

### Migration and intergenerational stability in female employment: The impact of differences between sending and receiving countries

Tsolak, Dorian; Bürmann, Marvin; Kroh, Martin

Veröffentlichungsversion / Published Version

Zeitschriftenartikel / journal article

#### Empfohlene Zitierung / Suggested Citation:

Tsolak, D., Bürmann, M., & Kroh, M. (2021). Migration and intergenerational stability in female employment: The impact of differences between sending and receiving countries. *JFR - Journal of Family Research*, 33(2), 351-404. <https://doi.org/10.20377/jfr-490>

#### Nutzungsbedingungen:

Dieser Text wird unter einer CC BY Lizenz (Namensnennung) zur Verfügung gestellt. Nähere Auskünfte zu den CC-Lizenzen finden Sie hier: <https://creativecommons.org/licenses/by/4.0/deed.de>

#### Terms of use:

This document is made available under a CC BY Licence (Attribution). For more information see: <https://creativecommons.org/licenses/by/4.0>

## Migration and intergenerational stability in female employment: The impact of differences between sending and receiving countries

Dorian Tsolak<sup>1,2</sup>, Marvin Bürmann<sup>1,2</sup> and Martin Kroh<sup>1,3</sup>

<sup>1</sup> Bielefeld University. <sup>2</sup> Bielefeld Graduate School in History and Sociology.

<sup>3</sup> German Institute for Economic Research

Address correspondence to: Dorian Tsolak, Bielefeld University, Faculty of Sociology, Methods of Empirical Social Research, Universitätsstraße 25, 33615 Bielefeld (Germany). Email: dorian.tsolak@uni-bielefeld.de

### Abstract

**Objective:** This article studies the intergenerational stability of employment in families of immigrants cross-nationally by investigating to what extent contextual differences between sending and receiving countries affect the transmission of labour force participation from mothers to daughters.

**Background:** It is often argued that a low level of labour force participation among female immigrants reflects gender norms inherited from the sending country, or, alternatively, that it is indicative of obstacles to social mobility in the receiving country. We seek to add to the existing research on this topic by providing evidence of differences between sending and receiving countries that systematically affect the labour market behaviour of female immigrants.

**Method:** We use individual-level data from the European Social Survey (ESS) for 35 receiving countries for a 14-year period (2004-2018) in combination with contextual data for 172 sending countries from 1960 to 2018. First, we provide an overview of employment rates and intergenerational employment stability for different combinations of sending and receiving contexts with respect to the labour force participation rates of female immigrants. Second, we corroborate our descriptive findings with multilevel models.

**Results:** Our paper shows that there are changes in the levels of intergenerational employment stability among immigrants depending on the differences in the female labour force participation rates between the sending and the receiving countries. We find that when women migrate from countries with low female labour force participation rates to countries with high female labour force participation rates, their probability of participating in the labour force increases. However, we also find that the levels of intergenerational employment stability in this group are high.

**Conclusion:** Intergenerational employment stability seems to be responsive to contextual differences between sending and receiving countries. We observe the highest levels of intergenerational stability in employment between mothers and daughters in families who migrated from countries with low female labour force participation rates to countries with high female labour force participation rates.

**Key words:** labour market, integration, assimilation, gender, multilevel models



## 1. Introduction

Over the past century, female labour force participation<sup>1</sup> (in the following: LFP) has risen in many societies, most notably in the United States (Fernández 2013) and western Europe (Breen 2004; Breen & Luijkx 2004; Rubery et al. 1999; Vlasblom & Schippers 2004). Researchers who have studied this trend have usually focused on the effects of common social-economic factors, such as women's education, fertility, or marriage patterns (Fernández 2013). Other potential causes of the increase in female LFP that have been discussed are technological change, exogenous shocks, increased availability of part-time work, the expansion of the service sector, policy changes, and culture, such as gender norms that promote female LFP (Fernández 2011; Fernández & Fogli 2009; OECD 2013).

However, a large body of literature of sociology and economics has shown that female immigrants in particular face persistent labour market disadvantages, not just in terms of their participation levels, but also in terms of their working hours, occupational status, and labour income (see Heath et al. 2007 for cross-national evidence). It has, for example, been shown that female immigrants' labour force participation rates are considerably lower than those of both female natives and male immigrants (see Antecol 2000 for cross-national data). Because the female LFP rates in western societies have been increasing, while female immigrants in western labour markets have had consistent disadvantages, the employment gap between native and immigrant females has been gradually increasing over time (for empirical evidence on Germany, one context under investigation in this article, see Sprengholz et al. in this Special Issue).

Previous studies have offered various explanations for the labour market disadvantages of immigrants, ranging from differences in human capital, to labour market segmentation, to the effects of social networks, to the effects of institutional hurdles and discrimination (Alaverdyan & Zaharieva 2019; Chort 2017; Salikutluk et al. 2020). In the migration literature, there are at least three perspectives on the double disadvantage female immigrants face on the labour market. These perspectives have focused on the migration experience, the context of the receiving country, and the context of the sending country (Blau & Kahn 2015; van Tubergen et al. 2004). An initial explanation for the importance of the migration experience stressed the negative effects of tied moving and institutional thresholds for family immigrants, both of which disproportionately affect females (e.g., Krieger 2020). Second, intersectionality approaches have underscored the effects of the accumulated disadvantages female immigrants may experience in the labour market of the receiving country (e.g., Raijman & Semyonov 1997). Finally, approaches that deal with the sending context have argued that the disadvantages of female immigrants often reflect the traditional gender norms of the sending country that are transmitted intergenerationally at the family level, and that are still prevalent in the receiving country (e.g., Fernández & Fogli 2009). The sending context

---

1 We use the labour force participation definition of the International Labour Organization (ILO). That is, the labour force participation rate is the share of persons who are active in the workforce out of all persons who are of working age (15 years to 64 years). More information can be found in: [https://www.ilo.org/ilostat-files/Documents/description\\_LFPR\\_EN.pdf](https://www.ilo.org/ilostat-files/Documents/description_LFPR_EN.pdf) (Last retrieved: 14 October at 00:06 CEST).

approach is typically formulated for female immigrants who move from a country that is perceived as traditional and patriarchal to a country with a high level of gender equality.

Our paper contributes to the literature by studying the intergenerational stability of female employment in immigrant families cross-nationally, while simultaneously taking the sending and the receiving contexts into account. To conduct our analysis, we introduce a measure of contextual variation that consists of time-sensitive female LFP rates in the sending and the receiving countries. Examining this contextual variation tells us under what conditions levels of intergenerational stability in employment between mothers and daughters in immigrant families are highest.

We draw on data from the European Social Survey (ESS) collected between 2004 and 2018, and augment the cross-national receiving country data from the ESS with yearly and country-specific data for the 1940-2000 birth cohorts on the female LFP rates of the sending as well as the receiving countries.

## 2. Determinants of female labour force participation

Across the world, female LFP rates have risen sharply since the beginning of the 20th century. For example, in the U.S., this rate has increased from less than 10 per cent to more than 70 per cent (e.g., Fernández 2013). Since the 1980s, the rising LFP rates of women have received increasing attention from empirical research (e.g., Semyonov 1980), and different explanations for this trend have been proposed. Human capital theory (e.g., Becker 1991) has been a focal point of the economic literature, and especially human capital in the form of educational or vocational qualifications, as it is one of the most important determinants of female LFP. Likewise, traditional fertility and marriage patterns have been discussed and shown to be negatively correlated with female employment in accordance with household specialisation theory (Becker 1991). However, more recent sociological research has discussed this focus on human capital in the context of welfare states and their support for combining work and family, which has led to more empirical studies that have specifically emphasised the welfare state context (Kreyenfeld 2010).

Among the reasons cited for the increase in female LFP are the ongoing progress towards equal rights for women; changing attitudes towards working women; occupational changes, such as the growth of the service sector with less physically intensive jobs; technological changes that reduced the amount of work required in the household; the increased availability of part-time work positions; the spread of birth control; and exogenous shocks, such as the Second World War (Fogli & Veldkamp 2009; Fogli & Veldkamp 2011). While some of these explanations have merit because they have played an important role from a historical perspective, they should also be assessed critically, since they still reflect the underlying idea that women are expected to take care of the household, and that female employment is secondary to male employment.

A third set of explanations for the increase in female LFP refer to the gender norms that are prevalent in different cultures (e.g., Fogli & Veldkamp 2009). Fernández's adaptation of cultural learning theory attributed the lower LFP levels of female

immigrants to the transmission of gender norms between the sending and receiving contexts. In this framework, cultural learning refers to culture as a “[...] systematic variation in beliefs and preferences”, while learning refers to the changes in these beliefs “[...] across time, space, or social groups” (Fernández 2011: 484). As more women in a given society enter the labour market, the culture shifts, which, in turn, has an amplifying effect on the next generation of women. Fogli and Veldkamp (2011), who investigated the spatial processes of rising female LFP rates, came to a very similar conclusion, but augmented the approach of Fernández (2011) by introducing spatial diffusion, which describes a locality-based adaptation to the environment of host societies. They argued that children’s attitudes towards working women are initially shaped by their own parents, but are then dynamically updated by observing (non-)working women around them. By assuming such a process of spatial diffusion, Fogli and Veldkamp (2011) were able to explain regional variation between counties in the U.S. census data for the 1940-2000 period, and to provide potential explanations for why the increase in the female labour market participation rate was higher for women with than without children.

Although conceptualisations and measurements of this very stylised notion of culture have differed across studies, empirical studies of these theories have nonetheless demonstrated that the beliefs, preferences, attitudes, norms, and values of social groups are robust predictors of the actual LFP of females. For instance, longitudinal studies have shown that changes in female employment rates have correlated strongly with indicators of value changes in societies (see Fernández 2011). Moreover, cross-national studies (e.g., Clark et al. 1991) have reported that culture, measured as a combination of religious and ideological orientations, and employment behaviour are correlated empirically. Similarly, other studies have found that gender role attitudes have effects at the country level, with more egalitarian attitudes correlating with higher female LFP rates (Fortin 2005).

A second group of studies have demonstrated the effects of cultural learning, and, more specifically, of parental socialisation on intergenerational correlations in attitudes and behaviours. A large number of studies have provided evidence that domestic female LFP is transmitted intergenerationally from mothers to daughters at the individual level, measured either directly or via gender role attitudes (Binder 2018; Farré & Vella 2013; Galassi et al. 2019; Kawaguchi & Miyazaki 2009). Olivetti et al. (2018) even found empirical evidence for high school females that the LFP of the mothers of their peers had an effect on their LFP that was almost as strong as that of their own mother, which is very much in line with the theory of spatial diffusion proposed by Fogli and Veldkamp (2011).

All of these studies suggest that, generally speaking, females who migrate from a society with low rates of female LFP to a society with high rates of female LFP tend to experience cross-pressures in their employment decisions, which lead them to follow the gender norms of their sending context (sometimes termed cultural inheritance, parental socialisation, sending country effects) or their receiving context (sometimes termed cultural assimilation, opportunity structures, receiving country effects). It appears likely that females migrating between contexts with very similar female LFP levels do not experience these cross-pressures to the same extent.

### 3. Migration specific mechanisms of female labour force participation

In the previous section, we elaborated on the domestic dynamics that shape female LFP in general, and that explain the increase in female LFP. In this section, we supplement our discussion of these dynamics by considering theoretical mechanisms specific to (female) immigrants that can explain their low levels of LFP, and that have to be controlled for in an empirical analysis.

Sending country effects, which imply that immigrants do not fully adapt their employment behaviour to the receiving labour market context, are well-documented across the empirical literature (e.g., Antecol 2000, Fernández & Fogli 2009; Reimers 1985). Reimers (1985) was among the first to cite sending context variation as a driver of female LFP. Antecol (2000) conducted another analysis for the United States using census data from 1990. She found that human capital factors could not fully explain the gender gap in the LFP rate, and was able to explain more than 50 per cent of the variation in the LFP gender gap by adding information on the female LFP in the sending country. The striking finding that the LFP rates in the sending country have a strong effect on the labour supply in the receiving country has since been replicated many times for different receiving countries, such as Canada (Frank et al. 2015), Germany (Milewski 2013), the Netherlands (Khoudja & Fleischmann 2015), the U.S. using more sophisticated methodology (Fernández & Fogli 2009), and even across Europe (OECD 2017).

The authors who have examined these sending country effects on the employment of immigrants have cited cultural inheritance as one of the main drivers. According to this view, culture is a bundle of portable norms and values that are formed early in life, predominantly through parental education, and that remain largely unchanged during adulthood (see already Mannheim 1928), even in cases of cross-cultural migration. It is, for example, often argued that when immigrants move from a traditional or patriarchal society in which women are expected to focus on domestic work to a society with a higher level of gender equality, both women and men still tend to rely on the norms and values of their home country. Thus, in this example, female immigrants may be expected to engage in domestic work instead of entering employment.

Human capital plays a vital role in the migration context. On the one hand, immigrants may experience a devaluation of their educational qualifications when entering the new institutional context of the receiving country (Friedberg 2000; Kreyenfeld & Konietzka 2002); while on the other hand, the self-selection of immigrants may lead to them having a different distribution of qualifications compared to that of natives, with immigrants' qualifications often being lower on average (Borjas 1994; Kalter 2002; Bürmann et al. 2018). Kalter and Granato (2007), for example, provided an in-depth analysis for Germany of the effects of immigrants' human capital on their LFP.<sup>2</sup> It has also been shown that having language skills – in particular, speaking the language of the receiving country – plays a large role in immigrants' labour market outcomes (Chiswick & Miller 1990; 2003).<sup>3</sup>

---

2 In our analyses, we use a simplified ES-ISCED scale to control for education.

3 We control for language skills with a dummy variable indicating whether only a foreign language is spoken in the household instead of a receiving country language.

Besides human capital theory, assimilation theory is one of the most important approaches for explaining the labour market success of immigrants. Immigrants learn over time about the cultural norms and the structural context of the receiving country, a process that has generally been described as cultural learning (Fernández 2013). It is thus assumed that in addition to the effects of improving their language skills or building network ties to natives, spending more time in a receiving country where working women are the norm should increase the likelihood of immigrant women entering the labour market. Empirically, there is evidence that the length of time immigrants have spent in the host country greatly affects their LFP in general (e.g., Chiswick & Miller 2011), and that of immigrant women in particular (Rubin et al. 2008).<sup>4</sup>

While the aforementioned factors may influence immigrants' LFP independent of gender, some may exert stronger or weaker effects for women (Salikutluk et al. 2020). Therefore, when studying the LFP of immigrants, the barriers that affect female immigrants in particular should be analysed separately. Previous research on migration has found that immigrant women face a disadvantage relative not just to native women, but also to immigrant men (Boyd 1984; Greenman & Xie 2008; Raijman & Semyonov 1997; Rubin et al. 2008). While there is an ongoing discussion about the reasons for this double disadvantage, discrimination is one of the factors that must be taken into account. Although discrimination can affect male as well as female immigrants, either through taste-based discrimination (Becker 1971) or statistical discrimination (Arrow 1971), females may be even more severely affected by this problem, because they are discriminated against based not only on their foreign descent, but also on their gender (Kofman 2009). This discrimination across multiple dimensions is often referred to under the umbrella of intersectionality theory (Crenshaw 1989).<sup>5</sup>

Religiosity has been previously found to have a strong link to traditional gender norms regarding female employment (Diehl et al. 2009). Some studies have found that Muslim women are especially disadvantaged in this regard, even though this effect may be mediated by education (e.g., Estrada 2018).<sup>6</sup>

In line with theories on gender role attitudes and household specialisation, the individual decision about whether to participate in the labour force is often tied to the family context. As might be expected, marital status has been found to be an important predictor for female LFP (Donato et al. 2014). Moreover, taking care of children is often regarded as the responsibility of the mother, especially in more traditional and patriarchal societies. Therefore, it is not surprising that the age of the youngest child has been empirically shown to be a strong predictor of the LFP of women (Rubin et al. 2008).<sup>7</sup>

---

4 Due to the structure of the ESS data, we can only apply years since migration categories as controls in our models.

5 Since our analysis omits the gender aspect by analysing only female immigrants, we only control for perceived discrimination.

6 Since religious affinity is not equally attributed across the sending countries, we include religiosity as a control variable in our analysis to prevent an artificial boosting of our sending country effects.

7 Our models control for the marital status of respondents, as well as for the number of children in the household and the age of the youngest child.

#### 4. Intergenerational stability of female immigrants' labour force participation

The following section integrates the mechanisms presented thus far with the *assimilation hypothesis* and the *diaspora hypothesis*, which will be outlined in the following paragraphs. Both will be examined in our empirical analyses.

Thus far, we have argued that the sending country effects are transmitted in the form of norms and values as well as corresponding behaviour; for example, based on the male breadwinner and female caretaker model, and on traditional marriage and fertility patterns. Research on sending country effects that draws on data from a single receiving country at a time has reported stronger effects for some sending countries than for others (Antecol 2000; Fernández & Fogli 2009; Frank et al. 2015; Khoudja & Fleischmann 2015; Milewski 2013; Reimers 1985). Implicitly, all of these studies have built on the notion that these effects can be attributed to contextual differences in the cultures of the sending country and the receiving country. This notion, in turn, implies that we would not find evidence of pronounced sending country effects if the sending and receiving cultures were similar. However, by studying only a single receiving country at a time, previous research designs were unable to examine sending and receiving country effects simultaneously. We use a more comprehensive measure of contextual variation in which we study differences in the LFP rates of multiple sending and multiple receiving countries. We consider the female employment rates of the sending and the receiving countries to be indicative of the countries' prevalent cultural and gender norms, at least with respect to the role modelling that young females experienced during their impressionable years. Thus, we make the previously implicit assumption of cultural differences explicit, and relate it more closely to employment behaviour.

Female immigrants experience cross-pressures through the sending country channel on the one hand and the receiving country channel on the other. When the cultural differences between the sending and the receiving country are large, immigrants have different cultural learning experiences in the two contexts. However, in the sending context, first-generation immigrants also form some of their norms and values by experiencing their parents' behaviour during childhood (Parsons et al. 1982), which amplifies these cross-pressures by contributing an additional influence at the familial level. This role modelling of the mother should create fewer cross-pressures if the sending and the receiving countries are culturally similar. Thus, in these situations, the levels of intergenerational stability between mothers and daughters should be higher.

When a woman is presented with a large contextual change in attitudes towards working women after migration, the tension between the sending and the receiving country cultures makes it difficult to discern whether the usual influence of the mother's employment behaviour on her daughter's employment behaviour (intergenerational stability) persists throughout her migration process. For this reason, we seek to study not only the effects on employment of contextual differences between the sending and the receiving country, but also how they moderate the effects mothers have on their daughters.

To explain this issue in more detail, we look at two rival theories that may explain how the contextual changes experienced by immigrants affect intergenerational stability at the



familial level: the assimilation hypothesis and the diaspora hypothesis. *The assimilation hypothesis* (e.g., Alba 1997) suggests that a large gap between the sending and the receiving country should erode intergenerational stability at a faster pace. This is based on the assumption that the transferability of experiences and orientations is limited if the mother and the daughter are raised in very different contextual settings. In contrast, in situations in which a woman migrates between very similar contexts, the level of intergenerational stability should be high. Cultural learning and spatial diffusion may also inhibit intergenerational stability in immigrant families if they are migrating between cultural contexts that are very different. Like in societies that are experiencing significant social changes, migration may lead to a generational divide between the mother, who represents the culture of the sending country; and the daughter, who is strongly influenced by the culture of the receiving country. Inglehart (1989) and Inglehart and Norris (2003) proposed a similar hypothesis regarding the value changes within societies. In their view, individual's values develop early in life based on contextual factors, and remain largely unchanged throughout their adulthood. If this is the case for immigrant families as well, the intergenerational stability between a mother and her daughter should decline if the cultural gap between the sending and the receiving country is large, since the daughter is expected to acquire her values from the society she was born and raised in.

The concept of acculturation from cross-cultural psychology (e.g., Berry 1992; Sam & Berry 1997), which is closely related to that of assimilation, has been critiqued by scholars who have questioned its central assumption that all immigrant groups undergo the same psychological acculturation process. This critique, which is based on postcolonial theory, has led to theoretical considerations regarding diaspora effects. Based on previous work on cultural identity and the diaspora (Hall 1994), Bhatia and Ram (2001, 2009) suggested that a diaspora – i.e., an ethnic community living abroad – might react differently than assimilation or acculturation theories would suggest. A family represents the smallest possible unit of such a diaspora. The potential existence of a diaspora effect has not previously received much attention in the quantitative social science literature. Evidence of a diaspora effect remains primarily qualitative (e.g., Bhatia & Ram 2009). While some quantitative studies have acknowledged the validity of the diaspora hypothesis (Phillimore 2011; Cheung & Phillimore 2014), they have not provided empirical analyses of a potential diaspora effect. For the research question of our study, the diaspora hypothesis is highly relevant, and predicts the following: *The diaspora hypothesis suggests that a large gap between the sending and the receiving country should strengthen familial-level intergenerational employment stability.* This hypothesis builds on the assumption that immigrant families experience a large cultural gap between the sending and the receiving context as stressful, and absorb this shock at least partly by maintaining certain levels of stability within families. Small or negligible cultural differences should not trigger this response, but the theory does not address the possibility that there is no significant gap between the sending and the receiving context.

Above all, we expect to observe a baseline level of intergenerational stability between mothers and daughters. In addition, we expect one of two scenarios to emerge from our data. If the assimilation hypothesis holds true, we would expect the level of intergenerational stability to be weaker if the contextual changes are large, because the daughters would be expected to assimilate to the receiving context, and to disregard their

cultural heritage in terms of female employment. If the diaspora hypothesis holds true, we would expect the level of intergenerational stability to be higher if the contextual changes are large, because the shock of migration should lead to a greater orientation towards traditional values.

## 5. Data

For our empirical analyses, we use individual-level data on female respondents as well as year-specific country-level data for the sending and the receiving countries. Here, the sending country refers to a female immigrant's country of birth, while the receiving country is the country where the respondent was interviewed. For the immigrants, this was the country they had (most recently) migrated to at the time of the interview. The combinations of countries and years are considered as "contexts" in the remainder of the article. Thus, a sending context consists of a combination of one sending country and one sending year, while a receiving context consists of a combination of one receiving country and one receiving year. This distinction is made to account for the fact that the characteristics of the sending countries may change over time, and may therefore reflect substantially different contexts at different points in time. A pair of contexts describing the space and the time of the migration process – that is, one sending and one receiving context – is considered as a "context combination".

### 5.1 *Individual-level data*

Our individual-level data draw on eight out of nine rounds<sup>8</sup> from the European Social Survey (ESS), which were conducted biannually from 2004 to 2018. Overall, the sample consists of more than 400,000 individuals surveyed in 37 European receiving countries. The working-age population (between 18 and 64 years of age) makes up around two-thirds of the total sample. Further restricting the sample to females with information about their own and their parents' country of birth as well as the year of migration for female immigrants leaves us with 169,025 women in our dataset. For immigrants – whom we define as individuals who migrated after the age of 14,<sup>9</sup> and who therefore most likely lived with their mother in their sending country during their impressionable years – one additional restriction was made to ensure a better fit between our theoretical arguments

---

8 We had to exclude the first round of the ESS (conducted 2002) because only the mothers' sending continent was surveyed. The mothers' sending country is only included from 2004 onwards.

9 Respondents who immigrated as children at or before the age of 14 are excluded from the analysis since we cannot identify with certainty in which context they spent their impressionable years of socialisation. Unfortunately, the ESS lacks continuous information for years since migration for three survey years (2004 to 2008). For these survey years, we picked a random integer for years since migration within the surveyed year brackets (within the last year; 1-5 years ago; 6-10 years ago; 11-20 years ago; more than 20 years ago) with a seed of 3,177 (Stata version 14.1) to construct a continuous variable for the years since migration. Based on the resulting variable for the age at migration, some female immigrants from these survey years may be randomly misclassified as being or as not being immigrants who migrated after the age of 14.

and our data: i.e., we only analyse immigrants if they were born in the same country as their mother, which was the case in 85 per cent of the observations. Thus, we exclude immigrants who have mothers who were themselves immigrants to ensure that both were raised in the same country. We are then left with 8,431 female immigrants from 172 sending countries who migrated to 35 receiving countries.<sup>10</sup> While the primary focus of our investigation is on female immigrants, we use estimates of the employment rates and the intergenerational stability of employment for the female descendants of immigrants and female natives for reference purposes. We define the descendants of immigrants as those individuals who were born in the respective ESS country and have a mother who was not born in the country (N=9,451). The natives are defined as those individuals who were born in the respective country with parents who were born in the same country (N=138,393). To compare the employment rates and the effects from our models for immigrants with those for the descendants of immigrants and natives, we weighted the two reference groups according to the distribution of immigrants across the receiving countries within the analysed receiving context groups (see below for an explanation of the context groups). Thus, we treat the descendants and the natives as if they were distributed over ESS receiving countries, just like immigrants.<sup>11</sup>

Our dependent variable on the individual level is a dichotomous measure of the respondent's employment, which is one if the respondent was in paid work (employee, self-employed, working for a family business) or in community or military service, and was zero if the respondent was unemployed (looking and not looking for a job)<sup>12</sup>, doing housework, or caring for children or elderly family members. Respondents who were in education, were permanently sick/disabled, or had retired are excluded from our analyses. In a similar fashion, we build our core independent variable on the individual level, which is the employment of the respondent's mother when the respondent was aged 14. This variable is also measured dichotomously as one if the mother has been employed or self-employed, and as zero if the mother was not working. Cases in which the respondent could not remember what her mother was doing at the time or refused to answer the question, or in which the mother was dead/absent, are omitted from our analyses. The effect of the mothers' employment on the daughters' employment represents our estimate of the level of intergenerational stability in female employment. The exclusion of those females who migrated at or before the age of 14 helps to ensure that we are measuring the

---

10 Albania (AL) is omitted in the models due to the small sample size, and is therefore only included in the descriptive statistics.

11 We refrain from using population weights provided by the ESS for two reasons. First, they introduce considerable variation into the analysis, since the country-wise sample sizes do not follow the population sizes of European countries. Second, the small population of migrants is most likely not perfectly covered by the ESS, since there are no boost samples for migrants in the ESS. Hence, we do not claim that our analyses are representative for the general population of migrants in Europe.

12 We are aware of the fact that this operationalisation deviates from common definitions of labour force participation (like the ILO-definition), which usually include unemployed persons as participating in the labour force if they are looking for a job. For the respondents' mothers, however, the ESS does not allow us to distinguish the type of unemployment. We therefore decided to operationalise employment identically for both the respondents and the respondents' mothers in order to have the same measurements on the individual-level.

employment behaviour of the mother that the female immigrant experienced in the sending country.

## 5.2 *Sending and receiving context data*

To study the effect of a gap (contextual change) between the sending and the receiving countries, we used the LFP rates<sup>13</sup> of the sending countries at the time of migration and of the receiving countries in the survey year. As we explained above, in this study, each combination of country and year represents a specific context. In our data, the receiving contexts are the years in which the female immigrants were surveyed in the countries participating in the ESS. The sending contexts are all combinations of the sending countries (i.e., the country of birth of immigrants within Europe or abroad) and the years of migration in our data. For both contexts, we use the female LFP rates to analyse the influence of the contextual changes between the sending and the receiving contexts that occurred through migration.

In practice, we integrate contextual data from the World Bank (WB) and the Organisation for Economic Co-operation and Development (OECD) in order to ensure a broad coverage of female LFP rates across time and space. While the WB data have broad country coverage, they only provide information since 1990. The OECD data provide information since 1960, but only for OECD countries. However, as the discrepancies between the two sources (OECD – WB when both years are available) only amount to -0.12 percentage points on average, we are able to build a LFP rate indicator on the context level that contains the value from the OECD data, and that uses the WB value if no OECD data are available for a specific context. This procedure alone allows us to cover 52.29 per cent of country-years from 1960 to 2018 for 217 different countries. Nevertheless, to avoid sample selection bias caused by the listwise deletion of these cases, and to maximise the efficiency of the estimation, we use multiple imputation to fill the gaps in the data (Honaker & King 2010). More specifically, we implement a multiple imputation procedure designed for time-series datasets like that of our female LFP rates data.<sup>14</sup>

13 Measured according to the ILO definition of labour force participation provided in footnote 1.

14 An implementation of this bootstrapping-based EM algorithm is available via the R-package *Amelia*, which we use for our analysis (Honaker et al. 2011). For our imputation procedure, we use a set of 12 variables; a list of these variables can be found in the supplementary material (Note of Figure A.1). We have also excluded countries with information for less than 10 years after combining WB and OECD data. The numbers presented in the text above are after the exclusion of these countries. The settings that worked best for us included using leads and lags of the LFP rates; using linear effects across time, which vary across countries; as well as using logistic transformation where appropriate. The supplementary material contains the results of a sanity check (Figure A.1) for which we ran the algorithm with the aforementioned settings on WB data only to predict the OECD LFP rates. Our chosen procedure reveals that overall, we have accurate imputations in areas where information on LFP rates are available in close temporal proximity for a given country, which, for the WB data, is only the case from 1990 onwards. For data prior to 1990, for which we had to rely on other indicators, we see conservative behaviour that mostly overestimates the LFP rates, if at all. We deem this behaviour acceptable because the potentially underestimated variance over time should lead to more conservative estimates in our models, and no bias towards large effect sizes.

For immigrants, we match the imputed dataset with the ESS data by adding the LFP rate of the sending country one year prior to the year of migration as the sending context information. Adding the receiving context information is straightforward, as we simply match the country the respondent currently lives in and the survey year with the corresponding LFP rate. The LFP rates for immigrants then vary between 7.0 and 89.7 per cent for the sending contexts and between 50.8 and 86.2 per cent for the receiving contexts (without Turkey; see below for the explanation).

Based on the LFP rates for each sending and receiving context, we construct a categorical variable<sup>15</sup> for our empirical analyses, which represents the difference between the LFP rates of the sending and the receiving context. To construct this variable, we define two cut-off points to distinguish between contexts with “low”, “medium”, and “high” female LFP rates. We define “high” female LFP contexts as those in which more than two-thirds of the female working-age population were employed ( $\geq 66.67$  per cent). “Medium” contexts are defined as sending and receiving years in which less than two-thirds but more than one-third of females work ( $\geq 33.33$  and  $< 66.67$  per cent).<sup>16</sup> For the “low” context category, in which less than one-third of the females were working ( $< 33.33$  per cent), no receiving years within the receiving countries can be identified as belonging to this category, except for the receiving years in Turkey. To avoid a single-country category, we dropped Turkey as an immigrant receiving country from our analyses. For illustration, Figure 1 shows which of the upper two groups the ESS receiving countries belong to on average within the observation window between 2004 and 2018 based on cases of female immigrants.<sup>17</sup>

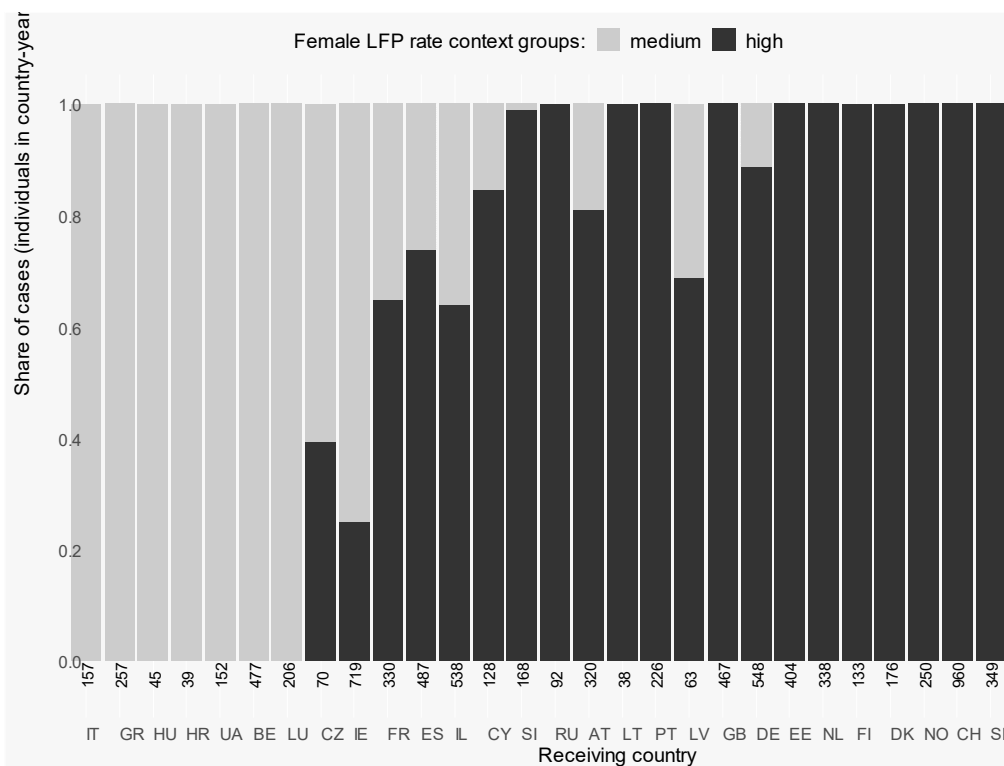
---

15 As we expect to observe higher levels of intergenerational stability for gaps in LFP rates, irrespective of the direction of the gap, we preferred to use a categorical variable rather than a continuous variable to account for potential non-linear effects, while ensuring good interpretability when interacting the LFP gap with the mothers’ employment (compared to the additional inclusion of an interacted quadratic term for a continuous gap). Furthermore, a continuous gap would not allow us to additionally include the sending and the receiving contexts, as they are highly collinear. This problem can be mitigated by using a categorical variable, from which we can – to some extent – infer the sending and the receiving effects.

16 We have decided to use a definition with three different categories, because otherwise the cells in our analyses would be very sparsely populated.

17 Average context shares for all receiving countries can be found in the supplementary material, Table A.7.

Figure 1: Belonging to context groups of female LFP for receiving countries, 2004-2018



Source: WB & OECD data for country-year information on female LFP rates (2004-2018), countries with fewer than 30 observations are left out, ordered by average female LFP across 2004-2018, unweighted, own calculations.

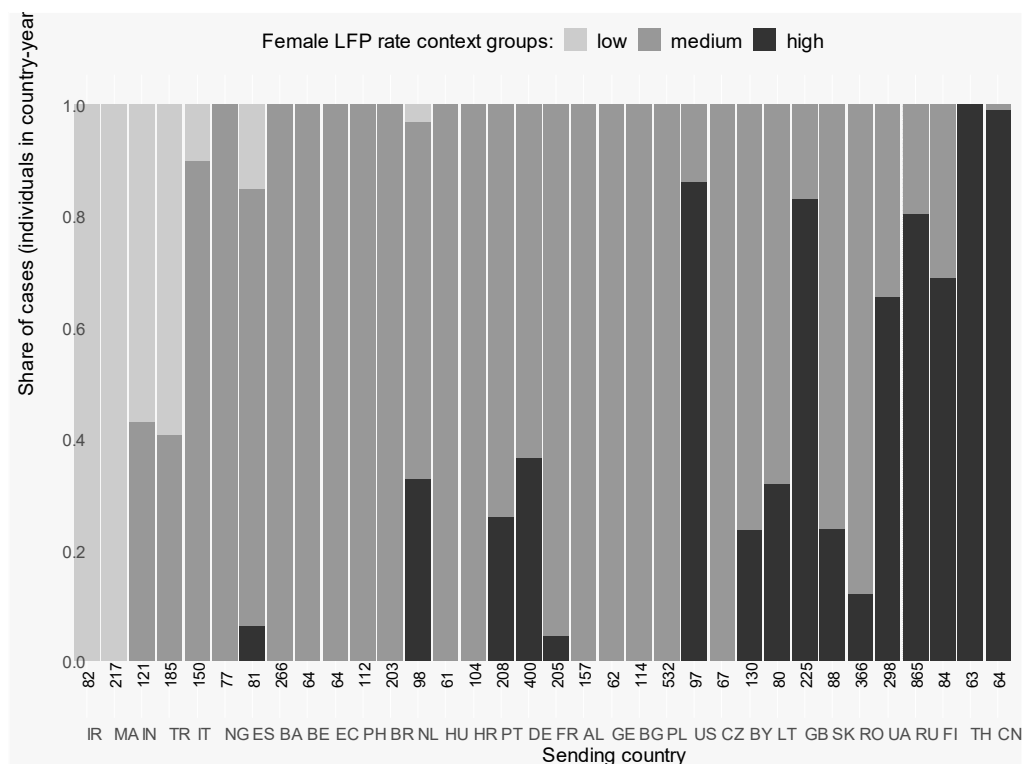
Due to the longer observational window and broader country coverage for the sending contexts than for the receiving contexts, we can identify a substantial number of sending contexts that belong to the “low” female LFP category. In 35 of all 152 female immigrant sending countries with respondents in the ESS, at least one sending year can be identified as being a “low” sending context. Moreover, 20 of them are mainly in this category. The “medium” category forms the largest sending context by far, with 91 countries belonging mainly to this category. Finally, the sending years in 40 countries mainly belong to the “high” category. The average belonging of the major sending countries (more than 60 female immigrants) to the three categories based on cases of female immigrants can be found in Figure 2.<sup>18</sup>

Based on these two variables with two (“medium” and “high” receiving contexts) and three (“low”, “medium”, and “high” sending contexts) context categories, we construct our final variable for female LFP context combinations. This variable consists of six categories that indicate whether the female immigrants were in the same female LFP context

<sup>18</sup> Average context shares for all sending countries can be found in the supplementary material, Table A.7.

category before and after migration (e.g., “medium” to “medium”), or if they experienced a contextual increase (e.g., “medium” to “high”) or decrease (“high” to “medium”) with respect to the female LFP rates after migration compared to in the sending context.

Figure 2: Belonging to context groups of female LFP for the major sending countries, 1960-2018



Source: WB & OECD data for country-year information on female LFP rates (1960-2018), countries with fewer than 60 observations are left out, ordered by average female LFP across 1960-2018, unweighted, own calculations.

As an example, those migrating from a “low” to a “medium” context are migrating from a context in which fewer than one out of three women works to a context in which at least one but not more than two out of three women work. In addition, for those who come from “low” sending contexts, we can identify an even stronger increase if they migrated to a “high” context. This is important, as it is our only option to identify the effect of a (stronger) contextual change for those from a “low” context, since we are lacking the “low” receiving context as a similar female LFP rate reference category (“low” to “low”) for “low” sending contexts.

## 6. Models

We use multilevel models to analyse the effects of the mothers' employment and the differences in female LFP between the sending and the receiving contexts on the females' employment in the receiving countries covered by the ESS. For multiple reasons, multilevel modelling is necessary to address the question and the data structure at hand. With respect to our research question, it is crucial to identify the relevance of the sending and the receiving country contexts, and the magnitude of intergenerational employment stability between different context combinations (sending and receiving contexts), which cannot be assumed to be independent of these contexts. Multilevel modelling allows us to account for this dependence by estimating random intercepts for both contexts.

### 6.1 Modelling details: Specified cross-classified random effects structure

In an ongoing debate, scholars have been discussing the appropriate model specification for highly nested data structures (Schmidt-Catran & Fairbrother 2016), in which individuals are nested in countries and survey years. However, additional considerations have to be taken into account for the data structure at hand. In addition to modelling individuals as being nested in country-specific survey years, which are nested in countries, we at least have to account for sending years as being nested in sending countries. We fit a model that allows the intercepts of women's employment (L1) as our dependent variable to vary by sending years (L2) nested within survey years and sending countries (both L3, cross-classified), which are additionally nested on the highest level of the receiving countries (L4). This specification accounts for the sampling of the ESS data (survey years in receiving countries), while simultaneously accounting for the dependence of different migration populations in the receiving countries (sending countries within receiving countries). The nesting of sending years within the survey years and the sending countries (cross-classified) allows for random intercepts for the combination of sending years and survey years as well as sending years and sending countries – that is, combinations on which our core independent variable relies. Although cross-classified models with a distinct sending-survey-year level fail to converge<sup>19</sup>, these time-varying intercepts come close to this specification, and still provide conservative test statistics.

---

19 We would prefer to have a model with an additional sending-survey-year level for our data structure. However, these models have severe convergence problems even when specifying the sending-survey-year as being only nested within receiving countries, while simultaneously cross-classifying survey years and sending countries on the same level. More complex cross-classified models do not converge either. But simply specifying sending-survey-years (level 2) as being nested within the sending countries (level 3), which are again nested in the receiving countries (level 4) works in terms of convergence. However, this specification has the major shortcoming that it does not account for the survey years being separately nested within the receiving countries, and not only in their combination with the sending years. Removing the sending countries from this random effects equation would allow for the inclusion of survey years on the third level, which again has the major shortcoming that the respondents from the same sending countries are being treated as being independent of each other. This is obviously a violation of our theoretical argumentation. Although neither of these models adequately models the complete data structure, they should at least deliver the most accurate estimates and standard errors for the context



## 6.2 *Linear random multilevel probability models*

Although our dependent variable is the employment of females, and is therefore dichotomous, we use linear probability models instead of non-linear models (e.g., logit models) to improve the comparability of the effects of the mothers' employment and the contextual changes, as well as the interactions of the two across different models (e.g., Allison 1999; Mood 2010).<sup>20</sup> Furthermore, we follow recent recommendations to avoid anti-conservative test statistics by including a random slope for our dependent variable (Heisig & Schaeffer 2019) and for the control variable "number of children in household" in all models, since this variable varies considerably across contexts (Heisig et al. 2017).<sup>21</sup> Due to small sample sizes in some receiving countries that seldom participate in the ESS, we additionally cluster our standard errors on the highest level of the receiving countries (Maas & Hox 2004).

In the following section, we briefly describe the models we use and what purpose they serve for our analytical strategy. In a first step, we estimate empty models (M0) to decompose the variance between all levels while accounting for a discrete time trend for the survey years. Model M1 adds our core independent variable for the mothers' employment on the individual level in order to estimate the "raw" mother effect on female immigrants' employment. Model M2 only adds the female LFP context combinations to the model to identify whether the combinations influence the effect of the mothers' employment. In models M3 and M4, two different sets of individual control variables are added gradually. Model M3 only controls for demographic variables like age and living area; while in model M4, socio-cultural variables, like education, number of children in the household, and foreign language spoken in household, are also added. Model M4 also accounts for intra-European migration and the general economic conditions of the receiving contexts by controlling for GDP per capita and the unemployment rate.

---

combinations variable, and are therefore now used as a robustness check for our analyses. An additional reason for the non-convergence of some of these specifications may be that the cell frequencies within the lowest levels are often only one, which makes a non-convergence very likely.

20 A more precise defence of this choice based on a similar design can be found in Brady et al. (2017).

21 We tested random slopes on both levels (L2, L3) for every control variable based on a model with all control variables. We then computed likelihood ratio tests against the model without random slopes. Random slopes for "number of children in HH" and "married" were the only specifications that improved the fit of the model at a high significance level ( $p < 0.001$ ). However, we chose to only include a random slope for "number of children" because the two variables are highly correlated, and "number of children in HH" improved the model more than "married". We did not include random slopes for the years (receiving years on L3 and sending years on L2) because there is almost no variation at these levels, and because their inclusion would also make the model more computationally demanding, which may lead to non-convergence in some cases.

*Table 1: Specifications of multilevel linear probability models*

Model	Specification
M0	<ul style="list-style-type: none"> <li>• Empty model (only DV (respondent employed (y/n)) and discrete time trend (survey year dummies))</li> <li>• Individuals on the lowest level (L1)</li> <li>• Random intercepts for sending years (L2) nested in survey years and sending countries (L3) nested in receiving countries (L4)</li> </ul>
M1	<ul style="list-style-type: none"> <li>+ Core independent variable on the individual level: Mother employed when respondent was aged 14</li> <li>+ Random slopes for “mother employed” on receiving and sending countries (L3 &amp; L4)</li> </ul>
M2	<ul style="list-style-type: none"> <li>+ Core independent variable for sending and receiving context combinations: Female LFP rate context combinations</li> </ul>
M3	<ul style="list-style-type: none"> <li>+ Individual demographic control variables: age in years, good subjective health (0-4), living area (city, suburbs/periphery of city, rural area), only for immigrants: years since migration (0, 1-5, 6-10, 11-20, 21 and more years)</li> <li>+ Receiving-country-year control variables: GDP per capita (prices from 2010 in 1000 US dollars), unemployment rate in per cent</li> <li>+ Dummy for EU-28 sending countries</li> </ul>
M4	<ul style="list-style-type: none"> <li>+ Individual socio-cultural control variables: education (ES-ISCED categories: I, II, III, IV, V), married, number of children in HH, only foreign language spoken in HH, religious denomination (none, Christian, Jewish, Islamic, eastern religion, other non-Christian), perceived belonging to discriminated minority</li> <li>+ Random slopes for “number of children in HH” on receiving and sending countries (L3 &amp; L4)</li> </ul>
M5	<ul style="list-style-type: none"> <li>+ Cross-level interaction between “mother employed” and “female LFP rate context combinations”</li> </ul>
M6	<ul style="list-style-type: none"> <li>- Demographic and socio-cultural control variables from models M2 and M3</li> <li>- Random slopes for “number of children in HH”</li> </ul>

Cross-level interactions between the mothers’ employment and the female LFP context combinations are introduced in model M5 to investigate the intergenerational employment stability for different context changes. Finally, model M6 estimates the interaction from model M5 without demographic and socio-cultural control variables to check whether the control variables reduce the context-specific effects of the mothers’ employment.

The content of all of the models is summarised in Table 1. Descriptive statistics for immigrants, descendants of immigrants, and natives after list-wise deletion, are presented in the supplementary material (Tables A.1 to A.3).

## 7. Results

In the following, we present our empirical results based on the ESS for the female immigrants, while using the descendants of immigrants and the natives as reference groups. We first investigate the employment rates for the immigrants and their mothers for each combination of sending and receiving contexts. Since differences in average employment rates may be influenced by a number of confounding factors, this analysis does not allow us to draw direct conclusions about the intergenerational stability of female employment. Therefore, we subsequently analyse the correlations between the employment rates of the immigrants and their mothers for each context combination while using correlations for the descendants and the natives as a reference. Finally, we present our results from linear probability multilevel models, which we use to check whether the correlations hold after controlling for additional influences on the individual and the context level, as well as for the complex data structure.

### 7.1 Descriptive results

Based on assimilation arguments, we would expect to observe higher employment rates for the daughters (respondents) than for their mothers if the daughters had themselves migrated to a context with a higher female LFP rate. If the diaspora argument holds, we should see almost no differences between the daughters and their mothers, as the daughters would mimic the behaviour of their mothers if there was a large contextual change. Figure 3 illustrates the employment rates for the female immigrants and their mothers, conditional for each context combination. The left panel displays the rates for the females who migrated to a “medium” receiving context, while the right panel shows the rates for those who migrated to a “high” context.

For “medium” receiving contexts, only minor changes in employment rates between the females and their mothers are observed if the females migrated from “medium” and “high” contexts. While the females who experienced a contextual decrease in the female LFP between the sending and the receiving context (“high” to “medium”) have a slightly lower employment rate than that of their mothers in the sending context<sup>22</sup>, the employment rate is slightly higher for those who migrated from a similar context (“medium” to “medium”). Both employment rates eventually match the average employment rate of the natives (62 per cent) and the descendants of immigrants (63 per cent) in the respective contexts. Although the females who migrated from a “low” sending context have a much higher employment rate than that of their mothers (42 to 22 per cent), their employment rate is still far below the average employment rate of the female natives. On the right panel of Figure 3, we can observe the same pattern of increasing employment rates for those experiencing a contextual increase of female LFP rates for “high” receiving contexts. This increase in the females’ and the mothers’ employment rates is much stronger for those migrating from a “low” context (23 to 47 per cent) than

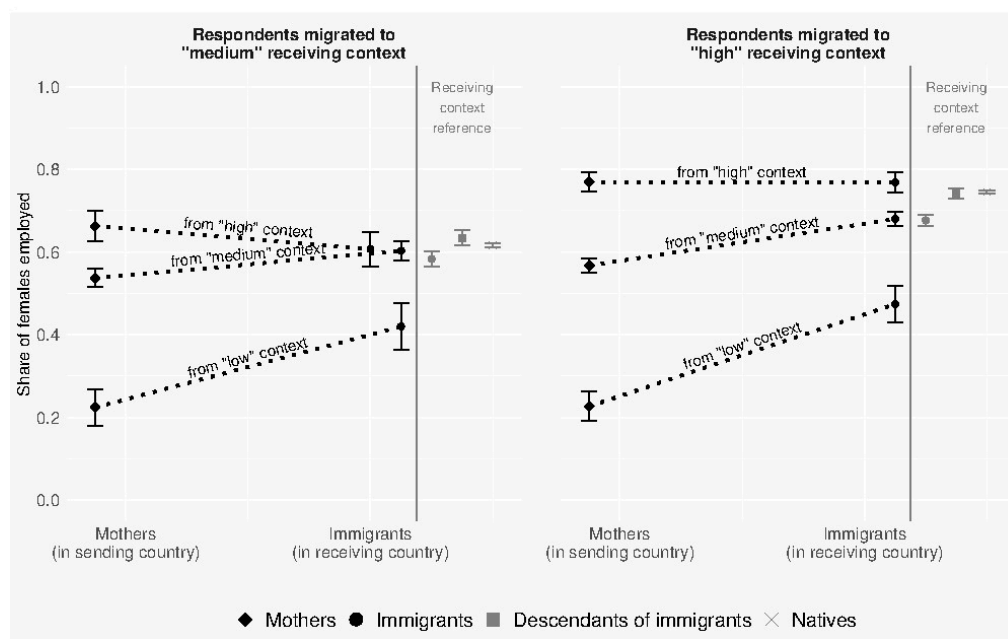
---

22 Although the employment of the female immigrants is, by definition, measured in a more recent context than that of the mothers, the decreasing and stable employment rates for the female immigrants and their mothers indicate that there are no biased estimates due to a dominant positive time effect.

---

for those migrating from a “medium” context (57 to 68 per cent). While the latter group’s rate matches the overall employment rate of female immigrants in this context (68 per cent), it is still below the rates of natives and descendants of immigrants (both 74 per cent). For those female immigrants from a “low” context who experienced the largest contextual changes, this backlog against all reference groups is much stronger, as the female employment rate amounts to only 47 per cent. However, this rate is still slightly higher than that of those female immigrants from a similar context (“low”), who migrated to a “medium” context (42 per cent). Interestingly, those who migrated from a “high” sending context to a “high” receiving context do not show a tendency towards having an employment rate similar to that of natives and descendants of immigrants. These female immigrants have high employment levels similar to those of their mothers in “high” sending contexts, which are already higher than the average employment rates in the “high” receiving contexts. As we cannot identify signs of assimilation for this group, this may indicate a high level of intergenerational stability. However, especially for female immigrants from “low” sending contexts, it is much more difficult to draw clear conclusions about the dominant pattern. They have higher employment rates than their mothers in their sending countries, but their rates also remain clearly behind those of all of the reference groups. Although this is a pattern that shows some signs of assimilation, it does not give us information about the reasons why these female immigrants do not catch up to the natives and the descendants in the same receiving context. While there are a number of potential explanations for this pattern, we focus on the intergenerational stability of (non-)employment as one factor that may contribute to our observation that the females from “low” sending countries have lower employment rates than all of the other groups in our analyses.

Figure 3: Employment rates for female immigrants in the ESS and their mothers by sending and receiving context groups

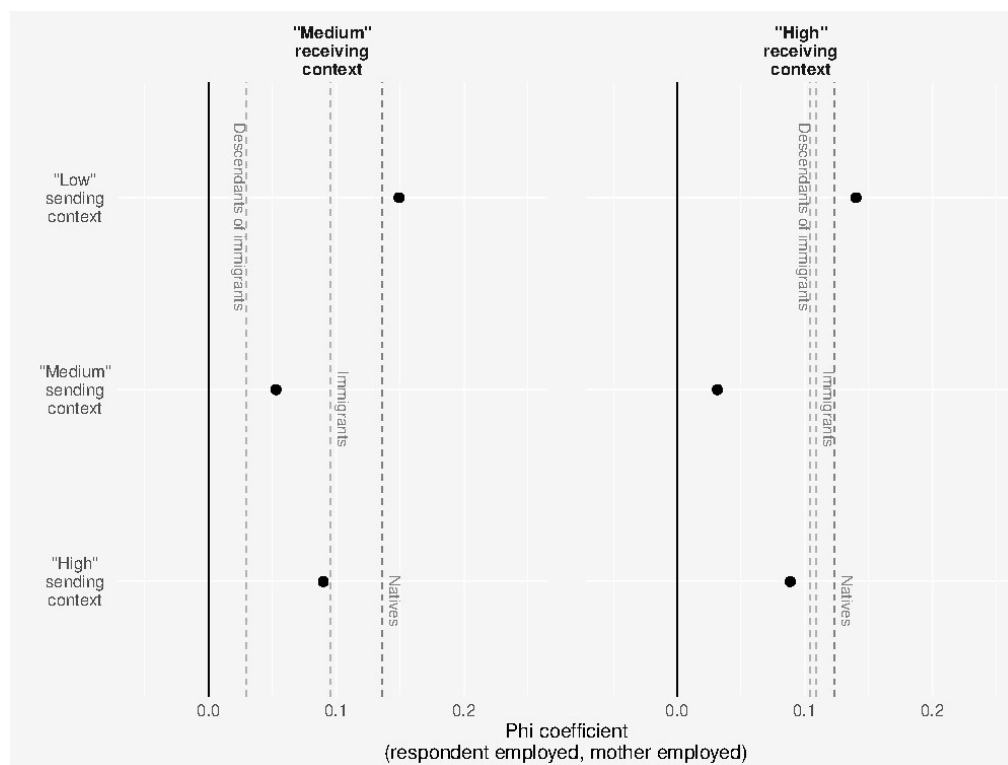


Source: ESS round 2-8 (2004-2018), WB & OECD data for country-year information on female LFP rates (1960-2018), own calculations.

Note: Reference categories “descendants of immigrants” and “natives” are weighted according to the distribution of immigrants over receiving countries within each receiving context.

For all female immigrants, the bivariate correlation between the females immigrants’ employment in the survey year and the mothers’ employment when the respondents were 14 years of age is positive and relatively strong (Phi correlation coefficient  $\varphi=0.11$ ). Even though the majority of the receiving countries with at least 30 observations show positive correlations (23 out of 28 countries with  $n \geq 30$ ), the country-specific correlations range from intergenerational instability in Hungary ( $\varphi = -0.17$ ,  $n=59$ ) and Cyprus ( $\varphi = -0.11$ ,  $n=136$ ) to intergenerational stability in Latvia ( $\varphi=0.48$ ,  $n=54$ ), the Netherlands ( $\varphi=0.24$ ,  $n=342$ ), and Sweden ( $\varphi=0.21$ ,  $n=297$ ). Since the correlations and the average female LFP rates of countries are positively correlated (Pearson correlation coefficient = 0.16; based 28 countries with  $n \geq 30$ ), we do find a slightly lower correlation in the “medium” receiving contexts ( $\varphi=0.10$ ) than in the “high” receiving contexts ( $\varphi=0.11$ ).

Figure 4: Correlation between female immigrants' employment in the ESS and their mothers' employment for sending and receiving context group combinations



Source: ESS round 2-8 (2004-2018), WB & OECD data for country-year information on female LFP rates (1960-2018), own calculations.

Note: Correlations displayed are Phi correlation coefficients. Reference categories "descendants of immigrants" and "natives" are weighted according to the distribution of immigrants over receiving countries within each receiving context.

To investigate the relationship between the sending and the receiving contexts with respect to this correlation, we analyse these correlations for the six groups of contextual changes in the female LFP rates between the sending and the receiving contexts. Correlations between the mothers' and the respondents' employment for all six groups are displayed as dots in Figure 4. Dotted lines indicate the correlations for the reference groups within the respective receiving contexts. For the female immigrants who migrated to a "medium" receiving context (left panel), stronger correlations can be found for context combinations that are characterised by contextual changes. The female immigrants from a "low" ( $\varphi=0.15$ ) or a "high" ( $\varphi=0.09$ ) context show somewhat higher levels of intergenerational stability in employment than those who migrated from a similar "medium" context ( $\varphi=0.05$ ). For those who migrated from a "low" context, a slightly weaker correlation can be found if they migrated to a "high" ( $\varphi=0.14$ ) instead of a "medium" context. For those experiencing an increasing female LFP rate from "medium"

to “high”, a relatively low correlation can be found ( $\rho=0.03$ ). Contrary to the results for the “medium” receiving contexts, a contextual change is not accompanied by a higher correlation between the mothers’ and the daughters’ employment for those who migrated to a “high” receiving context. Moreover, the correlation is relatively high for those who are staying in a “high” context ( $\rho=0.09$ ). Overall, these correlations do not show clear patterns for the contextual changes. Without controlling for additional influences, we mainly observe different correlations for different sending contexts: i.e., the “low” sending contexts are associated with the strongest intergenerational stability, followed by the “high” sending contexts. For the females who migrated from a medium context, the lowest correlations can be found.

To summarise, the descriptive results show employment rates for the female immigrants that are much closer to those of the natives than to the employment rates of their mothers in their home countries. However, for those female immigrants from “low” contexts, the employment rates in the receiving country remain substantially lower than those of the natives. While converging employment rates tend to support assimilation arguments, the high level of intergenerational stability in (non-)employment observed for the female immigrants from the “low” sending contexts does not support this interpretation. On the one hand, a lower correlation for stronger contextual changes based on assimilation arguments would be expected. On the other hand, the results do not support the diaspora argumentation either, as we also do not find stronger correlations for stronger contextual changes. The differences between those migrating from a “low” to a “high” context compared to those from “medium” contexts are negligible. We even find a high level of intergenerational stability for those staying in “high” contexts. However, these descriptive statistics do not account for additional explanatory variables for the female respondents’ employment, like socio-demographic and cultural variables. Furthermore, the general economic conditions of the receiving contexts may also contribute to different employment behaviours in the receiving contexts. To estimate more accurate and comparable correlations, additional influences are controlled for in the following multilevel models, which also provide suitable test statistics by accounting for the complex data structure.

## 7.2 Multilevel modelling results

In the following, we estimate linear probability multilevel models for the female immigrants, with “being employed” as a dependent variable. In a first step, an empty model M0 is estimated, which only accounts for a discrete time trend,<sup>23</sup> and decomposes the variation in the respondents’ employment between the receiving countries (L4) and the sending countries nested in the former (L3), as well as between the receiving years (also L3) and the sending years (L2). These models reveal that the sending countries account for around 8.8 per cent of the total variation in employment of immigrants, while only 2.5 per cent of the variation can be attributed to the receiving countries. Thus, the two contexts together make up 11.3 per cent of the total variance. The variation across years

---

23 Effects of the discrete time trends for the following models can be found in the supplementary material, Table A.4.

accounts for less than two per cent for the sending (1.6 per cent) and the receiving years (1.5 per cent).

Models M1 to M4 displayed in Table 2 investigate the effects of the mothers' employment when the female respondents were 14 years of age, as well as the effects of the context combinations between the sending and the receiving countries. Models M1 estimates the effects of the mothers' employment on the female immigrants' employment, while only controlling for a discrete survey year time trend, and accounting for the complex data structure by allowing random intercepts for the female immigrants' employment and random slopes for the mothers' employment. In this model, a substantial effect of the mothers' employment on the respondents' employment can be found. Thus, having a working mother increases the probability of the daughter's employment by 6.7 percentage points. Integrating context combinations in model M2 reduces the effect of the mothers' employment to 5.1 percentage points.<sup>24</sup>

Table 2: Linear multilevel probability models for female immigrants' employment (M1, M2 & M3)

DV: Respondent employed	M0	M1	M2	M3	M4
Ref.: Respondent not employed	$\beta$	$\beta$	$\beta$	$\beta$	$\beta$
Survey year dummies	yes	yes	yes	yes	yes
Sending country EU-28 (Ref.: no)				0.0784***	0.0347*
GDP per capita (in 100k US dollar)				0.0009	0.0005
Unemployment rate (in per cent)				-0.0099***	-0.0098***
Female LFP rate context					
Sending – Receiving					
low – medium			-0.172**	-0.165***	-0.0908**
medium – medium			Ref.	Ref.	Ref.
high – medium			-0.0209	-0.0069	-0.0383
low – high			-0.141**	-0.137***	-0.0731
medium – high			0.0161	-0.0007	-0.0091
high – high			0.0401	0.0379	0.0213
Mother employed (Ref.: no)		0.0675***	0.0513**	0.0504**	0.0243

24 However, separate models with separate variables for the sending and the receiving contexts (results not shown) reveal that this decrease can only be attributed to differences between the sending contexts ( $\beta(\text{mother})=0.051$ ) and not to differences between the receiving contexts ( $\beta(\text{mother})=0.068$ ).



Table 2: Linear multilevel probability models for female immigrants' employment (M1, M2 & M3) (continued)

DV: Respondent employed	M0	M1	M2	M3	M4
Ref.: Respondent not employed	$\beta$	$\beta$	$\beta$	$\beta$	$\beta$
<b>Controls</b>					
Age categories (Ref.: 18-29)					
30-39				-0.0118	0.0256
40-49				0.0237	0.0574
50-64				0.0145	-0.0070
Subjective health				0.0368***	0.0304***
Citizen of country				0.000870	-0.00821
Living area (Ref.: City)					
Suburbs, periphery of city				-0.0296	-0.0119
Rural area				-0.0617**	-0.0329
Years since migration (Ref.: 0)					
1 to 5				0.0165	0.0760
6 to 10				0.0441	0.130*
11 to 20				0.0974	0.187***
21 and up				0.130*	0.216***
Education (ES-ISCED)					
ES-ISCED II					0.0747**
ES-ISCED III					0.114***
ES-ISCED IV, V					0.221***
Married (Ref.: no)					-0.0725***
Number of children in HH					-0.0562***
Religious denom. (Ref.: none)					
Christian					0.0205
Jewish					0.00610
Islamic					-0.112***
Eastern religion					-0.0569
Other non-Christian					-0.0354
Only foreign lang. in HH (Ref.: no)					-0.0264
Perceived discrimination (Ref.: no)					-0.0410*
Intercept	0.569***	0.533***	0.550***	0.346***	0.335***
Var(Receiving C's) (L4)	0.0058	0.0048	0.0040	0.0056	0.0031
Var(Mother employed)		0.0026	0.0019	0.0009	0.0007
Var(Number of children)					0.0020
Var(Sending C's) (L3)	0.0202	0.0186	0.0133	0.0111	0.0049
Var(Mother employed)		0.0018	0.0028	0.0027	0.0047
Var(Number of children)					0.0021
Var(Receiving years) (L3)	0.0034	0.0033	0.0035	0.0021	0.0018
Var(Sending years) (L2)	0.0036	0.0037	0.0037	0.0030	0.0027
Var(Respondents)	0.1960	0.1948	0.1953	0.1940	0.1805
Log likelihood	-4178.2	-4163.6	-4140.7	-4080.9	-3880.9
AIC	8382.3	8359.2	8323.5	8231.8	7859.7
BIC	8470.3	8467.5	8465.7	8468.8	8191.5
N(Receiving C's)	34	34	34	34	34
N(Individuals)	6441	6441	6441	6441	6441

Source: ESS round 2-8 (2004-2018), WB & OECD data for country-year information on female LFP rates (1960-2018) for LFP context combinations, unweighted, own calculations.

Note:  $\beta$  = linear probability point estimate, standard errors are omitted due to table size, but can be found in the supplementary material (table A.8). Significance levels: \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$  (two-sided tests).

With respect to the context combinations, negative effects are found for the female immigrants who migrated from a “low” female LFP context. This finding is in line with the descriptive results for the employment rates. But as this effect can be observed for the “medium” and the “high” receiving contexts, and is even stronger for those migrating to a “medium” context ( $\beta=-0.172$ ) compared to those migrating to a “high” context ( $\Delta\beta=0.0161-(-0.141)=0.1571$ ), there is no indication of an effect of stronger contextual change. Moreover, there is no significant difference in employment for the female immigrants migrating from a “medium” context to a similar “medium” context compared to for those migrating to a “high” context. Although the effects for the “high” sending and receiving contexts lack statistical significance compared to the effects for those staying in “medium” contexts, the direction and the strength of the estimated effects for all context combinations match the descriptive results for the employment rates.

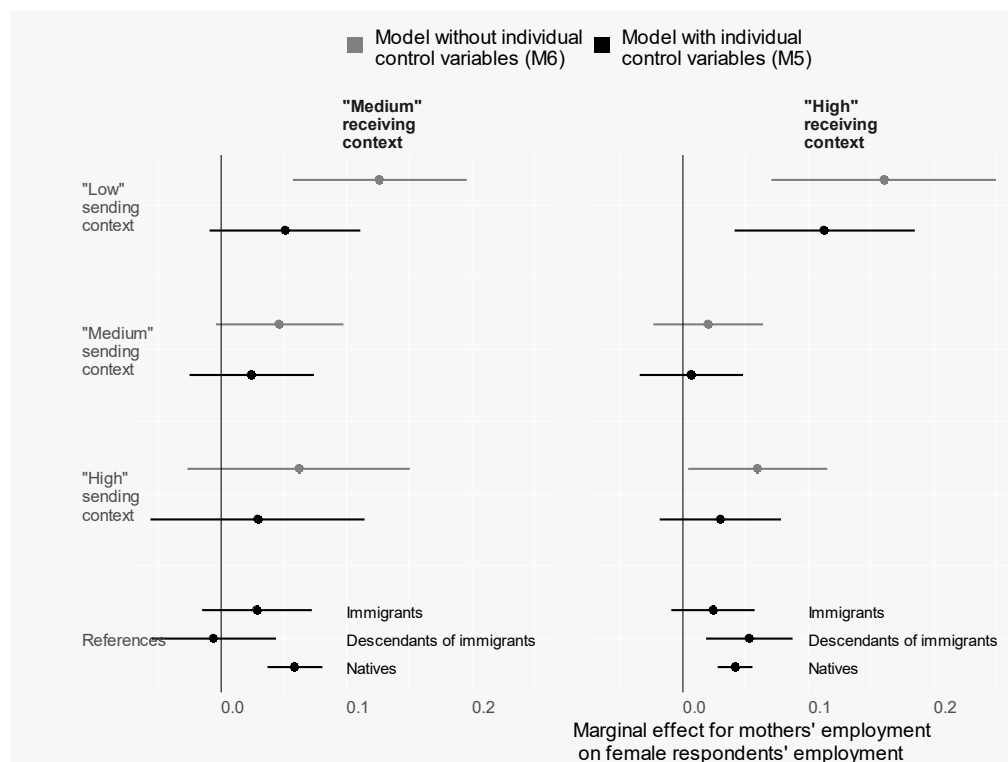
To check whether these results hold when controlling for additional influences like different compositions of individual characteristics between sending and receiving countries, we gradually add to the models two sets of control variables for individual demographic and context characteristics, as well as individual socio-cultural characteristics. Model M3 accounts for demographic variables like age, citizenship, and living area; as well as for intra-European migration (EU-28), gross domestic product (GDP) per capita, and the unemployment rates for the receiving contexts. These control variables do not substantially change the patterns and the significance of the context combination effects. The effect size of the mothers’ employment on the respondents’ employment also stays basically the same ( $\beta(M2)=0.051$ ,  $\beta(M3)=0.050$ ). Hence, the demographic control variables do not explain the intergenerational stability of female employment in the receiving countries.<sup>25</sup> When additionally controlling for socio-cultural variables like education, “foreign language spoken in household”, and marital status in model M4, the results are different. Although the patterns and the statistical significance of the effects for contextual change are again not affected by these control variables, they do substantially reduce the effect of the mothers’ employment on the female respondents’ employment: i.e., the effect drops from five to 2.4 percentage points, and is no longer significant. This finding suggests that socio-cultural variables can explain a substantial part of the intergenerational stability in employment for female immigrants. Most notably, the influence of education (see also footnote 26), years since migration, and religion are very strong. However, based on the multilevel analyses we have performed so far, it still remains unclear whether the migration-specific contextual change influences this intergenerational stability.

To check whether there are differences in the effects of the mothers’ employment on the female immigrants’ employment for different context combinations after controlling for all variables of models M4, an interaction between the mothers’ employment and the context combinations is added in model M5. To contrast the effects of these saturated models with raw estimates, which only account for the data structure, controls for intra-EU migration, receiving context variables (GDP per capita and unemployment rate), and a

25 Since we are aware that the classification of “education” as a socio-cultural variable is debatable, we also checked the effect of “mother employed” for a model with “education” as a demographic variable. In this model, the estimated effect for “mother employed” is indeed substantially lower, but still significant ( $\beta(M2+education)=0.033$ ,  $p(M2+education)<0.05$ ).

discrete survey year time trend, an additional model M6 without individual control variables is estimated. Figure 5 displays the estimated marginal effects of the mothers' employment from both models for each context combination (full results in supplementary material, Table A.5). Overall, the patterns of the effects of the mothers' employment are very similar to those reported in the descriptive results, especially based on the models without individual control variables. After controlling for competing influences and the data structure, the effect of the mothers' employment is statistically significant on the five per cent level for those migrating from a "low" to a "high" female LFP context. That is, if the immigrants migrated from a context in which no more than one-third of women are employed to a context in which at least two-thirds of women are employed, the intergenerational stability is especially strong. The mothers' employment increases the female immigrants' probability of employment by more than 11 percentage points ( $p < 0.01$ ) in this case. Unlike in the descriptive results, this effect is much stronger than it is for the respondents who migrated to a "medium" receiving context. In this case, the mothers' employment increases female immigrants' probability of employment by only 5.2 percentage points ( $p < 0.1$ ). In all other context combinations, the mothers' employment fails to reach common levels of statistical significance in these saturated models.

Figure 5: Marginal effects of mothers' employment on female immigrants' employment in the ESS for sending and receiving context group combinations



Source: ESS round 2-8 (2004-2018), WB & OECD data for country-year information on female LFP rates (1960-2018) for LFP context-combinations, unweighted, own calculations.

Note: Marginal effects with 95 per cent confidence intervals. Reference effects for immigrants are calculated based on the interaction in model M5. Weighted reference effects for descendants of immigrants and natives are estimated based on separate models for both receiving contexts. Full results for descendants of immigrants and natives can be found in the supplementary material, Table A.5.

Based on the theoretical arguments regarding assimilation, we expected to find a lower level of intergenerational stability in LFP for migration between different contexts. In contrast, if a diaspora effect predominated, we would expect to observe a high level of intergenerational stability if the contextual change between the sending and the receiving context is large. Our analyses show that migration between “medium” and “high” contexts is not very informative for identifying assimilation or diaspora effects. The “low” sending context is the only sending context with a substantial effect of the mothers' employment after accounting for the data structure and additional factors explaining the female immigrants' employment. Unfortunately, this is also the only context without a reference group on the receiving context side. Therefore, we cannot estimate the intergenerational stability for those staying in “low” contexts. But the difference between the effect sizes of

the mothers' employment between migration to a "medium" and a "high" context (5.2 to 11.3 percentage points) indicate that a larger contextual change leads to greater intergenerational stability – at least for this group. Although a direct test of the two estimates against each other fails to reach statistical significance, these results appear to support diaspora arguments more than assimilation arguments – at least for the intergenerational stability of female employment for this group. As was shown in the descriptives, this does not mean that we do not see any assimilation with respect to employment rates. But the assimilation in the employment rates for the female immigrants from the "low" female LFP contexts cannot be explained by a particularly low level of intergenerational stability in (non-)employment. In contrast, the remaining gap between the immigrants from the "low" sending contexts and the natives in the receiving countries can to some extent be traced back to a higher level of intergenerational stability in (non-)employment within this group.

### 7.3 Robustness checks

To check our results for robustness, we tested different specifications of model M5 and compared the marginal effects<sup>26</sup> with those presented above. A logistic model reveals the same pattern of marginal effects. With respect to the statistical significance, the effect of the mothers' employment within "low-medium" is no longer statistically significant on the 10 per cent level. A model without "perceived discrimination" as an explanatory variable yields stronger and more significant effects of the mothers' employment for "low-medium" and "low-high", with "low-high" now being significant at the 10 per cent level. The findings remain similar for a model that uses a dependent variable fitting a more common operationalisation of LFP by including those female immigrants searching for a job as belonging to the labour force (dependent variable=1). As in the logistic model, both models show that the mothers' employment has a stronger effect in "low-high" than in "low-medium". Models with different specifications of the random effects (i.e., random intercepts and slopes) yield similar results as well. Nesting sending-receiving-years (L2) within sending countries (L3), which are again nested in receiving countries (L4) while letting "mother's employment" and "number of children in HH" vary within L3 and L4, yields similar patterns of effect sizes. The only difference is the loss of marginal significance ( $p < 0.1$ ) for "mother's employment" in the "low-medium" category. When nesting sending-country-years (L2) within receiving years (L3), which are nested in receiving countries while letting "mother's employment" and "number of children in HH" vary on L4, the effect of the mothers' employment in "low-medium" is significant on the 10 per cent level. Finally, we checked whether the results hold when using a weaker operationalisation of "low" sending contexts. A cut-off point of 40 per cent between the low and the medium contexts leads to fewer differences in the effect of the mothers' employment between the context combinations. Although no marginal effect is significant when this weaker operationalisation is used, the effect is still strongest in the "low-high" category ( $\beta = 0.07$ ), and is stronger than the effect in the "low-medium" (0.04) category.

---

26 The marginal effects for all robustness checks can be found in the supplementary material, Table A.6.

## 8. Discussion

In public debates in many western countries, the low female employment rates in immigrant families from non-western countries are often said to be the result of traditional gender norms inherited from patriarchal societies. This view implies that large differences in the gender equality levels between sending and receiving countries are associated with high levels of intergenerational stability between mothers and daughters. However, from the perspective of assimilation theories as well as of cultural learning, the opposite effect appears to be more plausible: i.e., particularly for females who migrate to a country very similar to their sending context in terms of gender equality and labour markets, the role modelling of mothers may be more relevant for daughters who find themselves confronted with similar institutional and societal constraints and expectations. If the contextual differences between the sending and the receiving countries are large, and immigrant mothers and daughters therefore experience opposing cultural norms, the level of intergenerational stability in their employment behaviour should be low.

Results based on individual-level data from the European Social Survey and time-series country-level data from the World Bank and the OECD show that migration affects levels of intergenerational stability in female employment differently for immigrants who experience large contextual differences. On the one hand, it has been reported that female immigrants generally adapt to the LFP rate of the country they move to. This finding clearly supports the assimilation hypothesis, which in turn leads to the expectation that the intergenerational transmission of employment rates will be lower. On the other hand, our analysis of levels of intergenerational stability has drawn a more detailed picture of the gap between the sending and the receiving context. Immigrants' levels of intergenerational stability are low in general, and are lower than those of natives when the contextual change is small (e.g., "medium" to "high"). However, when the contextual change is large, the levels of intergenerational stability are also high, which is puzzling in light of assimilation theory. For the members of this group who experience large contextual changes, our results lend support to the diaspora hypothesis, which suggests that levels of familial stability are higher in contexts in which individuals experience cultural shocks through migration. This can then be seen as one possible explanation for why the members of this particular group have even more trouble catching up to the receiving country's labour market in terms of their LFP than groups who experience smaller contextual changes. These findings do not necessarily contradict the assimilation hypothesis, but they can be seen as helping to explain why assimilation can be observed more clearly among the descendants of immigrants than among the immigrants themselves.

One underlying assumption of the analysis is that immigrant families are representative of their sending countries in terms of women's employment patterns. Selective migration as well as selective return migration could be correlated with women's levels of motivation to find employment. It may be the case that immigrants have attitudes that are not typical of their traditional sending country, and that they left their country of birth because they prefer more egalitarian societies. If more egalitarian receiving countries tend to attract women from traditional societies who are more motivated to seek employment, the cultural differences between immigrants and natives in those contexts

may not be as large as would be anticipated. We therefore expect that the possibility of selective migration generally reduces differences between culturally different sending and receiving countries. Thus, given the design of the statistical method we applied, we expect that our reported estimates are conservative.

The role of education should also receive special attention in this kind of investigation. Along with years since migration and religion, education is one of the largest determinants of female immigrants' labour force participation rates. The inclusion of education in the regression models, which had notable effects on the employment probability of female immigrants, contributed substantially to the reduction of the effect of mothers' employment. This is an interesting direction for further research, not only because levels of intergenerational stability in employment are mediated by education, but also because education may be able to break the intergenerational link in female immigrants' (non-)employment. However, the circumstances under which this could be the case – whether, for example, educational degrees must be acquired pre- or post-migration – remains unknown. Unfortunately, conducting a more in-depth analysis of educational effects was outside the scope of this paper. However, an investigation of the educational pathways of (female) immigrants and their effects on labour force participation rates seems to be a fruitful direction for further research.

Our paper shows that the levels of intergenerational stability of female employment differed for immigrants who experienced different degrees of contextual change, ranging from non-existent to high. A central conclusion that we draw from these findings is that levels of intergenerational stability seem to be sensitive to the combination of the sending and the receiving context. Moreover, it appears that diaspora effects are more important than has been acknowledged by previous research.

## References

- Alaverdyan, S. & Zaharieva A. (2019). Immigration, social networks and occupational mismatch. *Bielefeld Working Papers in Economics and Management*, 4, 2019, 14-48.  
<https://doi.org/10.2139/ssrn.3369643>
- Alba, R. (1997). Rethinking assimilation theory for a new era of immigration. *International Migration Review* 31, 4, 826-874.  
<https://doi.org/10.2307/2547416>
- Allison, P.D. (1999). Comparing logit and probit coefficients across groups. *Sociological Methods & Research*, 28, 2, 186-208.  
<https://doi.org/10.1177/0049124199028002003>
- Antecol, H. (2000). An examination of cross-country differences in the gender gap in labor force participation rates. *Labour Economics* 7, 4, 409-426.  
[https://doi.org/10.1016/S0927-5371\(00\)00007-5](https://doi.org/10.1016/S0927-5371(00)00007-5)
- Arrow, K. (1971). *The theory of discrimination*. Conference paper. Princeton.
- Becker, G.S. (1971). *The economics of discrimination*. Chicago: The University of Chicago Press.
- Becker, G.S. (1991). *A treatise on the family* (enlarged ed.). Cambridge: Harvard University Press.

- Berry, J.W. (1992). Acculturation and adaptation in a new society. *International Migration* 30, 69-85.  
<https://doi.org/10.1111/j.1468-2435.1992.tb00776.x>
- Bhatia, S. & Ram, A. (2001). Rethinking 'acculturation' in relation to diasporic cultures and postcolonial identities. *Human Development* 44, 1, 1-18.  
<https://doi.org/10.1159/000057036>
- Bhatia, S. & Ram, A. (2009). Theorizing identity in transnational and diaspora cultures: A critical approach to acculturation. *International Journal of Intercultural Relations*, 33, 2, 140-149.  
<https://doi.org/10.1016/j.ijintrel.2008.12.009>
- Binder, A. (2018). Inter-generational transmission and the 21st century rise in skilled mothers' labor supply. *SSRN Electronic Journal*, 1-44.  
<https://doi.org/10.2139/ssrn.3265242>
- Blau, F.D. & Kahn, L.M. (2015). Substitution between individual and source country characteristics: Social capital, culture, and US labor market outcomes among immigrant women. *Journal of Human Capital*, 9, 4, 439-482.  
<https://doi.org/10.1086/683542>
- Borjas, G. J. (1994). The economics of immigration. *Journal of Economic Literature*, 32, 4, 1667-1717.
- Boyd, M. (1984). At a disadvantage: The occupational attainments of foreign born women in Canada. *International Migration Review*, 18, 4, 1091-1119.  
<https://doi.org/10.1177/019791838401800410>
- Brady, D., Finnigan R. M. & Hübgen S. (2017). Rethinking the risks of poverty: A framework for analyzing prevalences and penalties. *American Journal of Sociology*, 123, 3, 740-786.  
<https://doi.org/10.1086/693678>
- Breen, R. (2004). *Social mobility in Europe*, Oxford: Oxford University Press.  
<https://doi.org/10.1093/0199258457.001.0001>
- Breen, R. & Luijckx, R. (2004). Social mobility in Europe between 1970 and 2000. In: Breen R. (Ed.), *Social mobility in Europe*. Oxford: Oxford University Press, 37-76.  
<https://doi.org/10.1093/0199258457.003.0003>
- Bürmann, M., Haan, P., Kroh, M. & Troutman, K. (2018). Beschäftigung und Bildungsinvestitionen von Geflüchteten in Deutschland. *DIW Wochenbericht*, 85, 42, 919-928.  
[http://doi.org/10.18723/diw\\_wb:2018-42-4](http://doi.org/10.18723/diw_wb:2018-42-4)
- Cheung, S.Y. & Phillimore, J. (2014). Refugees, social capital, and labour market integration in the UK. *Sociology* 48, 3, 518-536.  
<https://doi.org/10.1177/0038038513491467>
- Chiswick, B.R. & Miller, P.W. (1990). Language in the labor market: the immigrant experience in Canada and the United States. *Discussion paper (Department of Economics, Queen's University)*, 784.
- Chiswick, B.R. & Miller, P.W. (2003). The complementarity of language and other human capital: Immigrant earnings in Canada. *Economics of Education Review*, 22, 5, 469-480.  
[https://doi.org/10.1016/S0272-7757\(03\)00037-2](https://doi.org/10.1016/S0272-7757(03)00037-2)



- Chiswick, B.R. & Miller, W. (2011). The 'negative' assimilation of immigrants: A special case. *Industrial and Labor Relations Review*, 64, 3, 502-525.  
<https://doi.org/10.1177/001979391106400305>
- Chort, I. (2017). Migrant network and immigrants' occupational mismatch. *The Journal of Development Studies*, 53, 11, 1806-1821.  
<https://doi.org/10.1080/00220388.2016.1219344>
- Clark, R., Ramsbey, T.W. & Adler, E.S. (1991). Culture, gender, and labor force participation: A cross-national study. *Gender and Society*, 5, 1, 47-66.
- Crenshaw, K. (1989). Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *University of Chicago Legal Forum*, 1, 139-167.
- Diehl, C., Koenig M. & Ruckdeschel K. (2009). Religiosity and gender equality: Comparing natives and Muslim migrants in Germany. *Ethnic and Racial Studies*, 32, 2, :278-301.  
<https://doi.org/10.1080/01419870802298454>
- Donato, K.M., Piya, B. & Jacobs A. (2014). The double disadvantage reconsidered: Gender, immigration, marital status, and global labor force participation in the 21st century. *International Migration Review*, 48, 1, 335-376.  
<https://doi.org/10.1111/imre.12142>
- Estrada, V. (2018). Migrant women labor-force participation in Germany. *IAB Discussion Paper*. No. 101.
- Farré, L. & Vella F. (2013). The intergenerational transmission of gender role attitudes and its implications for female labour force participation. *Economica*, 80, 318: 219-247.  
<https://doi.org/10.1111/ecca.12008>
- Fernández, R. (2011). Does culture matter? In: Benhabib, J., Bisin, A. & Jackson, M.O. (Eds.), *Handbook of social economics. Volume 1*. San Diego: Elsevier, 481-510.  
<https://doi.org/10.1016/B978-0-444-53187-2.00011-5>
- Fernández, R. (2013). Cultural change as Learning: The evolution of female labor force participation over a century. *American Economic Review*, 103, 1, 472-500.  
<https://doi.org/10.1257/aer.103.1.472>
- Fernández, R. & Fogli, A. (2009). Culture: An empirical investigation of beliefs, work, and fertility. *American Economic Journal: Macroeconomics*, 1, 1, 146-177.  
<https://doi.org/10.1257/mac.1.1.146>
- Fogli, A. & Veldkamp L. (2011). Nature or nurture? Learning and the geography of female labor force participation. *Econometrica*, 79, 4, 1103-1138.  
<https://doi.org/10.3982/ECTA7767>
- Fortin, N.M. (2005). Gender role attitudes and the labour-market outcomes of women across OECD countries. *Oxford Review of Economic Policy*, 21, 3, 416-438.  
<https://doi.org/10.1093/oxrep/gri024>
- Frank, K., Hou, F., Statistics Canada, Statistics Canada, Analytical Studies Branch, Statistics Canada & Social Analysis and Modelling Division (2015). *Source-country female labour force participation and the wages of immigrant women in Canada*. Ottawa: Social Analysis and Modelling Division, Statistics Canada.
- Friedberg, R.M. (2000). You can't take it with you? Immigrant assimilation and the portability of human capital. *Journal of Labor Economics*, 18, 2, 221-251.  
<https://doi.org/10.1086/209957>

- Galassi, G., Koll, D. & Mayr, L. (2019). The intergenerational correlation of employment: is there a role for work culture? *IZA Discussion Paper Series* No. 12595.
- Greenman, E. & Xie, Y. (2008). Double jeopardy? The interaction of gender and race on earnings in the United States. *Social Forces*, 86, 3, 1217-1244.  
<https://doi.org/10.1353/sof.0.0008>
- Hall, S. (1994). Cultural identity and diaspora. In: Williams, P. & Chrisman, L. (Eds.), *Colonial discourse and post-colonial theory: a reader*. London: Harvester Wheatsheaf, 227-237.
- Heath, A. F., Cheung, S.Y. & Smith, S.N. (2007). *Unequal chances: Ethnic minorities in western labour markets*. Oxford: Oxford University Press.
- Heisig, J.P. & Schaeffer, M. (2019). Why you should always include a random slope for the lower-level variable involved in a cross-level interaction. *European Sociological Review*, 35, 2, 258-279.  
<https://doi.org/10.1093/esr/jcy053>
- Heisig, J.P., Schaeffer, M. & Giesecke, J. (2017). The costs of simplicity: why multilevel models may benefit from accounting for cross-cluster differences in the effects of controls. *American Sociological Review*, 82,4, 796-827.  
<https://doi.org/10.1177/0003122417717901>
- Honaker, J. & King, G. (2010). What to do about missing values in time-series cross-section data. *American Journal of Political Science*, 54, 2, 561-581.  
<https://doi.org/10.1111/j.1540-5907.2010.00447.x>
- Honaker, J., King, G. & Blackwell, M. (2011). Amelia II: A program for missing data. *Journal of Statistical Software*, 45, 7, 1-47.  
<https://doi.org/10.18637/jss.v045.i07>
- Inglehart, R. (1989). *Kultureller Umbruch*. Frankfurt: Campus Verlag.
- Inglehart, R. & Norris, P. (2003). *Rising tide*. Cambridge: Cambridge University Press.
- Kalter, F. (2002). Demographic change, educational expansion, and structural assimilation of immigrants: The case of Germany. *European Sociological Review*, 18, 2, 199-216.  
<https://doi.org/10.1093/esr/18.2.199>
- Kalter, F. & Granato, N. (2007). Educational Hurdles on the Way to Structural Assimilation in Germany. In: Heath, A. (Ed.), *Unequal chances: Ethnic minorities in western labour markets*. Oxford: Oxford University Press, 271-319.
- Kawaguchi, D. & Miyazaki, J. (2009). Working mothers and sons' preferences regarding female labor supply: Direct evidence from stated preferences. *Journal of Population Economics*, 22, 1, 115-130.  
<https://doi.org/10.1007/s00148-007-0175-2>
- Khoudja, Y. & Fleischmann, F. (2015). Ethnic differences in female labour force participation in the Netherlands: Adding gender role attitudes and religiosity to the explanation. *European Sociological Review*, 31, 1, 91-102.  
<https://doi.org/10.1093/esr/jcu084>
- Kofman (2009). *Gender and international migration in Europe*. London: Routledge.
- Kreyenfeld, M. (2010). Uncertainties in female employment careers and the postponement of parenthood in Germany. *European Sociological Review*, 26, 3, 351-366.  
<https://doi.org/10.1093/esr/jcp026>

- Kreyenfeld, M. & Konietzka, D. (2002). The performance of migrants in occupational labour markets. *European Societies*, 4, 1, 53-78.  
<https://doi.org/10.1080/14616690220130991>
- Krieger, M. (2020). Tied and troubled: revisiting tied migration and subsequent employment. *Journal of Marriage and Family*, 82, 3, 934-952.  
<https://doi.org/10.1111/jomf.12620>
- Maas, C.J.M. & Hox, J.J. (2004). Robustness issues in multilevel regression analysis. *Statistica Neerlandica* 58, 2, 127-137.  
<https://doi.org/10.1046/j.0039-0402.2003.00252.x>
- Mannheim, K. (1928). Wissenssoziologie. *Soziologische Texte* 28. München: Luchterhand.
- Milewski, N. (2013). Erwerbsbeteiligung und Einstellungen zur Familie von türkischen Migrantinnen im Generationenvergleich. *Zeitschrift für Familienforschung*, 25, 1, 53-74.  
<https://doi.org/10.20377/jfr-163>
- Mood, C. (2010). Logistic regression: Why we cannot do what we think we can do, and what we can do about it. *European Sociological Review*, 26, 1, 67-82.  
<https://doi.org/10.1093/esr/jcp006>
- OECD (2013). Drivers of female labour force participation in the OECD. Vol. 145. *OECD Social, Employment and Migration Working Papers*. No. 145.  
<https://doi.org/10.1787/5k46cvrnms6-en>
- OECD (2017). *Catching up? Intergenerational mobility and children of immigrants*. OECD.  
<https://doi.org/10.1787/9789264288041-en>
- Olivetti, C., Patacchini, E. & Zenou, Y. (2018). Mothers, peers, and gender-role identity. *Journal of the European Economic Association*, 18, 1, 266–301.  
<https://doi.org/10.1093/jeea/jvy050>
- Parsons, J. E., Adler, T. & Kaczala, C. (1982). Socialization of achievement attitudes and beliefs: Parental influences. *Child Development*, 53, 2, 310-321.  
<https://doi.org/10.2307/1128973>
- Phillimore, J. (2011). Refugees, acculturation strategies, stress and integration. *Journal of Social Policy*, 40, 3, 575-593.  
<https://doi.org/10.1017/S0047279410000929>
- Raijman, R. & Semyonov M. (1997). Gender, ethnicity, and immigration: double disadvantage and triple disadvantage among recent immigrant women in the Israeli labor market. *Gender and Society*, 11, 1, 108-125.  
<https://doi.org/10.1177/089124397011001007>
- Reimers, C.W. (1985). Cultural differences in labor force participation among married women. *The American Economic Review*, 75, 2, 251-255.
- Rubery, J., Smith, M. & Fagan, C. (1999). *Women's employment in Europe: trends and prospects*. London: Routledge.
- Rubin, J., Rendall, M.S., Rabinovich, L., Tsang, F., Janta, B. & van Oranje-Nassau, C. (2008). *Migrant women in the EU labour force*. Santa Monica: RAND Europe.
- Salikutluk Z., Giesecke J. & Kroh M. (2020). The situation of female immigrants on the German labour market: A multi-perspective approach. *SOEPpapers* 1072.
- Sam, D. & Berry J. (1997). Acculturation and adaptation. In: Berry J.W., Poortinga Y.H., Pandey J., Segall M.H. & Kâğıtçıbaşı, C. (Eds.), *Handbook of cross-cultural psychology: Social behavior and applications. Volume 3*. Needham Heights: Allyn & Bacon, 293-319.

- 
- Schmidt-Catran, A. W. & Fairbrother M. (2016). The random effects in multilevel models: getting them wrong and getting them right. *European Sociological Review*, 32,1, 23-38.  
<https://doi.org/10.1093/esr/jcv090>
- Semyonov, M. (1980). The social context of women's labor force participation: a comparative analysis. *American Journal of Sociology*, 86, 3, 534-550.  
<https://doi.org/10.1086/227280>
- Van Tubergen, F., I. Maas & Flap H. (2004). The economic incorporation of immigrants in 18 western societies: origin, destination, and community effects. *American Sociological Review*, 69, 5, 704-727.  
<https://doi.org/10.1177/000312240406900505>
- Vlasblom, J.D. & Schippers, J.J. (2004). Increases in female labour force participation in Europe: Similarities and differences. *European Journal of Population* 20, 4, 375-392.  
<https://doi.org/10.1007/s10680-004-5302-0>

## Appendix

Table A.1: Descriptive female immigrants, model sample

Variable	Obs	Mean	Std. Dev.	Min	Max
<b>Respondent currently employed (Ref.: no)</b>	6,441	0.65	0.48	0	1
<b>Mother currently employed (Ref.: no)</b>	6,441	0.57	0.50	0	1
<b>Female LFPR contexts (Sending – Receiving)</b>					
<i>low - medium</i>	6,441	0.04	0.20	0	1
<i>medium - medium</i>	6,441	0.25	0.44	0	1
<i>high - medium</i>	6,441	0.07	0.26	0	1
<i>low - high</i>	6,441	0.06	0.25	0	1
<i>medium - high</i>	6,441	0.40	0.49	0	1
<i>high - high</i>	6,441	0.16	0.37	0	1
<b>GDP per Capita</b>	6,441	1.28	4.69	0.07	74.61
<b>Unemployment Rate</b>	6,441	7.88	4.16	2.24	24.79
<b>Citizen of Country (Ref.: no)</b>	6,441	0.41	0.49	0	1
<b>Age in years</b>					
<i>18-29</i>	6,441	0.14	0.35	0	1
<i>30-39</i>	6,441	0.32	0.47	0	1
<i>40-49</i>	6,441	0.28	0.45	0	1
<i>50-64</i>	6,441	0.26	0.44	0	1
<b>Subjective Health</b> (0 = very bad; 4 = very good)	6,441	3.00	0.83	0	4
<b>Living Area</b>					
<i>City</i>	6,441	0.44	0.50	0	1
<i>Suburbs. Periphery of City</i>	6,441	0.32	0.47	0	1
<i>Rural Area</i>	6,441	0.24	0.43	0	1
<b>Years since migration</b>					
<i>0</i>	6,441	0.02	0.14	0	1
<i>1 to 5</i>	6,441	0.20	0.40	0	1
<i>6 to 10</i>	6,441	0.22	0.41	0	1
<i>11 to 20</i>	6,441	0.31	0.46	0	1
<i>21 and up</i>	6,441	0.24	0.43	0	1
<b>Education (ES-ISCED)</b>					
<i>ES-ISCED I</i>	6,441	0.22	0.41	0	1
<i>ES-ISCED II</i>	6,441	0.27	0.45	0	1
<i>ES-ISCED III</i>	6,441	0.44	0.50	0	1
<i>ES-ISCED IV &amp; V</i>	6,441	0.07	0.25	0	1
<b>Religious Denom.</b>					
<i>none</i>	6,441	0.29	0.46	0	1
<i>Christian</i>	6,441	0.52	0.50	0	1
<i>Jewish</i>	6,441	0.06	0.23	0	1
<i>Islamic</i>	6,441	0.09	0.29	0	1
<i>Eastern Religion</i>	6,441	0.03	0.16	0	1
<i>Other non-Christian</i>	6,441	0.01	0.09	0	1
<b>Married (Ref.: no)</b>	6,441	0.67	0.47	0	1
<b>Number of children in HH</b>	6,441	1.13	1.16	0	9
<b>Only foreign language in HH (Ref.: no)</b>	6,441	0.36	0.48	0	1
<b>Perceived Discrimination (Ref.: no)</b>	6,441	0.16	0.37	0	1
<b>Sending Year (cont.)</b>	6,441	1995.30	11.01	1960	2017

*Table A.1:* Descriptive female immigrants, model sample (continued)

<b>Variable</b>	<b>Obs</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>Max</b>
<b>Survey Year</b>					
2004	6,441	0.18	0.38	0	1
2006	6,441	0.08	0.28	0	1
2008	6,441	0.12	0.32	0	1
2010	6,441	0.14	0.35	0	1
2012	6,441	0.13	0.34	0	1
2014	6,441	0.12	0.33	0	1
2016	6,441	0.12	0.33	0	1
2018	6,441	0.11	0.31	0	1

Source: ESS round 2-9 (2004-2018)

Table A.2: Descriptive statistics female descendants of immigrants

Variable	Obs	Mean	Std. Dev.	Min	Max
<b>Respondent currently employed (Ref.: no)</b>	6,736	0.73	0.45	0	1
<b>Mother currently employed (Ref.: no)</b>	6,736	0.66	0.47	0	1
<b>GDP per Capita</b>	6,736	1.25	3.83	0.07	74.61
<b>Unemployment Rate</b>	6,736	7.32	2.91	2.24	24.79
<b>Citizen of Country (Ref.: no)</b>	6,736	0.92	0.27	0	1
<b>Age in years</b>					
18-29	6,736	0.2	0.4	0	1
30-39	6,736	0.26	0.44	0	1
40-49	6,736	0.27	0.45	0	1
50-64	6,736	0.27	0.45	0	1
<b>Subjective Health</b> (0 = very bad. 4 = very good)	6,736	2.94	0.86	0	4
<b>Living Area</b>					
City	6,736	0.48	0.5	0	1
Suburbs. Periphery of City	6,736	0.29	0.45	0	1
Rural Area	6,736	0.23	0.42	0	1
<b>Education (ES-ISCED)</b>					
ES-ISCED I	6,736	0.11	0.32	0	1
ES-ISCED II	6,736	0.37	0.48	0	1
ES-ISCED III	6,736	0.45	0.5	0	1
ES-ISCED IV & V	6,736	0.06	0.25	0	1
<b>Religious Denom.</b>					
none	6,736	0.35	0.48	0	1
Christian	6,736	0.38	0.49	0	1
Jewish	6,736	0.20	0.40	0	1
Islamic	6,736	0.06	0.23	0	1
Eastern Religion	6,736	0.01	0.09	0	1
Other non-Christian	6,736	0.00	0.05	0	1
<b>Married (Ref.: no)</b>	6,736	0.57	0.5	0	1
<b>Number of children in HH</b>	6,736	1.15	1.3	0	10
<b>Only foreign language in HH (Ref.: no)</b>	6,736	0.34	0.47	0	1
<b>Perceived Discrimination (Ref.: no)</b>	6,736	0.13	0.34	0	1
<b>Survey Year</b>					
2004	6,736	0.18	0.38	0	1
2006	6,736	0.09	0.29	0	1
2008	6,736	0.13	0.34	0	1
2010	6,736	0.12	0.33	0	1
2012	6,736	0.14	0.35	0	1
2014	6,736	0.13	0.34	0	1
2016	6,736	0.13	0.33	0	1
2018	6,736	0.08	0.27	0	1

Source: ESS round 2-8 (2004-2018); unweighted (incl. Turkey), own calculations.

Table A.3: Descriptive statistics female natives

Variable	Obs	Mean	Std. Dev.	Min	Max
<b>Respondent currently employed (Ref.: no)</b>	100,596	0.7	0.46	0	1
<b>Mother currently employed (Ref.: no)</b>	100,596	0.62	0.49	0	1
<b>GDP per Capita</b>	100,596	2.46	7.44	0.07	74.61
<b>Unemployment Rate</b>	100,596	8.13	3.86	2.24	24.79
<b>Citizen of Country (Ref.: no)</b>	100,596	1	0.04	0	1
<b>Age in years</b>					
18-29	100,596	0.19	0.39	0	1
30-39	100,596	0.25	0.43	0	1
40-49	100,596	0.26	0.44	0	1
50-64	100,596	0.3	0.46	0	1
<b>Subjective Health</b> (0 = very bad. 4 = very good)	100,596	2.93	0.81	0	4
<b>Living Area</b>					
City	100,596	0.32	0.47	0	1
Suburbs. Periphery of City	100,596	0.31	0.46	0	1
Rural Area	100,596	0.37	0.48	0	1
<b>Education (ES-ISCED)</b>					
ES-ISCED I	100,596	0.18	0.39	0	1
ES-ISCED II	100,596	0.36	0.48	0	1
ES-ISCED III	100,596	0.4	0.49	0	1
ES-ISCED IV & V	100,596	0.05	0.23	0	1
<b>Religious Denom.</b>					
none	100,596	0.38	0.49	0	1
Christian	100,596	0.57	0.50	0	1
Jewish	100,596	0.01	0.08	0	1
Islamic	100,596	0.04	0.19	0	1
Eastern Religion	100,596	0.00	0.04	0	1
Other non-Christian	100,596	0.00	0.05	0	1
<b>Married (Ref.: no)</b>	100,596	0.6	0.49	0	1
<b>Number of children in HH</b>	100,596	1	1.1	0	15
<b>Only foreign language in HH (Ref.: no)</b>	100,596	0.14	0.35	0	1
<b>Perceived Discrimination (Ref.: no)</b>	100,596	0.06	0.23	0	1
<b>Survey Year</b>					
2004	100,596	0.22	0.41	0	1
2006	100,596	0.11	0.31	0	1
2008	100,596	0.14	0.35	0	1
2010	100,596	0.12	0.33	0	1
2012	100,596	0.13	0.34	0	1
2014	100,596	0.09	0.29	0	1
2016	100,596	0.1	0.3	0	1
2018	100,596	0.08	0.27	0	1

Source: ESS round 2-8 (2004-2018); unweighted (incl. Turkey), own calculations.



Table A.4: Effects of discrete time trends for models M0 to M4

DV: Respondent employed	M0	M1	M2	M3	M4
Ref.: Respondent not empl.	B	$\beta$	$\beta$	$\beta$	$\beta$
	(SE)	(SE)	(SE)	(SE)	(SE)
Survey Year Dummies (Ref.: 2004)					
2006	0.0536 (0.0376)	0.0500 (0.0373)	0.0539 (0.0390)	0.0531 (0.0389)	0.0449 (0.0356)
2008	0.0657* (0.0309)	0.0635* (0.0299)	0.0628* (0.0313)	0.0654* (0.0305)	0.0437 (0.0288)
2010	0.104** (0.0386)	0.101** (0.0377)	0.101** (0.0380)	0.121*** (0.0337)	0.132*** (0.0330)
2012	0.0540 (0.0426)	0.0490 (0.0422)	0.0462 (0.0440)	0.0641 (0.0401)	0.0724 (0.0372)
2014	0.109*** (0.0302)	0.104*** (0.0291)	0.0985** (0.0330)	0.103** (0.0338)	0.109*** (0.0305)
2016	0.139*** (0.0311)	0.132*** (0.0304)	0.126*** (0.0327)	0.121*** (0.0306)	0.125*** (0.0288)
2018	0.149*** (0.0345)	0.144*** (0.0334)	0.133** (0.0417)	0.114** (0.0405)	0.122*** (0.0359)
N(Receiving C's)	34	34	34	34	34
N(Individuals)	6,441	6,441	6,441	6,441	6,441

Source: ESS round 2-8 (2004-2018), WB & OECD data for country-year information on female LFP rates (1960-2018) for LFP context-combinations, unweighted, own calculations.

Note:  $\beta$  = linear probability point estimate, SE = Robust Standard error (clustered on receiving countries), Significance levels: \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001 (two-sided tests).

Table A.5: Full models M5 and M6 for immigrants, M4 for descendants and natives

DV: Respondent employed	M5	M6	M4	M4	M4	M4
	Immig. (R: all)	Immig. (R: all)	Descend. (R: med.)	Descend. (R: high)	Natives (R: med.)	Natives (R: high)
Ref.: Respondent not empl.	$\beta$ (SE)	$\beta$ (SE)	B (SE)	B (SE)	$\beta$ (SE)	$\beta$ (SE)
Survey Year Dummies (Ref.: 2004)	yes	yes	yes	yes	yes	yes
2006	0.0447 (0.0354)	0.0499 (0.0383)	-0.0766 (0.0446)	0.0121 (0.0416)	-0.000729 (0.0277)	0.0105 (0.0108)
2008	0.0433 (0.0286)	0.0608 <sup>*</sup> (0.0309)	-0.0234 (0.0309)	-0.0434 (0.0454)	0.00458 (0.0378)	0.0110 (0.0179)
2010	0.131 <sup>***</sup> (0.0326)	0.126 <sup>***</sup> (0.0338)	-0.131 <sup>*</sup> (0.0556)	0.104 (0.0548)	0.0441 (0.0278)	0.0450 <sup>**</sup> (0.0169)
2012	0.0723 (0.0375)	0.0723 (0.0414)	-0.0526 (0.0613)	-0.00629 (0.0476)	0.0222 (0.0227)	0.0259 (0.0153)
2014	0.109 <sup>***</sup> (0.0307)	0.116 <sup>***</sup> (0.0349)	-0.0162 (0.0663)	0.0468 (0.0425)	0.0586 <sup>**</sup> (0.0181)	0.0459 <sup>*</sup> (0.0208)
2016	0.126 <sup>***</sup> (0.0290)	0.136 <sup>***</sup> (0.0328)	-0.00147 (0.0787)	0.0361 (0.0377)	0.0898 <sup>***</sup> (0.0271)	0.0697 <sup>***</sup> (0.0186)
2018	0.122 <sup>***</sup> (0.0362)	0.135 <sup>**</sup> (0.0414)	-0.00147 (0.0357)	0.0388 (0.0522)	0.0436 (0.0280)	0.0447 <sup>*</sup> (0.0174)
Sending Country EU 28 (1=yes)	0.0350 <sup>*</sup> (0.0175)	0.0795 <sup>***</sup> (0.0186)				
GDP per capita (in 100.000 US dollar)	0.001 (0.001)	0.001 (0.001)	0.004 <sup>**</sup> (0.002)	0.003 <sup>***</sup> (0.001)	0.003 (0.002)	0.000 (0.000)
Unemployment rate (in percent)	-0.010 <sup>***</sup> (0.002)	-0.009 <sup>***</sup> (0.002)	-0.005 (0.007)	-0.012 <sup>***</sup> (0.003)	0.000 (0.004)	-0.004 <sup>***</sup> (0.001)
Female LFP rate contexts						
Sending – Receiving						
low – medium	-0.0969 <sup>**</sup> (0.0345)	-0.172 <sup>**</sup> (0.0548)				
medium – medium	Ref.	Ref.				
high – medium	-0.0413 (0.0620)	-0.0155 (0.0590)				
low – high	-0.0918 (0.0474)	-0.154 <sup>**</sup> (0.0480)				
medium – high	0.00153 (0.0415)	0.0215 (0.0388)				
high – high	0.0169 (0.0390)	0.0228 (0.0426)				

Table A.5: Full models M5 and M6 for immigrants, M4 for descendants and natives (continued)

<b>DV: Respondent employed</b>	M5 Immig. (R: all)	M6 Immig. (R: all)	M4 Descend. (R: med.)	M4 Descend. (R: high)	M4 Natives (R: med.)	M4 Natives (R: high)
Ref.: Respondent not empl.	$\beta$ (SE)	$\beta$ (SE)	B (SE)	B (SE)	$\beta$ (SE)	$\beta$ (SE)
Mother employed (Ref.: no)	0.0249 (0.0251)	0.0470 (0.0261)	-0.00542 (0.0253)	0.0534** (0.0176)	0.0589*** (0.0111)	0.0423*** (0.00706)
Mother employed (Ref.: no) × Female LFP rate contexts						
Sending – Receiving						
low – medium	0.0267 (0.0449)	0.0795 (0.0522)				
medium – medium						
high – medium	0.00464 (0.0397)	0.0152 (0.0394)				
low – high	0.0881* (0.0427)	0.114* (0.0518)				
medium – high	-0.0177 (0.0308)	-0.0267 (0.0309)				
high – high	0.00545 (0.0341)	0.0132 (0.0368)				
<b>Controls</b>						
Age categories (Ref.: 18-29)						
30-39	0.0259 (0.0296)		0.0907 (0.0655)	0.0621** (0.0225)	0.123*** (0.0202)	0.0561*** (0.0167)
40-49	0.0575 (0.037)		0.103 (0.0676)	0.107*** (0.0194)	0.172*** (0.0185)	0.148*** (0.0146)
50-64	-0.007 (0.0394)		0.0726 (0.0622)	0.0743* (0.0324)	0.0234 (0.0346)	0.0772*** (0.0205)
Subjective Health (0=very bad, 4=very good)	0.030*** (0.008)		0.0235 (0.0284)	0.0534* (0.0215)	0.0371*** (0.00730)	0.0487*** (0.00625)
Citizen of Country	-0.008 (0.0115)		-0.0403 (0.0506)	-0.0118 (0.0653)	0.0546 (0.129)	0.0619 (0.0597)
Living Area (Ref.: City)						
Suburbs, Periphery of City	-0.0121 (0.0141)		-0.00431 (0.0243)	-0.0133 (0.0237)	0.00931 (0.0114)	-0.00545 (0.00670)
Rural Area	-0.0325 (0.0220)		-0.00489 (0.0379)	-0.0369 (0.0221)	-0.0192 (0.0179)	-0.0124* (0.00603)
Years since migration (Ref.:0)						
1 to 5	0.0750 (0.0540)					
6 to 10	0.129* (0.0517)					
11 to 20	0.186*** (0.0516)					
21 and up	0.213*** (0.0551)					

Table A.5: Full models M5 and M6 for immigrants, M4 for descendants and natives (continued)

DV: Respondent employed	M5	M6	M4	M4	M4	M4
	Immig. (R: all)	Immig. (R: all)	Descend. (R: med.)	Descend. (R: high)	Natives (R: med.)	Natives (R: high)
Ref.: Respondent not empl.	$\beta$ (SE)	$\beta$ (SE)	B (SE)	B (SE)	$\beta$ (SE)	$\beta$ (SE)
Education (ES-ISCED)						
ES-ISCED II	0.0745** (0.0242)		0.250*** (0.0194)	0.150*** (0.0313)	0.164*** (0.0214)	0.146*** (0.0191)
ES-ISCED III	0.115*** (0.0204)		0.420*** (0.0259)	0.228*** (0.0384)	0.300*** (0.0217)	0.248*** (0.0180)
ES-ISCED IV, V	0.221*** (0.0607)		0.488*** (0.0272)	0.315*** (0.0458)	0.454*** (0.0281)	0.282*** (0.0185)
Married (Ref.: no)	-0.073*** (0.0194)		-0.0611* (0.0292)	-0.0537 (0.0292)	-0.0867** (0.0301)	-0.0631 (0.0335)
Number of children in HH	-0.056*** (0.0105)		-0.0616** (0.0191)	-0.0369 (0.0271)	-0.0496*** (0.00640)	-0.0530*** (0.00699)
Religious Denom. (Ref.: none)						
Christian	0.0199 (0.0152)		-0.00756 (0.0262)	0.0276 (0.0182)	-0.0219* (0.00921)	-0.00664 (0.00419)
Jewish	0.00626 (0.0241)		-0.0299 (0.0929)	0.0209 (0.0538)	-0.0131 (0.0452)	0.110*** (0.0319)
Islamic	-0.112*** (0.0302)		-0.232*** (0.0522)	-0.0797 (0.0518)	-0.165*** (0.0242)	-0.0996*** (0.0241)
Eastern Religion	-0.0561 (0.0509)		-0.0348 (0.124)	-0.0695 (0.0661)	-0.00509 (0.0653)	-0.0268 (0.0444)
Other non-Christian	-0.0367 (0.0588)		0.0386 (0.149)	0.278*** (0.0446)	-0.110*** (0.0286)	-0.0304 (0.0570)
Only foreign lang. in HH	-0.0257 (0.0187)		0.0172 (0.0344)	0.0408 (0.0213)	0.0735* (0.0350)	0.0157 (0.0123)
Perceived Discrimination (Ref.: no)	-0.0409* (0.0181)		0.0232 (0.0433)	-0.0231 (0.0220)	-0.0479 (0.0333)	-0.0511*** (0.0131)
Intercept	0.337*** (0.0945)	0.510*** (0.0440)	0.430* (0.208)	0.370*** (0.0804)	0.252 (0.141)	0.306*** (0.0542)

Table A.5: Full models M5 and M6 for immigrants, M4 for descendants and natives (continued)

<b>DV: Respondent employed</b>	M5 Immig. (R: all)	M6 Immig. (R: all)	M4 Descend. (R: med.)	M4 Descend. (R: high)	M4 Natives (R: med.)	M4 Natives (R: high)
Ref.: Respondent not empl.	$\beta$ (SE)	$\beta$ (SE)	B (SE)	B (SE)	$\beta$ (SE)	$\beta$ (SE)
<b>Variance Components<sup>a</sup></b>						
Var(Receiving C's)	0.0031	0.0060	0.0113	0.001	0.008	0.007
Var(Mother employed)	0.0020	0.0013	0.0013	0.000	0.001	0.001
Var(Number of children)	0.0031		0.0007	0.004	0.001	0.001
Var(Sending C's)	0.0048	0.0115				
Var(Mother employed)	0.0046	0.0030				
Var(Number of children)	0.0021					
Var(Receiving Years)	0.0018	0.0021	0.0008	0.001	0.001	0.000
Var(Sending Years)	0.0028	0.0042				
Var(Respondents)	0.1804	0.1950	0.1841	0.162	0.194	0.162
Log likelihood	-3879.0	-4122.2	-1415.9	-2161.6	-1452.5	-2130.6
AIC	7866.0	8302.4	2901.8	4393.1	2975.1	4331.1
BIC	8231.6	8498.7	3103.8	4616.2	3279.4	4642.3
<b>N(Receiving C's)</b>	34	34	21	23	23	23
<b>N(Individuals)</b>	6441	6441	2367	4329	44199	53646

Source: ESS round 2-8 (2004-2018), WB & OECD data for country-year information on female LFP rates (1960-2018) for LFP context-combinations, immigrants unweighted, natives and descendants weighted, own calculations.

Note: Models for descendants and natives are based on random effects for receiving years nested within receiving countries,  $\beta$  = linear probability point estimate, SE = Robust Standard error (clustered on receiving countries), Significance levels: \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$  (two-sided tests).

Table A.6: Marginal effects for robustness-check models

<b>DV: Respondent employed</b>	M5 logistic	M5 w/o perc. discrim. as IV	M5 w. job- seeking as DV=1	M5 alternat. RE-Spec v1 <sup>a</sup>	M5 alternat. RE-Spec v2 <sup>b</sup>	M5 alternat. operatio- naliz. <sup>c</sup>
Ref.: Respondent not empl.	ME (SE)	ME (SE)	ME (SE)	ME (SE)	ME (SE)	ME (SE)
<b>Marginal Effects for „mother employed“:</b>						
Female LFP rate contexts						
Sending – Receiving						
low – medium	0.254 (0.365)	0.068* (0.027)	0.100 (0.060)	0.049 (0.032)	0.066 (0.036)	0.045 (0.035)
medium – medium	0.138 (0.138)	0.028 (0.025)	0.035 (0.017)	0.029 (0.026)	0.019 (0.024)	0.027 (0.025)
high – medium	0.141 (0.251)	0.030 (0.043)	0.069 (0.050)	0.030 (0.043)	0.034 (0.043)	0.030 (0.044)
low – high	0.612* (0.294)	0.126*** (0.034)	0.159*** (0.034)	0.115** (0.038)	0.117** (0.037)	0.074 (0.050)
medium – high	0.066 (0.118)	0.013 (0.019)	0.016 (0.018)	0.007 (0.021)	0.004 (0.021)	0.008 (0.022)
high – high	0.219 (0.197)	0.032 (0.025)	0.020 (0.026)	0.032 (0.025)	0.040 (0.026)	0.031 (0.024)
<b>N(Receiving C's)</b>	34	34	34	34	34	34
<b>N(Individuals)</b>	6,441	6,441	6,441	6,441	6,441	6,441

Source: ESS round 2-8 (2004-2018), WB & OECD data for country-year information on female LFP rates (1960-2018) for LFP context-combinations, unweighted, own calculations.

Note: <sup>a)</sup> nesting sending-receiving-years (L2) within sending countries (L3), which are again nested in receiving countries (L4) while letting “mother’s employment” and “number of children in HH” vary within L3 and L4; <sup>b)</sup> nesting sending-country-years (L2) within receiving years (L3), which are nested in receiving countries while letting “mother’s employment” and “number of children in HH” vary on L4; <sup>c)</sup> cut-off point at 40 per cent between the low and the medium contexts;  $\beta$  = linear probability point estimate, ME=Marginal Effects, SE = Robust Standard error (clustered on receiving countries). Significance levels: \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$  (two-sided tests).

Table A.7: Average belonging to sending and receiving contexts based on cases for female immigrants

In percent	Mainly „Low“	Mainly „Medium“ (low;medium;high)	Mainly „High“ (low;medium;high)	Unclear (low;medium;high)
Receiving	-	-	-	-
Country		IL (0;52;48)	LV (0;48;52)	
		FR (0;52;48)	ES (0;42;58)	
		BG (0;60;40)	AT (0;33;67)	
		CZ (0;76;24)	CY (0;27;73)	
		IE (0;85;15)	DE (0;22;78)	
		AL (0;100;0)	SI (0;10;90)	
		BE (0;100;0)	CH (0;0;100)	
		GR (0;100;0)	DK (0;0;100)	
		HR (0;100;0)	EE (0;0;100)	
		HU (0;100;0)	FI (0;0;100)	
		IT (0;100;0)	GB (0;0;100)	
		LU (0;100;0)	IS (0;0;100)	
		PL (0;100;0)	LT (0;0;100)	
		RO (0;100;0)	NL (0;0;100)	
		RS (0;100;0)	NO (0;0;100)	
		SK (0;100;0)	PT (0;0;100)	
		UA (0;100;0)	RU (0;0;100)	
			SE (0;0;100)	

Table A.7: Average belonging to sending and receiving contexts based on cases for female immigrants (continued)

In percent	Mainly „Low“	Mainly „Medium“ (low;medium;high)	Mainly „High“ (low;medium;high)	Unclear (low;medium;high)
Sending	IN (72;28;0)	KE (0;64;36)	UA (0;45;55)	KM (50; 50; 0)
Country	TR (75;25;0)	YE (33;67;0)	NO (0;43;57)	
	SY (94;6;0)	GA (33;67;0)	FI (0;40;60)	
	MR (100;0;0)	SR (33;67;0)	CG (0;40;60)	
	TJ (100;0;0)	NL (8;69;24)	EE (0;33;67)	
	JO (100;0;0)	ES (27;69;4)	CH (0;29;71)	
	SA (100;0;0)	AU (0;69;31)	ET (0;29;71)	
	LY (100;0;0)	PE (0;69;31)	RU (0;27;73)	
	PS (100;0;0)	DE (0;72;28)	GB (0;24;76)	
	BD (100;0;0)	LV (0;73;27)	US (0;20;80)	
	SD (100;0;0)	NZ (0;75;25)	CA (0;19;81)	
	EG (100;0;0)	LT (0;75;25)	CD (0;19;81)	
	LB (100;0;0)	CL (23;77;0)	SE (0;10;90)	
	SO (100;0;0)	NI (20;80;0)	CN (0;2;98)	
	TN (100;0;0)	PT (0;81;19)	BJ (0;0;100)	
	DZ (100;0;0)	IT (18;82;0)	CF (0;0;100)	
	PK (100;0;0)	BY (0;83;17)	IL (0;0;100)	
	IQ (100;0;0)	SK (0;83;17)	KH (0;0;100)	
	IR (100;0;0)	SN (17;83;0)	MW (0;0;100)	
	MA (100;0;0)	UG (0;89;11)	NE (0;0;100)	
		AT (0;91;9)	BI (0;0;100)	
		DO (9;91;0)	KP (0;0;100)	
		RO (0;91;9)	MZ (0;0;100)	
		SI (0;93;7)	TZ (0;0;100)	
		GR (7;93;0)	ZM (0;0;100)	
		CV (7;93;0)	LA (0;0;100)	
		IE (5;95;0)	TG (0;0;100)	
		FR (0;97;3)	NP (0;0;100)	
		CR (0;100;0)	RW (0;0;100)	
		LU (0;100;0)	ER (0;0;100)	
		PR (0;100;0)	IS (0;0;100)	
		TD (0;100;0)	MG (0;0;100)	
		GW (0;100;0)	CM (0;0;100)	
		KR (0;100;0)	ZW (0;0;100)	
		MN (0;100;0)	VN (0;0;100)	
		TT (0;100;0)	GH (0;0;100)	
		GQ (0;100;0)	DK (0;0;100)	
		HK (0;100;0)	AO (0;0;100)	
		HT (0;100;0)	TH (0;0;100)	
		PA (0;100;0)	KZ (0;0;100)	
		ST (0;100;0)		
		GM (0;100;0)		
		GT (0;100;0)		
		LR (0;100;0)		



Table A.7: Average belonging to sending and receiving contexts based on cases for female immigrants (continued)

In percent	Mainly „Low“	Mainly „Medium“ (low;medium;high)	Mainly „High“ (low;medium;high)	Unclear (low;medium;high)
Sending		SG (0;100;0)		
Country		BN (0;100;0)		
		GY (0;100;0)		
		SV (0;100;0)		
		TM (0;100;0)		
		CY (0;100;0)		
		SL (0;100;0)		
		GN (0;100;0)		
		HN (0;100;0)		
		KG (0;100;0)		
		ML (0;100;0)		
		PY (0;100;0)		
		JM (0;100;0)		
		UY (0;100;0)		
		ME (0;100;0)		
		MY (0;100;0)		
		MU (0;100;0)		
		CI (0;100;0)		
		MX (0;100;0)		
		AZ (0;100;0)		
		VE (0;100;0)		
		CU (0;100;0)		
		AF (0;100;0)		
		ID (0;100;0)		
		JP (0;100;0)		
		AM (0;100;0)		
		BO (0;100;0)		
		LK (0;100;0)		
		ZA (0;100;0)		
		AR (0;100;0)		
		MK (0;100;0)		
		MD (0;100;0)		
		CO (0;100;0)		
		HU (0;100;0)		
		GE (0;100;0)		
		RS (0;100;0)		
		BE (0;100;0)		
		EC (0;100;0)		
		CZ (0;100;0)		
		NG (0;100;0)		
		HR (0;100;0)		
		PH (0;100;0)		
		BG (0;100;0)		
		AL (0;100;0)		
		BR (0;100;0)		
		BA (0;100;0)		
		PL (0;100;0)		

Note: The percentages in parenthesis may not sum up to 1 due to rounding.

Table A.8: Linear multilevel probability models for female immigrants' employment (M1, M2 &amp; M3)

DV: Respondent employed	M0	M1	M2	M3	M4
Ref.: Respondent not empl.	$\beta$ (SE)	$\beta$ (SE)	$\beta$ (SE)	$\beta$ (SE)	$\beta$ (SE)
Survey Year Dummies	yes	yes	yes	yes	yes
Sending Country EU 28 (1=yes)				0.0784*** (0.0197)	0.0347* (0.0175)
GDP per capita (in 100.000 US dollar)				0.0009 (0.0005)	0.0005 (0.0010)
Unemployment rate (in per cent)				-0.0099*** (0.0022)	-0.0098*** (0.0018)
Female LFP rate context					
Sending – Receiving					
low – medium			-0.172** (0.0526)	-0.165*** (0.0492)	-0.0908** (0.0281)
medium – medium			Ref.	Ref.	Ref.
high – medium			-0.0209 (0.0509)	-0.0069 (0.0465)	-0.0383 (0.0485)
low – high			-0.141** (0.0450)	-0.137*** (0.0410)	-0.0731 (0.0388)
medium – high			0.0161 (0.0407)	-0.0007 (0.0355)	-0.0091 (0.0348)
high – high			0.0401 (0.0367)	0.0379 (0.0316)	0.0213 (0.0299)
Mother employed (1=yes)		0.0675*** (0.0187)	0.0513** (0.0175)	0.0504** (0.0167)	0.0243 (0.0161)
<b>Controls</b>					
Age categories (ref.: 18-29)					
30-39				-0.0118 (0.0319)	0.0256 (0.0298)
40-49				0.0237 (0.0393)	0.0574 (0.0373)
50-64				0.0145 (0.0404)	-0.0070 (0.0395)
Subjective Health (0=very bad, 4=very good)				0.0368*** (0.00931)	0.0304*** (0.00792)
Citizen of Country				0.000870 (0.0141)	-0.00821 (0.0117)
Living Area (Ref.: City)					
Suburbs, Periphery of City				-0.0296 (0.0154)	-0.0119 (0.0140)
Rural Area				-0.0617** (0.0232)	-0.0329 (0.0221)

Table A.8: Linear multilevel probability models for female immigrants' employment (M1, M2 & M3) (continued)

DV: Respondent employed	M0	M1	M2	M3	M4
Ref.: Respondent not empl.	$\beta$	$\beta$	$\beta$	$\beta$	$\beta$
	(SE)	(SE)	(SE)	(SE)	(SE)
Years since migration (Ref.:0)					
1 to 5				0.0165 (0.0549)	0.0760 (0.0542)
6 to 10				0.0441 (0.0528)	0.130* (0.0516)
11 to 20				0.0974 (0.0499)	0.187*** (0.0516)
21 and up				0.130* (0.0555)	0.216*** (0.0550)
Education (ES-ISCED)					
ES-ISCED II					0.0747** (0.0240)
ES-ISCED III					0.114*** (0.0204)
ES-ISCED IV, V					0.221*** (0.0607)
Married (1=yes)					-0.0725*** (0.0192)
Number of children in HH					-0.0562*** (0.0105)
Religious Denom. (Ref.: no)					
Christian					0.0205 (0.0152)
Jewish					0.00610 (0.0245)
Islamic					-0.112*** (0.0301)
Eastern Religion					-0.0569 (0.0504)
Other non-Christian					-0.0354 (0.0589)
Only foreign lang. in HH					-0.0264 (0.0188)
Perceived Discrimination (1=yes)					-0.0410* (0.0181)
Intercept	0.569*** (0.0350)	0.533*** (0.0369)	0.550*** (0.0385)	0.346*** (0.0891)	0.335*** (0.0942)

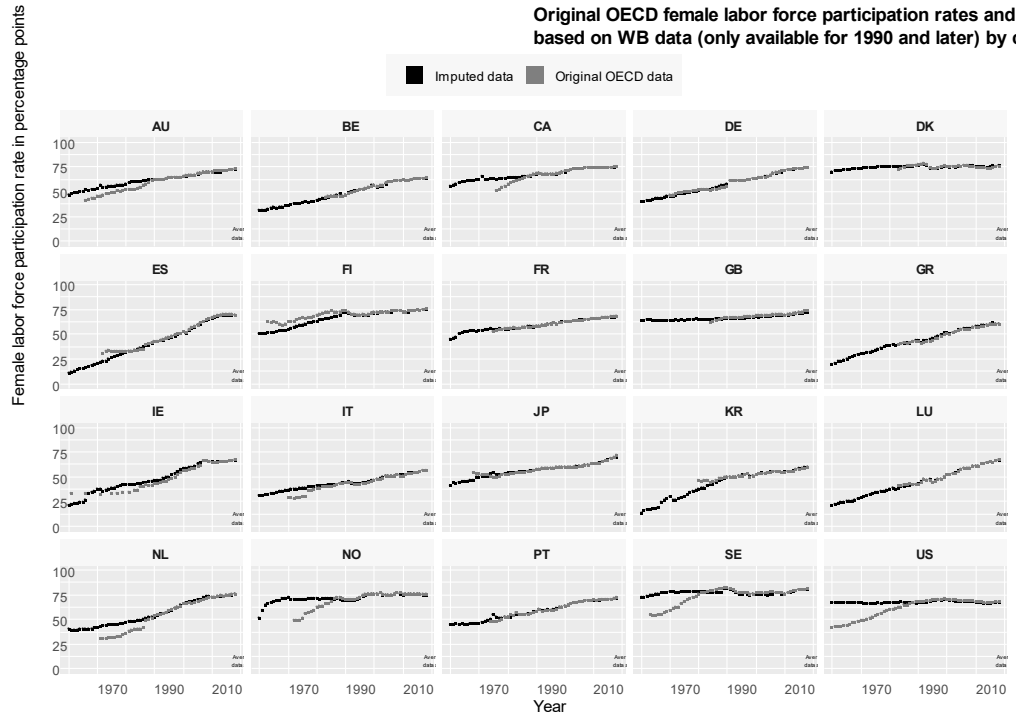
Table A.8: Linear multilevel probability models for female immigrants' employment (M1, M2 & M3) (continued)

<b>DV: Respondent employed</b>	M0	M1	M2	M3	M4
Ref.: Respondent not empl.	$\beta$	$\beta$	$\beta$	$\beta$	$\beta$
	(SE)	(SE)	(SE)	(SE)	(SE)
Var(Receiving C's) (L4)	0.0058	0.0048	0.0040	0.0056	0.0031
Var(Mother employed)		0.0026	0.0019	0.0009	0.0007
Var(Number of children)					0.0020
Var(Sending C's) (L3)	0.0202	0.0186	0.0133	0.0111	0.0049
Var(Mother employed)		0.0018	0.0028	0.0027	0.0047
Var(Number of children)					0.0021
Var(Receiving Years) (L3)	0.0034	0.0033	0.0035	0.0021	0.0018
Var(Sending Years) (L2)	0.0036	0.0037	0.0037	0.0030	0.0027
Var(Respondents)	0.1960	0.1948	0.1953	0.1940	0.1805
Log likelihood	-4178.2	-4163.6	-4140.7	-4080.9	-3880.9
AIC	8382.3	8359.2	8323.5	8231.8	7859.7
BIC	8470.3	8467.5	8465.7	8468.8	8191.5
<b>N(Receiving C's)</b>	34	34	34	34	34
<b>N(Individuals)</b>	6441	6441	6441	6441	6441

Source: ESS round 2-8 (2004-2018), WB & OECD data for country-year information on female LFP rates (1960-2018) for LFP context-combinations, unweighted, own calculations.

Note:  $\beta$  = linear probability point estimate, SE = Robust Standard error (clustered on receiving countries), Significance levels: \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$  (two-sided tests).

Figure A.1: Imputations of OECD data based on WB data to demonstrate the behavior of our imputation procedure (download a high resolution-file of Figure A.1: <https://doi.org/10.20377/jfr-490-595>)



Source: WB & OECD data for country-year information on female LFP rates (1960-2018)

Note: Variables used for the imputation of female LFP rates. Additional information such as basic descriptives and time series plots can be retrieved via <https://data.worldbank.org/indicator/INDICATORNAME> Indicator names: Country code; Year; Female LFP aged 15-64 ILO - SL.TLF.ACTI.FE.ZS (To be imputed; 52% coverage across all country-years from combined OECD and WB data); Yearly global mean of female LFP; Land area (sq. km) - AG.LND.TOTL.K2; Population density (people per sq. km of land area) - EN.POP.DNST; Population growth (annual %) - SP.POP.GROW; Population total - SP.POP.TOTL; Rural population total - SP.RUR.TOTL; Rural population growth (annual %) - SP.RUR.TOTL.ZG; Rural population (% of total population) - SP.RUR.TOTL.ZS; Urban population growth (annual %) - SP.URB.GROW.

---

## Information in German

### Deutscher Titel

Migration und intergenerationale Stabilität der Erwerbsbeteiligung von Frauen: Der Einfluss von Unterschieden zwischen Herkunfts- und Aufnahmeländern

### Zusammenfassung

**Fragestellung:** Unser Beitrag befasst sich mit der intergenerationalen Stabilität von Frauenerwerbsbeteiligung innerhalb von Familien mit Einwanderungsgeschichte. Wir untersuchen inwieweit sich Unterschiede zwischen Herkunfts- und Aufnahmeländern auf die Transmission der Erwerbsbeteiligung von Müttern zu Töchtern auswirken.

**Hintergrund:** Als Grund für die oftmals geringe Erwerbsbeteiligung von Migrantinnen werden häufig aus den Herkunftsländern stammende tradierte Geschlechterrollen angeführt. Ein anderer Erklärungsansatz benennt Barrieren sozialer Mobilität in den Aufnahmeländern als wesentliche Hürde. Forschung die sich mit der intergenerationalen Stabilität der Erwerbsbeteiligung migrantischer Mütter und Töchter beschäftigt, betrachtet meist nur ein einziges Herkunfts- oder Aufnahmeland. Die länderübergreifende Perspektive hingegen hat erst in der jüngeren Forschung an Aufmerksamkeit gewonnen (e.g., OECD 2017). Wir tragen zur bestehenden Forschung empirische Analysen bei, die zeigen, wie kontextuelle Unterschiede Aufnahme- und Herkunftsländern die Erwerbsbeteiligung von Migrantinnen systematisch beeinflussen.

**Methode:** Wir nutzen Daten des European Social Survey (ESS) aus 35 Ländern über eine Zeitspanne von 14 Jahren (2004 – 2018). Diese werden ergänzt durch kontextuelle Daten zu 172 Herkunftsländern für die Zeit von 1960 bis 2018. Zuerst wird ein Überblick über Erwerbsquoten von Migrantinnen und intergenerationaler Stabilität von Erwerbstätigkeit innerhalb dieser Gruppe gegeben. In einem zweiten Schritt werden die deskriptiven Befunde durch Mehrebenenmodelle, die demografische und sozio-kulturelle Merkmale kontrollieren sowie die geschachtelte Datenstruktur berücksichtigen, geprüft.

**Ergebnisse:** Unser Beitrag zeigt, dass Unterschiede in der intergenerationalen Stabilität im Zusammenhang mit dem Unterschied der allgemeinen Erwerbsbeteiligung von Frauen zwischen Herkunfts- und Aufnahmeländern stehen. Während eine Migration aus Ländern mit niedriger Erwerbsbeteiligung von Frauen in ein Land mit hoher Erwerbsbeteiligung für Migrantinnen mit einer höheren Wahrscheinlichkeit zu arbeiten einhergeht, finden wir genau in dieser Gruppe auch eine starke intergenerationale Stabilität in der Erwerbsbeteiligung.

**Schlussfolgerung:** Das Ausmaß intergenerationaler Stabilität in der Erwerbsbeteiligung migrantischer Mütter und Töchter scheint durch die kontextuelle Unterschiede zwischen Herkunfts- und Aufnahmeländern beeinflusst zu sein. Insbesondere in Fällen, in denen Familien von einem Land mit niedriger in eines mit hoher Frauenerwerbsbeteiligung migrieren, ist die intergenerationale Stabilität zwischen Müttern und Töchtern hoch. Dieses Ergebnis entspricht der Diaspora These, nach der intrafamiliäre Stabilität besonders hoch ist, wenn Familien von besonders deutlichen kontextuellen Veränderungen betroffen sind.

**Schlagwörter:** Arbeitsmarkt, Integration, Assimilation, Geschlecht, Mehrebenenanalyse

JFR – Journal of Family Research, 2021, vol. 33, no. 2, pp. 351–404.

doi: 10.20377/jfr-490

Submitted: July 15, 2020

Accepted: February 4, 2021

Published online: March 08, 2021

Dorian Tsolak: <https://orcid.org/0000-0001-6695-6169>

Marvin Bürmann: <https://orcid.org/0000-0002-4813-5890>

Martin Kroh: <https://orcid.org/0000-0002-4889-8425>



This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).