21	21	21

Note: t-statistics in parentheses. Significance levels: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. All models are controlled for the same covariates as in Model 7.

but also to the lack of proper policy indicators measuring relevant aspects of childcare policies such as the way governments subsidize formal childcare services, government intervention in the availability of childcare facilities in poor neighbourhoods, quality standards, the distinction between publicly and privately provided services, fee structures as well as regional and local differences (see Sirén et al. 2020, for a discussion on measuring childcare policies). More in-depth country studies will be needed for teasing out the exact role of policy provision. But explanations will need to extend beyond childcare policies to labour market and integration policies. Figure 5 shows the relationship between the immigrant-native employment gap to the total predicted gap in childcare use between immigrant and native households (empirical Bayes estimates derived from Model 7). The relationship is negative and of medium strength ($r = -0.42$), indicating that predicted immigrant-native gaps in childcare use are larger in countries with larger immigrant-native employment gaps. This is particularly salient in countries such as the United Kingdom, Belgium, France and Denmark, countries with progressive norms but also with a substantial share of foreigners from regions with more traditional norms (cf. Supplemental Table A3). Not only childcare policies but also care culture and labour market opportunities are probably relevant factors to understand the immigrant-native gap in childcare use. This we leave for future work, since our dataset does not include individual measures of attitudes towards motherhood or childcare. Such measures would help test sociocultural integration or divergence theories in a more precise manner.

We note two other limitations of our study. First, our data do not include questions on the use of informal care. It is a different matter entirely whether parents rely on informal care channels to meet their care demands, or they provide home care themselves. Since we control for maternal employment, it might be the case that immigrant families with a working mother rely on informal care channels such as care by grandparents or relatives. At first sight, such alternative care strategy would mean that an immigrant gap in formal childcare use is less problematic. However, there is some evidence for European countries that first-generation immigrants suffer from the *absence* of close kin and informal networks for balancing work and care (Wall and José 2004). Moreover, informal care by grandparents is less reliable in terms of sustaining formal ties with the labour market, and the quality of the care provided can be variable (Blossfeld et al. 2017). Second, we cannot include second-generation immigrant families since the data do not include information on parental ancestry. It might be the case that, also in terms of childcare

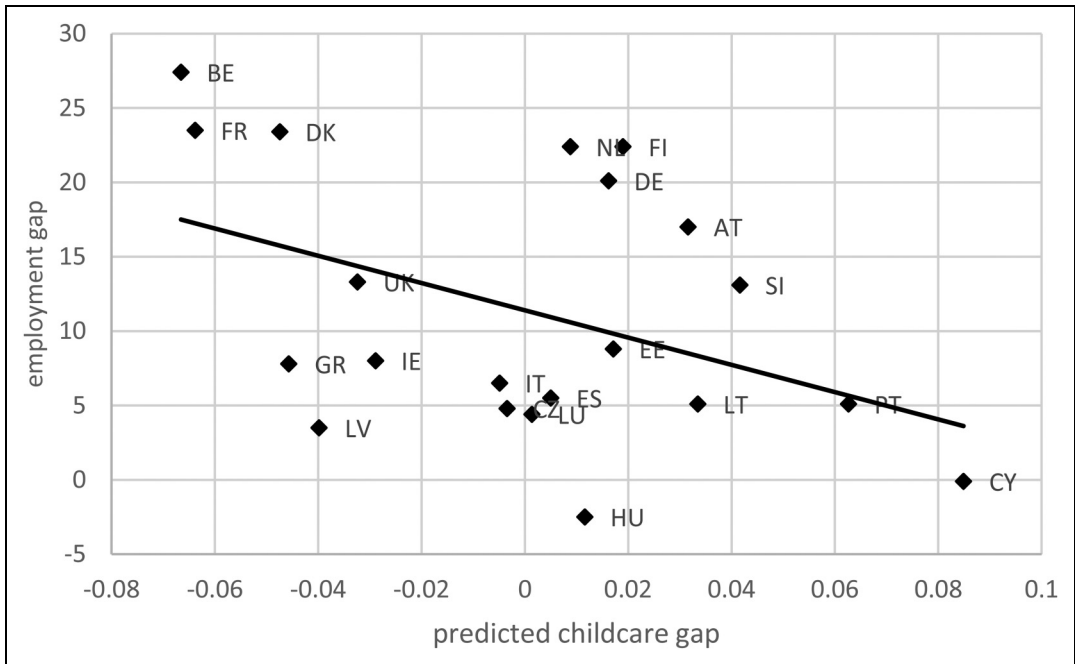


Figure 5. Predicted immigrant-native childcare gaps and the employment gap between foreigners and natives (women, 20–49, in pp). *Source:* Vertical axis: Eurostat. Employment rates by sex, age and country of birth (%) [lfsa_ergacob]. Horizontal axis: Empirical Bayes estimates derived from Model 7, Table 3.

use, second generation immigrants tend to pull away from the norms in their country of origin (Melzer et al. 2018).

Conclusion

In this article, we assume that access to childcare for immigrant children should be considered as the initial step to foster better social and economic integration throughout the educational system and in the labour market. A precondition for these expectations to be fulfilled is that immigrant households actually make use of childcare. We empirically examine this issue across 21 European countries. Although our data refer to the end of the 2000s, we focus on highlighting mechanisms at the individual, household and contextual levels that further our understanding of an immigrant-native gap in formal childcare use.

First, we find evidence of an immigrant-native gap. Beyond social class position and educational level, immigrant households are less likely to use childcare for their youngest children compared to native households. This gap cannot be explained in full by maternal employment either, although the natives-immigrants gap in childcare is halved once maternal employment, education and social class are accounted for. We also find that becoming a citizen in one's country of residence is associated with a higher probability to use childcare compared to non-citizens.

Second, there are important cross-country differences in the immigrant gap in formal childcare use, with Denmark, Belgium, France, Greece, Latvia and the United Kingdom reporting large gaps.

Third, we find no evidence for the hypothesis that structural constraints in the childcare supply affect immigrant households more than native ones. However, we do find an important relationship between structural constraints and childcare use in general. Removing barriers to childcare use in terms of availability and affordability benefits everyone.


Fourth, we provide evidence that both processes of sociocultural integration and divergence influence childcare use. Staying longer in the country of residence is associated with closing of the childcare gap, except for immigrant households coming from Middle Eastern and Northern African countries, India and East Asia. At the same time, we also find a small but significant effect of traditional norms in the region of origin.

This study furthers understanding of the immigrant-native gap in childcare use and suggests several fruitful routes for further investigation, in particular with respect to childcare and labour market policies and their effects on closing the gap, and on teasing out more precisely how integration, attitudes and policies interact. These are important avenues for future research, since the immigrant-native gap in the use of childcare creates a social and ethnic divide from the cradle. Such situation risks setting in motion a cycle of disadvantage over the life course of immigrant children.

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Supplemental material

Supplemental material for this article is available online.

Note

1. For this indicator, it is assumed that people working fulltime are not experiencing any structural constraints. This is of course a strong assumption, and the indicator should be regarded a lower bound estimate of structural constraints.

References

- Abressart A and Bonoli G (2015) Availability cost or culture? Obstacles to childcare services for low-income families. *Journal of Social Policy* 44(4): 787–806.
- Allen SF (2003) Working parents with young children: cross-national comparisons of policies and programmes in three countries. *International Journal of Social Welfare* 12(4): 261–273.
- Arlotti M, Gambardella D and Pavolini E (2015) L'investimento sociale alle prese con diseguglianze sociali e territoriali. In Ascoli U, Ranci C and Sgritta G (eds) *Investire nel sociale. La difficile Innovazione del Welfare Italiano*. Bologna: Il Mulino, 45–73.
- Bergh A (2017) Explaining the labor market gaps between immigrants and natives in the OECD. *Migration Letters* 14(2): 251–262.
- Biedinger N, Becker B and Rohling I (2008) Early ethnic educational inequality: The influence of duration of preschool attendance and social composition. *European Sociological Review* 24(2): 243–256.
- Blossfeld HP, Kulic N, Skopek J, et al. (2017) *Childcare Early Education and Social Inequality – An International Perspective*. Cheltenham UK: Edward Elgar.
- Borgna C and Contini D (2014) Migrant achievement penalties in Western Europe: Do educational systems matter? *European Sociological Review* 30(5): 670–683.
- Breen R, Bernt KK and Holm A (2018) Interpreting and understanding logits probits and other nonlinear probability models. *Annual Review of Sociology* 44: 39–54.
- Breidahl KN and Larsen CA (2016) The myth of unadaptable gender roles: attitudes towards women's paid work among immigrants across 30 European countries. *Journal of European Social Policy* 26(5): 387–401.

- Brilli Y, Kulic N and Triventi M (2017) Who cares for the children? Family social position and childcare arrangements in Italy, 2002–12. In: Blossfeld P, Kulic N, Skopek J. and Triventi M (eds) *Childcare, Early Education and Social Inequality*. Cheltenham, UK: Edward Elgar Publishing, 31–48.
- Bryan ML and Jenkins SP (2016) Multilevel modelling of country effects: A cautionary tale. *European Sociological Review* 32(1): 3–22.
- Burger K (2010) How does early childhood care and education affect cognitive development? *Early Childhood Research Quarterly* 25(2): 140–165.
- Cebolla-Boado H and Finotelli C (2015) Is there a north–south divide in integration outcomes? A comparison of the integration outcomes of immigrants in southern and Northern Europe. *European Journal of Population* 31(1): 77–102.
- Driessen GW (2004) A large-scale longitudinal study of the utilization and effects of early childhood education and care in the Netherlands. *Early Child Development and Care* 174(7–8): 667–689.
- Leseman P (2009) The impact of high quality education and care on the development of young children: A review of the literature. In: EACEA (Ed.) *Early Childhood Education and Care: Tackling Social and Cultural Inequalities*. Brussels: EACEA, 17–50.
- Elff M, Heisig JP, Schaeffer M, et al. (2021) Multilevel analysis with few clusters: Improving likelihood-based methods to provide unbiased estimates and accurate inference. *British Journal of Political Science* 51(1): 412–426.
- Eurostat (2020) Migrant integration statistics. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Migrant_integration_statistics (accessed 30 October 2021).
- Fram MS and Kim J (2008) Race/ethnicity and the start of childcare: A multi-level analysis of factors influencing first childcare experiences. *Early Childhood Research Quarterly* 23(4): 575–590.
- Garrizmann JL, Busemeyer MR and Neimanns E (2018) Public demand for social investment: New supporting coalitions for welfare state reform in Western Europe? *Journal of European Public Policy* 25(6): 844–861.
- Gottfried MA and Kim HY (2015) Formal versus informal prekindergarten care and school readiness for children in immigrant families: A synthesis review. *Educational Research Review* 16: 85–101.
- Greenberg JP (2011) The impact of maternal education on children’s enrollment in early childhood education and care. *Children and Youth Services Review* 33(7):1049–1057.
- Hainmueller J, Hangartner D and Pietrantuono G (2015) Naturalization fosters the long-term political integration of immigrants. *Proceedings of the National Academy of Sciences* 112(41): 12651–12656.
- Heath AF, Rothon C and Kilpi E (2008) The second generation in Western Europe: education unemployment and occupational attainment. *Annual Review of Sociology* 34: 211–235.
- Hox JJ (2010) *Multilevel Analysis: Techniques and Applications*. 2nd ed. New York: Routledge.
- Jehles N (2017) Development of participation in early childhood education and care in Europe in relation to social inequality and migration. In Banu Ç, et al. *The New Diversity of Family Life in Europe*. Wiesbaden: Springer VS Wiesbaden, 61–80.
- Johnson AD, Padilla CM and Votruba-Drzal E (2017) Predictors of public early care and education use among children of low-income immigrants. *Children and Youth Services Review* 73: 24–36.
- Kahn JM and Greenberg JP (2010) Factors predicting early childhood education and care use by immigrant families. *Social Science Research* 39(4): 642–651.
- Kao G and Thompson JS (2003) Racial and ethnic stratification in educational achievement and attainment. *Annual Review of Sociology* 29(1): 417–442.
- Klein O and Becker B (2017) Preschools as language learning environments for children of immigrants. Differential effects by familial language use across different preschool contexts. *Research in Social Stratification and Mobility* 48: 20–31.

- Kogan I (2006) Labor markets and economic incorporation among recent immigrants in Europe. *Social Forces* 85(2): 697–721.
- Krapf S (2014) Who uses public childcare for 2-year-old children? Coherent family policies and usage patterns in Sweden Finland and western Germany. *International Journal of Social Welfare* 23(1): 25–40.
- Kulic N, Skopek J, Triventi M, et al. (2019) Social background and children’s cognitive skills: The role of early childhood education and care in a cross-national perspective. *Annual Review of Sociology* 45: 557–579.
- Levels M, Dronkers J and Kraaykamp G (2008) Immigrant children’s educational achievement in western countries: Origin destination and community effects on mathematical performance. *American Sociological Review* 73(5): 835–853.
- Lokhande M (2013) *Hürdenlauf zur Kita: Warum Eltern mit Migrationshintergrund ihr Kind Seltener in die Frühkindliche Tagesbetreuung Schicken*. Berlin: Sachverständigenrat deutscher Stiftungen für Integration und Migration GmbH (SVR).
- Magnuson K, Lahaie C and Waldfogel J (2006) Preschool and school readiness of children of immigrants. *Social Science Quarterly* 87(5): 1241–1262.
- Melzer SM, Tomaskovic-Devey D and Schunck R (2018) A relational inequality approach to first-and second-generation immigrant earnings in German workplaces. *Social Forces* 97(1): 91–128.
- Miller P, Votruba-Drzal E and Levine Coley R (2015) Predictors of early care and education type among preschool-aged children in immigrant families: The role of region of origin and characteristics of the immigrant experience. *Children and Youth Services Review* 35: 1342–1355.
- Moll De T and Betz F (2014) Inequality in pre-school education and care in Germany: An analysis by social class and immigrant status. *International Studies in Sociology of Education* 24: 237–271.
- Norris P and Inglehart RF (2012) Muslim integration into western cultures: Between origins and destinations. *Political Studies* 60(2): 228–251.
- OECD (2006) *Starting Strong II. Early Childhood Education and Care*. Paris: OECD Publishing.
- OECD (2011) *Naturalisation: A Passport for the Better Integration of Immigrants?* Paris: OECD Publishing.
- Pavolini E and Van Lancker W (2018) The Matthew effect in childcare use: A matter of policies or preferences? *Journal of European Public Policy* 25(6): 878–893.
- Portes A and Zhou M (1993) The new second generation: Segmented assimilation and its variants. *The Annals of the American Academy of Political and Social Science* 530: 74–96.
- Prosser T (2016) Dualization or liberalization? Investigating precarious work in eight European countries. *Work Employment And Society* 30(6): 949–965.
- Reeskens T and van Oorschoot W (2015) Immigrants’ attitudes towards welfare redistribution. An exploration of role of government preferences among immigrants and natives across 18 European welfare states. *European Sociological Review* 31(4): 433–445.
- Sainsbury D (2019) Policy constructions immigrants’ social rights and gender: The case of Swedish childcare policies. *Journal of European Social Policy* 29(2): 213–227.
- Schober PS and Spiess CK (2013) Early childhood education activities and care arrangements of disadvantaged children in Germany. *Child Indicators Research* 6(4): 709–735.
- Seibel V and Hedegaard TF (2017) Migrants’ and natives’ attitudes to formal childcare in the Netherlands Denmark and Germany. *Children and Youth Services Review* 78: 112–121.
- Sirén S, Doctrinal L, Van Lancker W, et al. (2020) Childcare indicators for the Next Generation of Research. In: Nieuwenhuis, Rense, Van Lancker, Wim, (eds.), *The Palgrave Handbook of Family Policy*. Palgrave Macmillan, 627–655

- Stahl JF, Schober PS and Spiess CK (2018) Parental socio-economic status and childcare quality: Early inequalities in educational opportunity? *Early Childhood Research Quarterly* 44(3): 304–317.
- Uunk W, Kalmijn M and Muffels R (2005) The impact of young children on women's labour supply: A reassessment of institutional effects in Europe. *Acta Sociologica* 48(1): 41–62.
- Vandenbroeck M, De Visscher S, Van Nuffel K, et al. (2008) Mothers' search for infant childcare: The dynamic relationship between availability and desirability in a continental European welfare state. *Early Childhood Research Quarterly* 23(2): 245–258.
- van Kersbergen K and Kraft J (2017) De-universalization and selective social investment in Scandinavia? In Hemerijck A (ed) *The Uses of Social Investment*. Oxford: Oxford University Press, 216–226.
- Van Lancker W (2013) Putting the child-centred investment strategy to the test: Evidence for EU27. *European Journal of Social Security* 15(1): 4–27.
- Van Lancker W (2018) Reducing inequality in childcare service use across European countries: What (if any) is the role of social spending. *Social Policy & Administration* 52(1): 271–292.
- Van Lancker W and Ghysels J (2016) Explaining patterns of inequality in childcare service use across 31 developed economies: A welfare state perspective. *International Journal of Comparative Sociology* 57(5): 310–337.
- Van Tubergen F (2007) Religious affiliation and participation among immigrants in a secular society: A study of immigrants in the Netherlands. *Journal of Ethnic and Migration Studies* 33(5): 747–765.
- Vesely CK (2013) Low-income African and Latina immigrant mothers' selection of early childhood care and education (ECCE): Considering the complexity of cultural and structural influences. *Early Childhood Research Quarterly* 28(3): 470–486.
- Wall K and Jose JS (2004) Managing work and care: A difficult challenge for immigrant families. *Social Policy and Administration* 38: 591–621.
- Wimmer A and Thomas Soehl T (2014) Blocked acculturation: Cultural heterodoxy among Europe's immigrants. *American Journal of Sociology* 120(1): 146–186.

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