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Migrant women labor-force participation in Germany

Human capital, segmented labor market, and
gender perspectives

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Veronika J. Knize Estrada (IAB, Friedrich-Alexander Universität Erlangen-Nürnberg)

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Abstract

This paper analyzes individual, structural, and cultural factors that influence the labor-force participation of migrant women in Germany. Considering the well-established evidence that immigrant women work less than natives, with statuses and earnings differing significantly between them, I investigate the economic activity of the former by examining the cross-sectional data from the IAB-SOEP Migration Sample 2013 with multiple linear regression techniques. This evaluation is supported by three approaches which offer explanations for their employment behavior: human capital theory, segmented labor market theory, and the less examined in German research cultural hypothesis. Migrant women's employment status is, in principle, one's decision as member of a household; nevertheless, it is embedded in cross-national cultural processes and also constrained by structures; e.g., by employers and institutions. The analysis shows that classic human capital elements appear to be less reliable predictors of women's labor supply: higher education attained abroad is only marginally related to women participating in the workforce. The Middle-Eastern and North African origin, the Muslim religion, and higher levels of religiosity are negatively associated to women's labor participation reflecting a traditional gendered work division. This effect is minimized when controlling for German education, however. I argue that the lower labor-force participation among migrant women is partially explained by the fact that immigrants are on average less educated and more traditional than natives, having skills that are only restrictively transferable into the German labor market.

Zusammenfassung

Dieser Beitrag analysiert individuelle, strukturelle und kulturelle Faktoren, welche die Erwerbsbeteiligung von Migrantinnen in Deutschland beeinflussen. Migrantinnen weisen eine geringere Erwerbsbeteiligung als Einheimische auf und auch ihr Beschäftigungsstatus und ihre Verdienste unterscheiden sich stark. Deshalb untersuche ich die Erwerbsbeteiligung der Migrantinnen durch die Auswertung der Querschnittsdaten der IAB-SOEP Migrationsstichprobe 2013 mit einem multiplen linearen Regressionsansatz. Die Analyse stützt sich auf drei Ansätze, die Erklärungen für das Beschäftigungsverhalten von Migrantinnen bieten: die Humankapitaltheorie, die segmentierte Arbeitsmarkttheorie und die in der deutschen Forschung weniger untersuchte kulturelle Hypothese. Der Beschäftigungsstatus von Migrantinnen ist im Prinzip als die Entscheidung eines Haushaltsmitgliedes zu sehen, aber sie ist eingebettet in länderübergreifende kulturelle Prozesse und wird auch durch betriebliche bzw. institutionelle Strukturen eingeschränkt. Die Ergebnisse deuten darauf hin, dass klassische Elemente des Humankapitals weniger verlässliche Prädiktoren für das Arbeitskräfteangebot von Frauen sind: So wirkt sich eine im Ausland erworbene Hochschulbildung kaum auf die berufliche Teilhabe aus. Eine nahöstliche oder nordafrikanische Herkunft, die muslimische Religion sowie höhere Religiosität korrelieren mit der Erwerbsbeteiligung von Frauen negativ. Dies spiegelt eine traditionelle geschlechtsspezifische Arbeitsteilung wider, wobei eine Ausbildung in Deutschland diesen Effekt

erheblich abschwächt. Die geringere Erwerbsbeteiligung von Migrantinnen dürfte damit teilweise dadurch erklärt werden, dass Zuwanderer im Durchschnitt weniger gebildet und traditioneller eingestellt sind als Einheimische. Zudem sind ihre Fähigkeiten nur beschränkt auf den deutschen Arbeitsmarkt übertragbar.

JEL-Klassifikation: O15, J15, J70, Z12

Keywords: female labor-force participation, migrant women, human capital theory, segmented labor market theory, gender attitudes, religion, cultural factors

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1 Introduction¹

This project focuses on investigating the labor-force integration of immigrant women in Germany. Using the cross-sectional data from the IAB-SOEP (Institute for Employment Research and German Socio-Economic Panel) Migration Sample 2013, I examine two aspects of labor-force participation: firstly, and more importantly, the decision on the participation and, secondly, the working hours. Within multiple regression techniques, I estimate the probabilities to work and the hours worked conditioned on a set of variables related to individual characteristics, structural features and constraints, and cultural background.

There are various reasons why the topic of this paper deserves attention. Germany and other European nations are currently described as emerging immigration countries (Chiswick 2016; van Tubergen et al. 2004: 704). Foreigners in all immigrant nations experience differential treatment in the labor market to some extent: indeed they reveal on average lower occupational statuses and incomes than native workers (OECD 2008). As suggested by various authors in international and national research (Borjas 1987; Constant/Massey 2005; Kalter/Granato 2007), immigrants' skills tend to be reduced in comparison to the native population, which could explain the gap between natives and foreigners. I.e., they are somewhat negatively selected, implying that their labor participation is averagely worse than that of natives, in all senses. However, this fact only partially explains the "existence and persistence of ethnic inequality in Germany" (Kalter/Granato 2007: 272).

Countries of destination vary in their degree of meritocracy or openness to immigrants as well as prejudice and discrimination against minorities (Heath and Cheung 2007). In comparison with the USA, Canada, and Australia, Europe's lack of experience in integrating immigrants "into its linguistic, social, and economic life" (Chiswick 2016: 10) is evident. Many migrants struggle due to difficulties such as poor knowledge of skills required in the destination-country, language barriers, unemployment, and less transferability of qualifications (ibid.). Germany, in particular, presents a more difficult environment to minorities in part due to weak anti-discrimination laws, higher social rigidity, and a more regulated labor market (Heath/Cheung 2007). E.g., refugee immigration is currently accompanied by media and politic debate as well as protests from some politic groups against it such as prominent (PE)GIDA, which holds an ethno-centric posture, but also by pro-demonstrations (Czymara/Schmidt-Catran 2016).² Moreover, the German labor market is characterized by a strong insider-outsider di-

¹ This project was developed within the scope of my master thesis for the attainment of the degree Master of Arts in Sociology at the Friedrich-Alexander Universität Erlangen-Nürnberg.

² In the news, far-right party AfD is described as the big winner in 2017 elections, where it received 13% of the votes in part reflecting population's opposition to Angela Merkel's controversial *Willkommenspolitik* towards asylum seekers (Mudde 2017; Die Zeit 2017).

vision and severe segmentation along professional lines dependent on the educational training system (Constant and Massey 2005: 490; Kalter/Granato 2007: 278; Kogan 2010: 96).

Furthermore, migrant women's labor participation in Germany is lower than that of native women (Fuchs et al. 2016). In 2013, the employment rate of the former was 68.7 percent, whereas that of the latter represented 79.9 percent (Höhne 2016: 30), with migrant women aged 30 to 45 years old holding the largest unemployment proportions. Unfortunately, labor market withdrawal and part-time work for long periods are linked to women's higher poverty risk (EESC 2006). For example, in 2015, the share of women suffering from poverty or social exclusion was 1.4 percentage points higher than the share of men in the EU. The largest differences are found among persons older than 64 years old: women's poverty risk was 5 percent higher than that of men (Eurostat 2017). The European Commission explains that the poverty gender gap is a long-term effect of the lower salaries and shorter working lives of women related to caring duties, with female retirees' pensions being 40 percent lower than men's. Besides, women live longer than men, then becoming more usually widows in more precarious single-person homes (EC 2015). Similarly, women facing multiple discrimination (for example, migrants or women belonging to minorities) confront even higher poverty risks (EESC 2006: 97). Not only reducing poverty generally but also the poverty gap between men and women is part of the Europe 2020 strategy (Eurostat 2017).

In an attempt to address these issues, I study the labor-force participation of migrant women in Germany from the above-mentioned angles. Individual and structural factors are examined within a labor market theory framework. Labor market theories study the processes and conditions in the labor market to explain a variety of research questions, such as labor success (Granato 2003: 37), market mechanisms, preferences, inequalities, institutions, mobility, organizations, and social networks amongst others (Abraham/Hinz 2008). They analyze the collective and individual sides of work, being complementary rather than exclusionary (ibid: 60). The two labor market theories I considered for this project are briefly introduced in the following lines.

Delineated from the neoclassical theory since the late 1950s principally by Gary Becker (1975, first published in 1964) and Jacob Mincer (1974), human capital theory has been a beneficial tool to analyze labor market distributions. This theory indicates that individual skills and characteristics are relevant to productivity and, thus, could explain phenomena such as unequal distributions of wages among countries and regions. Further developments of the theory by scholars such as Chiswick and Miller (1992), as well as Mincer and Polachek (1974) among others, define specifications of human capital in immigrants and women's case. In such cases, human capital follows a different logic.

At the end of the 1960s, another perspective to understand the distribution in the labor market was defined mainly by Michael Piore (1979). Against the neoclassical approach, which argues that competitive labor markets regulate themselves, it follows the Marxist tradition: split, segmented, or dual labor market theory (Kalleberg/Sørensen 1979: 356). It was first developed from the postulation that monopoly is a typical characteristic of advanced capitalism and constitutes so-called “center economy firms”, which control the labor market inhibiting the existence of peripheral economies (Averitt 1968, as cited in Wilson/Portes 1980). Dual labor market theory argues that the labor market is divided into primary and secondary labor submarkets with little mobility between them, with certain groups such as immigrants and women being systematically “trapped” in the secondary sector. Societal barriers may hinder them from integrating into the labor market (Constant/Massey 2005, Granato 2003).

Human capital and segmented labor market theory have been applied as theoretical frameworks by many migration scholars, being also continually developed and used in German labor market studies over time (Granato 2003). While human capital theory constitutes the core focus on labor market research, dual labor market studies and the implicated segmented assimilation processes are central to research on immigration, race, and ethnicity, as well as on labor market inequalities (Restifo et al. 2013).

This project’s third theoretical angle consists of a cultural perspective. As far as culture is concerned, there are perhaps no social scientists that would deny the influence of culture on labor participation. A consensus is evident among scholars on the role of culture in individual behavior (Polavieja 2015: 166). Many studies conclude that cultural background has a major role in the labor-force participation of migrant women. Researchers state that much of their economic activity can be predicted by the labor participation in their countries of origin, given that it is socially embedded. Prescribed gender roles and stereotypes appear to transcend national borders (van Tubergen et al. 2004; Fernández/Fogli 2009; Polavieja 2015; Frank/Hou 2015).

To the extent that this research should attempt, beyond describing loose influences, to arrange them around the female labor participation, this has to be placed in some explanation model which contributes analyzing its interconnected causal aspects. After considering very well-known sophisticated social theories like Jürgen Habermas’ communicative action or Pierre Bourdieu’s fields and capitals, Anthony Giddens’ (1984, 1989, 2006) theory of structuration was selected as background theory for this research due to its capability to explain society’s reproduction and change through interactive and reciprocal influences of social action and structure. Structuration theory implies that the domain of social sciences’ research “is neither the experience of the individual actor nor the existence of any form of societal totality, but social practices ordered across space and time” (Giddens 1984: 2). As a matter of conceptual orientation, structuration theory acts as the reference with which the indicated clarifying possibilities of the *practice* of participating in the workforce will be embedded.

Chapter 2 offers an overview of the German context regarding migration and labor participation. First, a historical review of migration since the postwar is introduced. Second, I report briefly the labor-force participation of women in 2013, the year to which this paper's data corresponds to. In point 3, I present a set of empirical research mostly conducted in the USA and Germany. Initially, studies on the labor market performance of immigrants are sketched out, followed by those on women's work roles. Lastly, I expose results of studies having focused on migrant women's labor-force participation. Theories, as well as other concepts, are extensively outlined in chapter 4, which is followed by this paper's hypotheses specified in chapter 5. The empirical part of this project begins in chapter 6. There, I first present the dataset to be employed; i.e., the IAB-SOEP Migration Sample 2013. Secondly, the dependent and independent variables to be evaluated are outlined. Thirdly, I sketch out the methods of analysis and interpretation. As said above, the multiple linear regression constitutes the estimation technique, by which the labor participation and the working hours are studied. Chapter 7 contains several descriptive statistics which support the analysis of the multiple regressions of chapter 8. There, linear probability and other regression models allow for estimating the effect of various explanatory variables on the labor participation of migrant women. These results are exhaustively interpreted concerning the hypotheses shown in the fifth chapter. Lastly, this paper finishes with a summary of findings and discussion related to the problems indicated at the beginning of this chapter.

2 Context in Germany

With the purpose of gaining a more in-depth understanding of the German context, this chapter begins by offering a review of postwar migration into Germany. Subsequently, the labor-force participation of migrant women in 2013, the year the data used in this paper corresponds to, is sketched out.

2.1 Migration into Germany

2.1.1 Postwar immigration until 1989

In the first three decades after World War II, so-called "guest workers" from Italy, Spain, Greece, Turkey, Morocco, Portugal and the former Yugoslavia were recruited to allow Germany's economic recovery and growth, contributing to make the "economic miracle" possible (Kogan 2010). The migratory waves received by Germany since 1955 brought under-qualified immigrants in large numbers. E.g., in 1973, approx. 4 million guest workers, mostly low-skilled and originating from Turkey and the former Yugoslavia, were employed in Germany. It was not until the OPEC oil embargo of 1973 and its adverse economic consequences that the government curbed guest workers' recruitment. However, immigration remained high due to the spouses and children moving to Germany to reunify the family, although migration was first thought by host countries as temporary (Piore 1979: 1). Thus close relatives of guest workers accounted for 50-70 percent of the immigrants between 1975 and 1981 (Kalter/Granato 2007: 276). By 1975 immigrant workers were 9 percent of the labor force in West Germany (Piore 1979: 1). Return policies failed, even though the government offered

financial resources to promote guest workers to return to their countries of origin, which resulted on average in long residence durations (see Kogan 2010: 93). Moreover, since the late 1980s ethnic German – *Aussiedler* – immigration increased considerably (ibid: 94).

In 1953 another type of mobility into Germany began as well: immigration on humanitarian grounds, stimulated by political conflicts. The BAMF³ – (2017: 8) reports that of the 5.3 million asylum applications made between 1953 and 2016, 0.9 million of them were submitted up to 1989. The number of applications for asylum remained relatively low until the late 1970s, after which time it strongly increased, amounting to 51,493 and 121,315 applications in 1979 and 1989, respectively (ibid: 9). Most refugees until the 2000s arrived from territories under the control of the Soviet Union, Yugoslavia, Kurdish Turkey and Iraq (Kogan 2004, as cited in Kogan 2010: 93).

2.1.2 Immigration since 1990

Since the 1990s the structural conditions for migration in Germany have been changing not only due to the effects of globalization, but also the economic crisis in Europe, the expansion of the European Union to Eastern Europe and the modifications in the immigration legislation (Brücker et al. 2014: 3). Additionally, the fall of the Iron Curtain in 1989 gave rise to the new reunified Germany, triggering late repatriates immigration; while the Yugoslav Wars also affected the migratory fluctuations in Germany at the beginning of the 1990s (Fuchs et al. 2016). Regarding refugees, the highest number of asylum applications of the twentieth century was reached in 1992: 438,191 (BAMF 2017: 9); however, only small proportions of applicants were granted asylum (4.25%). High *Aussiedler* and refugees' immigration was slowed since the immigration legislation measurements of 1993, which aimed to curb it. In consequence, *Aussiedler* repatriation reduced steadily and the number of their family members arriving in Germany increased (Kogan 2010: 94); while refugee immigration decreased until 2008 to 28,018 asylum applications (BAMF 2017: 9).

In general, Turks have been the largest minority in Germany since their arrival as guest workers. Southern European countries like Spain, Portugal, Greece, and Italy have again become essential sources of immigration, triggered by the economic and financial crisis. Immigrants from these countries have once again been considered by some scholars as guest workers because there is a tendency for them to move abroad only temporarily and to migrate several times (Brücker et al. 2014: 3). Besides, foreigners from Central and Eastern Europe are sometimes considered to be seasonal workers in the agricultural, forestry and healthcare sectors, making up a sizeable part of the migratory flows of the last years. As mentioned earlier, the EU expansions in 2004 as well as 2007 and the consequent freedom of movement for workers within the EU territory together with the fact that many countries have been experiencing

³ BAMF, orig.: Bundesamt für Migration und Flüchtlinge; translated: Federal Office for Migration and Refugees.

financial crises, caused increased migration mainly from European countries. In 2014 60 percent of all immigrants were still EU nationals (Fuchs et al. 2016). Other relevant groups of immigrants are the highly skilled professionals working as medical experts, managers, executives, scientists, foreign language teachers, chefs, chaplains, artists, models, professional athletes and trainers, whose countries of origin are not only European (relevant sources are, e.g., China and India). Working permits or Green Cards have been granted to these kinds of specialists to cover the labor demand in such sectors (see Kogan 2010: 94).

Net immigration between 1990 and 2010 was approx. 90,000 individuals per year. Since 2010 this rate has been increasing consistently and rapidly. Thus, in 2013, net immigration reached the number of 438,000 (Brücker et al. 2014). In 2013, 127,023 applications for asylum were counted by the BAMF (2017). Most refugees arrived from countries in the Middle-East and Africa (mainly Afghanistan, Eritrea, Iraq, Iran, Pakistan, Somalia, and Syria) and from Macedonia, Serbia, and Russia (see BAMF 2017: 17). The main triggers to migrate were on the one hand civil wars, discrimination and chaotic situations; on the other hand, the pursuit of better opportunities (Chiswick 2016: 2). In 2015, net immigration from non-EU countries reached 883,734 persons (Fuchs et al. 2016). Germany was in 2015 the second most common destination country of refugees after Serbia and Kosovo together: 441,899 applications for asylum were processed, while some forms were postponed until 2016, year in which 745,545 requests for asylum were counted (BAMF 2017: 8). For 2016, year in which Germany was the leading refugee receiving country (OECD 2017b), the UNHCR (2017) reports that 421,974 female and 846,871 male refugees were staying in the German territory.

In sum, in these last years, Germany has become a mass migration destination country from Eastern and Southern Europe as well as from countries at war. Fuchs et al. explain regarding the very high immigration from Arab and African regions that “Germany is currently facing a shift in the migration regime. With the exception of the years after the fall of the Iron Curtain, immigration was strongly labour market oriented and, later, family-oriented. In these days immigration is dominated by humanitarian plight and political persecution.” (2016: 19).

2.2 Labor-force participation of migrant women in 2013

Not solely the number of immigrants has increased significantly in the last years, the number of employed persons has risen considerably as well. While in 2005 39.220 million persons were gainfully employed, by 2013 this number had increased by 3.051 million more individuals (StBA ⁴ 2017). Augmentation in the female employment rate is especially remarkable: labor-force participation of women between 20 and 64 years old has risen from 2005 to 2013 by roughly 10 percent. However, men on average still work more than women: the employment rate of working-age men was 82 percent,

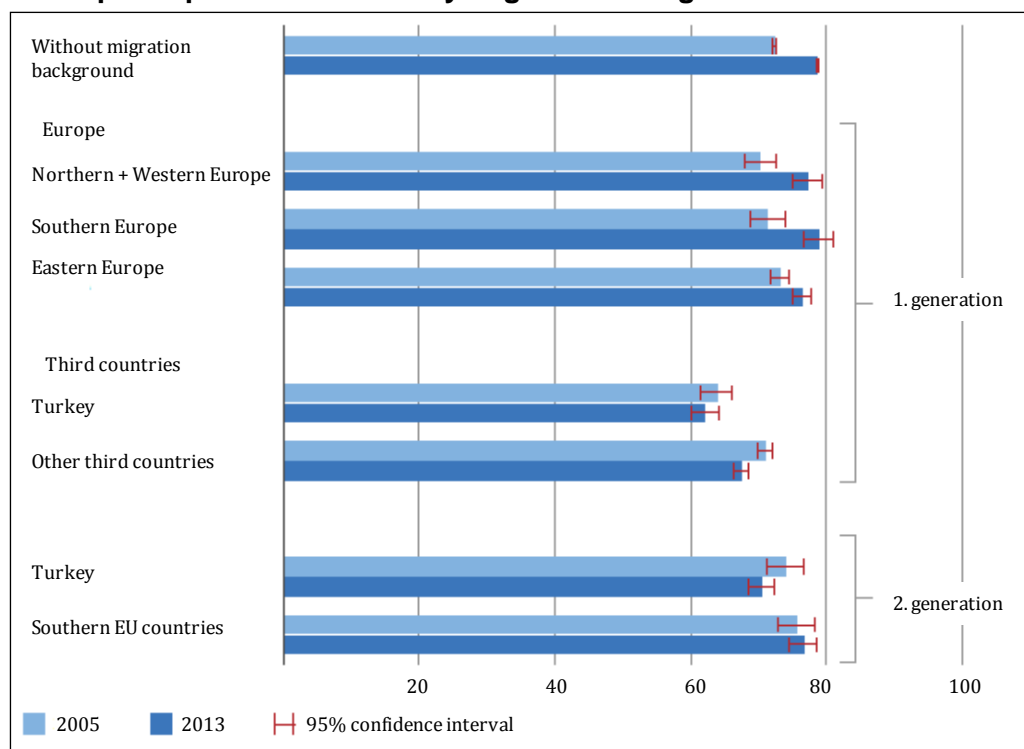
⁴ StBA orig.: Bundesamt für Statistik, translated: Federal Statistical Office.

while that of women represented 73 percent. Furthermore, whereas 73 percent of mothers – 66 percent of them in part-time – and 85 percent of non-mothers between 25 and 49 years old worked, 93 percent of fathers and 85 percent of non-fathers were employed. Compared to the European Union, Germany held higher labor-force participation, but differences between men and women remained similar. On average 68 percent of mothers and 77 percent of non-mothers in the EU work, while 87 percent of fathers and 78 percent of non-fathers are employed. This suggests, thus, that there are not many differences between childless women and men regarding labor participation in the EU and Germany as well. Nevertheless, the financial crises mainly in Spain, Italy, Greece, and Croatia may be in part responsible for the lower labor-force participation rates in Europe (StBA 2016; Destatis 2014a and 2014b).

Foreigners, particularly those from outside the European Union, are overrepresented among the unemployed and confronted with more difficulties getting hired (StBA 2016). While the labor-force participation quota of immigrants was 78.8 percent in 2013, this quota was 85 percent in case of Germans (Höhne 2016). Moreover, overall German women had considerably higher rates of labor force participation than migrant women, with the most considerable differences being among the females aged 30 to 45 years old (Fuchs et al. 2016: 6). Whereas the average labor-force participation of working-age German women was 79.9 percent in 2013, that of migrant women represented 68.7 percent (Höhne 2016: 30).

In 2013, however, all immigrants except those from countries outside the EU were more integrated into the labor market than in 2005 (see Höhne's graphic 1)⁵. Representing 22 percent of the working-age population, 10.2 million first-generation immigrants and 6 million second-generation immigrants lived in Germany. New immigrants were better qualified than those who arrived before 2008; in 2013 31 percent of foreigners had at least a bachelor's degree. Furthermore, while women from Eastern European countries participated in the labor market slightly less than natives and the economic activity of women from third countries was far lower than that of native women, there were not any significant differences in the labor-force participation between native women and those from Southern, Western and Northern Europe (ibid: 31).

⁵ Countries included in Eastern Europe: Poland, Czech Republic, Hungary, Slovakia, Slovenia, Estonia, Latvia, Lithuania, Romania, Bulgaria and the Ex-Yugoslavia (Bosnia-Herzegovina, Croatia, Macedonia, Montenegro, and Serbia). In Southern Europe: Portugal, Spain, Italy and Greece. In Western and Northern Europe: Belgium, Denmark, Finland, France, Ireland, Island, Liechtenstein, Luxembourg, Netherlands, Norway, Austria, Sweden, Switzerland and United Kingdom. Third countries contain Turkey. First generation migrants were defined as foreigners born abroad without German citizenship. Second generation migrants included individuals born in Germany having at least one first generation parent.

Graphic 1**Labor participation of women by migration background. Likelihood in %**

Source: Höhne (2016: 30), Graphic 1. Calculations for 40-year-old women, based on the Microcensus 2005 and 2013. Author's translation into English.

3 Immigrants, women, and the labor market

This chapter presents the results of the most relevant studies in migrant women labor participation so far. Firstly, it is worth mentioning that social sciences research was centered in men until the 1970s⁶. Since then, feminism has been daring sociological perspectives by trying to transform both theory and methodology to overcome male bias. A gendered approach to research emerged in many disciplines following and refeeding the steps of feminism. In the second decade of the twenty-first century, analytical category gender is irrefutably established for studying and understanding the society; i.e., both men and women are analyzed as agents (Sharpe 2001; Brettell 2016). That being said, empirical results of research in immigrants' labor-force participation as well as of women's work roles will be outlined, followed by studies in foreign female integration in the labor market. To provide a more understandable bibliographical revision, the next subchapters will be divided into international and national research, and the references given will be (when possible) arranged according to the year of publication.

⁶ Harzig (2001) points out female scholars' general consideration of women been constantly overlooked in the (male mainstream) migration research. Brettell (2016) explains that before the 1970's, women were portrayed in the migration research through their invisibility and lack of agency to migrate. For the first time, in 1984, the International Migration Review published the first special issue "Women and Migration" focusing on gender in migration processes. Over time, females have been gaining the attention of migration investigation and contemporaneously are no longer ignored.

3.1 Immigrants' labor participation

International and German research of immigrants' labor participation is characterized by controlling statistically for human capital attributes. Most of the reviewed studies focus on the comparison between immigrants and natives regarding their respective human capital performances in the labor market, evaluated by economic activity, earnings, occupational attainment, or prestige. Furthermore, to analyze differences between them, cultural perspectives, discrimination as well as segmentation theories are core frameworks.

International research

While traditional immigration countries such as Australia, Canada, and the USA have long been receiving large-scale migration, some Western European nations are recently arising as immigrants' destinations. Since the second half of the twenty century, they have turned from being "sending" lands to be "receiving" lands (Kalter/Granato 2007: 273). In these new immigrant countries, economic disadvantages experienced by foreigners have been recurrently confirmed, with ethnic stratification becoming foci of economic and sociological research as well as of policies against inequality (van Tubergen et al. 2004; Heath/Cheung 2007).⁷

Borjas (1992) is one of the pioneers in studying the role of ethnic environment upon deployment of human capital. He defines 'ethnic capital' as the particular skills carried by immigrant groups existing and persisting over time, playing a major role in intergenerational mobility. Ethnic capital effects decrease across generations but are still present in even third generation migrants. In the operational process of his research, ethnic capital was measured according to average skills of parents' ethnical group (considered nationality of origin) defined as an externality in human capital development of individuals. This study evidences that "the intergenerational progress of workers belonging to ethnic groups that have relatively low levels of human capital is retarded by the low average quality of the group" (ibid: 124). Children's human capital develops firstly according to parents' investments and, secondly, relying on the average human capital stock of the ethnic environment in which they grow up. Being raised in a higher human capital environment means simultaneously to be socialized within a frame in which social, cultural, and economic aspects tend to promote individual's productivity. Borjas' (1992) leading insight concludes that the ethnic environment affects exogenously the accumulation of human capital and, thus, the labor market performance of an individual.

Classic human capital research confirms that schooling, on-the-job training, health, and knowledge of the labor market affect the earnings as well as the occupation of

⁷ This also represents the status quo of traditional destination countries. However, there have been some other periods. In earlier research, a better labor-force performance of immigrants was observed in Canada and Australia by Borjas (1988 as cited in van Tubergen/ Maas/Flap 2004: 719) and Reitz (1998, as cited in ibid.).

individuals. Meanwhile, empirical studies deduce that human capital effects are differentiated in case of immigrants (e.g., Mincer 1974; Chiswick 1978, 1999; Chiswick/Miller 1992). These authors develop further human capital assumptions concluding that path of migration, language proficiency, time in destination country, and similarities between origin and destination play significant roles in the economic position and labor market performance of immigrants. In short, individuals who migrated long time ago due to economic motivations from a similar country with destination's language knowledge possess better chances than other immigrants, first, to transform their human capital and, second, to attain a better positions in the labor market.

Mainly, immigrants' country of origin has been repeatedly evaluated in empirical studies as crucial. Friedberg (2000) corroborates the primary role of immigrants' provenance in the host country. As a result of her study in Israel, she argues that immigrants cannot take with themselves the whole human capital acquired home into the destination, this being the main explanation for earnings' differentials between natives and foreigners in that nation. However, confirming Chiswick's (1978, 1999) theory and research, some immigrants are less disadvantaged than others: human capital returns are diverse; human capital stock either from similar or from developed countries is regularly better recognized as well as translated than others. Friedberg finds, moreover, that additional education gained domestically not only raises human capital but also facilitates the transference of human capital obtained pre-migration.

In this address, van Tubergen, Maas, and Flap's (2004) cross-national study postulates the interlinked influence of three factors upon the economic status of immigrants: country of provenance, country of destination and the peculiar relation between them. Multiple origins in multiple Western destinations are simultaneously compared, thus becoming possible to distinguish what they call "origin-by-destination" combinations. This study finds firstly that labor market performance, as well as employment, varies significantly among the nations observed. Secondly, the 'origin effect,' 'destination effect' and 'community effect' over the labor market integration are inferred in conclusion as both human capital selective and discriminating. On the one hand, support to human capital selection was found; e.g., economic immigrants are more successful in the labor market than those from countries in politically suppressive conjunctures. On the other hand, contextual hypotheses of discrimination could not be rejected; for example, immigrants from Christian countries are less the focus of segregation than those from non-Christian regions.

Other studies corroborate that prejudice and discrimination are at least to some extent responsible for economic inequalities within minority groups. Pager, Western and Bonikowski's (2009) low-wage labor market field research in New York City demonstrates that black, white and Latino applicants with similar résumés have not the same chances to be contacted by employers. While black applicants get half of the odds as whites to get either a callback or a job offer, ex-inmate whites are more usually contacted than blacks and Latinos. On high-wage jobs' side, research in elite professional

service firms also provides information about the preferential treatment of some applicants over others regardless skills. Rivera (2012) finds that hiring processes in those firms relies not solely on competencies and capabilities, but also on specific cultural matching. Employers select qualified applicants who are also culturally similar to themselves “in terms of leisure pursuits, experiences, and self-presentation styles” (ibid: 999), closing thereby doors to candidates from minorities. To the extent which the decision to hire constitutes a key moment in the labor market stratification, these studies reconfirm the systematic racial/cultural segmentation as status quo in shaping low-wage as well as elite labor markets in the USA.

Research in the Netherlands also provides documentation about fewer employment opportunities for unskilled immigrants due to discrimination and to “insufficient or non-transferable qualifications” (Kanas/van Tubergen/van der Lippe 2009: 203). Foreigners with higher origin- and destination-country schooling are more likely to be under the salary-employed, while less educated individuals possess self-employment options as better chance to participate in the labor market and, thus, avoid poverty.

Research in Germany

Over the last few years, Germany has been experiencing a high net inflow of migrants and, thus, becoming a new immigration land. Analog to classic as well as other new immigrant countries, in the German labor market immigrants’ lower work positions and wages in comparison to natives’ have repeatedly been confirmed in empirical studies (see Constant/Massey 2005; Granato 2003; Kalter/Granato 2007). Foreigners are much more likely to be among the unemployed or the low-skilled employed (Granato 2003; Kogan 2010). The higher immigrants’ unemployment is partially attributed by scholars (e.g., Granato 2003: 24) to the relative low labor-force participation of foreigners – especially Turks – due to their different demographic composition compared to natives’. Additionally, Kanas et al. (2011) find that social capital can enlighten part of the disadvantages of immigrants. While having co-ethnic bonds and especially close contact with Germans facilitates immigrants’ entrance into the labor market and better-paid jobs, in comparison, the lack of this kind of relationships is by *reductio* disadvantageous and does not promote economic integration. Beyond demographic characteristics and social capital, human capital constitutes a convincing explanation to these inequalities. Immigrants are less skilled and productive than nationals and experience difficulties to translate their qualifications in the host country, as document Kanas and colleagues (2011: 3). However, many scholars state that disparities in the German labor market derive considerably from other factors.

Firstly corroborating the significant role of human capital, Constant and Massey’s⁸ (2005) findings evidence that the differences between immigrants and Germans are

⁸ The authors studied labor market positioning of guest workers by examining the German Socioeconomic Panel of years 1984-1997 in three stages: first occupation, final occupation, and earnings.

partly explained by the lower human capital stock of the former. Labor force recruitment in Germany in the second half of the twentieth century promoted, actually, low human capital migration personified by guest workers, interpreted by dual market theory as a response to workforce shortage in low-status jobs that natives rejected. Nevertheless, although controlled for equivalent human capital, guest workers experience more disadvantages compared to natives regarding occupational prestige and mobility as well as earnings. Immigrants struggle especially at the beginning with using their human capital and entering into the German labor market. They tend, thereby, to occupy lower positions than natives with same characteristics. Additionally, guest workers reach lower job mobility over time compared to Germans, which remains unexplained by human capital background. Notwithstanding, they maintain similar wages as Germans within the same jobs, which leaves earnings' discrimination out of the possible explanations to the lower earnings of immigrants. In conclusion, Constant and Massey indicate that the lower returns in prestige and earnings to immigrants are caused somewhat by segmentation in the labor market whereby selection in the occupational allocation of workers exists, instead of by discriminating wages in detriment to foreign employees within occupational groups. There is "a significant degree of ethnic segmentation upon entry into the German labor market, combined with some ethnic discrimination in the allocation of people to jobs thereafter" (2005: 508).

Kalter and Granato (2007) argue that ethnic stratification could be a constant trait of the German labor market, this being mainly explained by human capital. The authors state that firstly the predominant low levels of human capital among the 'classic' labor migrants in Germany – Greeks, Italians, (ex-)Yugoslavs, Iberians and Turks – and the new immigrants – from Eastern Europe, the Middle-East and Africa – shape ethnic layering in the labor market. These immigrants are more likely to occupy semi-skilled and unskilled positions (approx. 50% of male workers). As the exception, other immigrants from Western Europe⁹ and the USA are positive selected; i.e., they are to a large extent highly educated, even higher than natives' proportion of tertiary educated. Despite better education of second-generation migrants, segmentation remains (mostly in case of Turks), although diminished, "due to immigrants' children still missing the relevant human capital" (ibid: 310). Nonetheless, returns to higher human capital appear to be similar to natives solely in case of foreigners from West Europe and the USA. Other highly qualified immigrants confront severe difficulties in entering into the skilled labor market, while higher education does not diminish unemployment risks as it does by natives. Apparently, the "signaling power" of schooling attained in Germany is hugely relevant in occupational placement (ibid: 280). These disadvantage patterns are experienced more strongly by individuals from Eastern Europe, Africa, and the Middle-East.

⁹ The authors exclude from category Western Europe classic guest workers' providing countries.

Later research has suggested persistent disparities between natives and immigrants in the German labor market. Also corroborating findings exposed above, Kogan (2010) argues that differences in occupation and status are still there, even when educational levels are similar. Although newer immigrants have higher educational attainments than less recently arrived, they confront difficulties in translating their human capital and occupy, thus, similar work positions to them. The author concludes that immigrants, despite high human capital, face ethnical discrimination. However, she explains that due to the more favored legal status of 'Western'¹⁰ foreigners and the industrialized countries' facilities to transfer their qualifications, these immigrants are more likely to translate their human capital and, thereby, attain jobs in the primary labor market. By contrast, foreigners whose background is Eastern Europe, Africa, and the Middle East face several problems such as non-acknowledgment of skills while trying to integrate into the German labor market, being tendentiously led to work in the secondary market.

The German version of Pager, Western, and Bonikowski's (2009) field research, which I presented under the previous subtitle, likewise postulates ethnic discrimination in the labor market. Kaas and Manger's (2011) equivalent – but differing in having either German or Turkish names – internship applications show applicants' unequal treatment from firms, especially from small businesses. Being German raises the average odds to receive a callback by 14 percent, which implies statistical discrimination.

Research after the first significant refugee migratory waves in 2015 states that Germans favor some foreigners over others, although their preferences are somewhat disparate (Czymara/Schmidt-Catran 2016). On the one hand, politically persecuted individuals are better accepted than economic migrants, particularly regarding the right to receive social benefits from the government. However, immigrants who arrive already holding job contracts are rather accepted. On the other hand, independently of migration motivation, there is a marked preference for immigrants with higher human capital and lower cultural distance, while the role of competition on the labor market appears to be meaningless. E.g., Muslims tend to be discriminated in comparison to Christians, although political or religious refugees are mostly from predominantly Islamic regions. These findings evoke that Germans strongly reject the government sustainment of economic migrants, while they tend to approve foreigners from

¹⁰ 'Western countries' are defined in Kogan's research as individuals from EU-15 countries, the USA, Canada, Australia and New Zealand. Kogan's use of the term 'Western' includes the classic West (i.e., Western Europe) and Anglo speaking industrial countries. A similar categorization was developed by conservative political scientist Huntington (1996) ("The clash of civilizations"), although he had some other considerations. He included other Catholic-Protestant countries such as Poland as well as Hungary and considered that Latin America forms part of the occidental society or is another very akin to it. Whether Latin America belongs to the Occident is still discussed, while scholars use this term differently. For another use of the terminology 'Western' referring to economy, politics, culture, and shared history between West Europe and its Ex-colonies in the Americas, Oceania, and South Africa, see, e.g., Mora's (1961) historical review and Friedberg's article (2000).

which they expect some positive contribution to the country. Moreover, the aversion to farther culturally distanced individuals lies in the fear to lose the country's group identity: host country population interpret these immigrants as threats to their traditions.

3.2 Women's working roles

International research

Research in women's labor participation inevitably recalls the role of women in society. While men in modern as well as in traditional societies are mostly unquestionably supposed to be part of the labor force, women's economic activity varies along labor market, housework and children care. The fact is that in many countries females do not gather the same occupational attainments in their lifecycle as men do (Heath/Cheung 2007: 30). Moreover, women still do considerably more housework than their husbands, even in the most egalitarian societies (Batalova/Cohen 2002, as cited in Fuwa 2004: 752).

Usually, rational choice based on Becker's (1975) and Mincer and Polachek's (1974) research in human capital are standard in predicting the effects of policies, mating behavior, and labor market changes in women's labor participation (Stahl/Schober 2017: 5). Human capital studies point out that women's decisions lie on household's marginal opportunity costs of time; e.g., they are less likely to invest in education or post-migration training than men due to their alternative roles (Mincer/Polachek 1974; Chiswick/Miller 1992: 16). Meanwhile, sociological research suggests that women's behavior transcends rational choice: employment is crucially affected by institutionalized norms and how individual identities are constructed (Stahl/Schober 2017: 6).

Institutionalized norms and individual identities' concepts evoke men and women's roles in society, which vary across countries, within their borders, and over time. For example, on the one hand, in Scandinavian countries, which have reached the most egalitarian social conditions, women can negotiate their preferences (Fuwa 2004) and participate in the labor market at the highest proportions. On the other hand, women in Muslim regions are considered explicitly less valued than men and dependent of them, sometimes being prohibited from talking in their presence¹¹ (Epstein 2007: 16), voting or driving¹² (Inglehart/Norris 2003: 5). Work division follows rather severe principles whereby women are exclusively responsible for housework and childcare, having thus the Middle-East and North Africa the lowest rates of female labor force participation in the world (ibid.). Fuwa's (2004) research suggests that women's agency or lack of agency may be influenced by country-level gender inequality. She argues, in the first place, that women in less egalitarian countries profit less from individual

¹¹ This refers to societies dominated by the Taliban.

¹² Voting prohibition is referred to Kuwait, Qatar and Saudi Arabia while driving prohibition refers to Saudi Arabia. Women will be granted the right to drive in 2018 but only when accompanied by a man.

factors such as time availability and gender ideology in the equalization of housework division. In the second place, women's higher labor-force participation does not appear to promote always more balanced housework participation between men and women, however. Women still do the majority of the housework, as Blumberg explains (1984, as cited in *ibid.*), because their resources are not yet enough to establish an equal relation within the family.

In current welfare states, the old gender contract was based on men's breadwinner figure and women's housewife model (Lewis 2002). Since the second half of the twentieth century, women's labor and educational participation, and divorce rates have sharply increased, fertility rates have sunk, and patterns in childcare, household working time, and gender attitudes have considerably changed (Bianchi et al. 2012; Goldin 2006; Stevenson/Wolfers 2007, as cited in Killewald 2016; Guetto/Luijkx/Scherer 2015; Pfau-Effinger 2005). These transformations are conceptualized by Inglehart (1977) as the 'post-materialist shift' describing an intergenerational change in the values of postindustrial societies, which have turned from concentrating in economic and physical security to focusing on autonomy and self-identity. Secularization and rising of a "tide of gender equality" (Inglehart/Norris 2003: 49) with which an equal gendered division of unpaid and paid work has been attempted are specific processes of this era. As consequences of that, cultural rejection of traditional family models has been growing, while Church and State are granted less importance by individuals (Inglehart/Norris 2004; as cited in Guetto et al. 2015: 157). It is worth noting that similar processes have been analyzed by other authors as an effect of modernization; e.g., individualization's transitions whereby societal structures, as well as subjective schemes, change (Hradil 1992, as cited in Falk 1999: 34).

Welfare countries vary, however, in how they support women's labor participation and employment continuity, aspects related to gender equality (Pfau-Effinger 2005: 322). Scholars argue that different conjugal policies also encourage distinct family leave patterns also affecting career paths (Evertsson/Grunow/Aisenbrey 2016: 292). Empirical results have shown, moreover, that more extended work interruptions and part-time employment are related to women's downward occupational mobility (Dex 1987; Hayes/Miller 1993; as cited in Hong Li/Singelmann 1998: 318). E.g., Swedish women's higher attachment to the labor market is argued to be related to Sweden's culture and social democratic government. Their government favors gender equality as well as female autonomy by establishing measurements that support working mothers; for example, the broadest parental leave policy instituted in 1974, which replaced the maternity leave policy (Hong Li/Singelmann 1998; Evertsson/Grunow/Aisenbrey 2016). In comparison to Sweden, Western German society was described in 1990s research as more rigid and conservative, with the gender egalitarianism being rather weak and the family institution more traditional (Hong Li/Singelmann 1998: 330). A similar research eighteen years later explains that defamiliarization elements in policies were established more recently in Germany; the extended parental leave could, however, discourage an early return to work, whereas longer career breaks may negatively influence the occupational mobility of young

women (Evertsson/Grunow/Aisenbrey 2016). These international comparisons being indicated, further description of Germany is presented under the next subtitle.

Research in Germany

In agrarian Germany, women took care of the domestic work, although labor division did not exist rigidly. Men and women's roles in the family followed commonly a form called by scholars "extended household family" (Pfau-Effinger 1994: 1367). Wife, husband, and children lived together with other individuals, sharing all of them the productive activities of the household. However, men were household head.

As industrialization's processes took place, the urban bourgeoisie arose as the dominant class causing changes in family models. The new normative ideal, the 'bourgeois family', spread throughout all strata, defining strictly separated gendered roles: men's sphere was the labor market and women's, the household (von Trotha 1989; as cited in Pfau-Effinger 1994). Motherhood and housework were understood in bourgeois families as females' primary task as well as life purpose, whereas males were conceived as breadwinners (Lenz/Adler 2011). Moreover, this model was even supported and compelled by normative structures: e.g., 1896s Civil Code delimited the household as right and duty of women (Pfau-Effinger 1994). The little or disadvantaged labor market opportunities offered to women, besides the limited education reachable to them, confined them mostly to be housewives subordinated to men or to work in low-wage jobs when their husbands could not sustain the family by themselves. Even after World War II¹³, the bourgeois family normative remained dominant for many years (ibid.).

In contemporary Germany, post-materialist (Inglehart 1977) or individualization (Beck-Gernsheim 1983) trends characterized by secularization, the pursuit of own interests and gender equalization began in the 1960s. Since then, these have achieved much in educational expansion and women's participation in politics and the labor market. However, persistent gender segregation in specific jobs and a stable gender pay gap are part of the status quo, while the breadwinner-housewife model is, despite considerable changes in the mentioned aspects and women and men's roles, still a reference in the collective *imaginarium* (Koppetsch 2013).

According to Lenz and Adler (2011), socially expected is that men and women work and, when having offspring, mothers give up their professional careers for their children's first years of life and work part-time¹⁴ again after that period. The images of a "good mother" as well as of a "super mother" are widely spread. On the one hand, according to the good mother ideal, mothers and not fathers are primarily responsible for their children's well-being: they accompany children throughout life stages concentrating their greatest efforts on them (Pasquale 1998, as cited in ibid: 167). On the

¹³ Despite women's central role in rebuilding Germany, they were still subjugated to men.

¹⁴ It is worth mentioning that part-time work is considered among feminist scholars a form of females' generalized subjugation to men (Pfau-Effinger 1994).

other hand, super mothers are not only good mothers and housewives, but they also are successful in the labor market and sexually attractive partners. On men's side, men are not anymore conceived only as breadwinners and family heads: since the 1980s the figure of 'engaged' fathers emerged, through which men pay more attention to their children, although they are still the central task of women (Lenz/Adler 2011: 171).

Grunow, Schulz, and Blossfeld's (2007) research suggests that despite women's extended labor participation, after their labor irruption and lengthy full-time assumption of household and children responsibilities, families tend to re-establish a traditional division of work. Moreover, the return of the bourgeois family normative mainly due to the belief of some individuals that emancipation neither promotes marital nor family union is postulated in the research community (Koppetsch 2013). Furthermore, although gender inequalities in the public sphere have indeed been diminishing with the progressive labor market integration of women, unequal division of housework remains. E.g., economically active women did even in 2004 almost twice as much unpaid work as did men (Gille/Marbachs 2004, as cited in Lenz/Adler 2011).

3.3 Migrant women labor-force participation

Previous and current research finds a significant relationship between country of origin's female labor activity and destination country's labor-force participation of migrant women (van Tubergen/Maas/Flap 2004, Polavieja 2015, Frank/Hou 2015). Furthermore, labor participation in the country of ancestry has been demonstrated as a considerable predictor of work and fertility patterns in second generation females, being perceptions about working roles transmitted to them (Fernández/Fogli 2009). Although immigrant women are separated from the socioeconomic and institutional contexts of their origins, they keep beliefs, behaviors, and tendencies obtained there (Polavieja 2015).

Van Tubergen and colleagues' (2004) cross-national research demonstrates that carried cultural patterns such as the exclusion of women from the labor market in the source country are reproduced in the destination one to some extent. In contrast, high female labor participation in the source country correlates with high economic activity in the host country. Moreover, the size of the immigrant group is associated positively with the labor-force participation of that group, evoking consistency in the postulation that individuals benefit from their ethnic capital, which rises with community size. Furthermore, immigrant groups with higher education are more likely to be part of the working force: they profit from their ethnic capital and are less the focus of discrimination than lower status communities.

To the extent that cultural attitudes as part of ethnic capital influence individuals' display of human capital, Polavieja (2015) corroborates that migrant women's tendency to participate in the labor market is related to the culture brought by them into the destination country. Via his comparison of beliefs and preferences from non-migrants at the country of origin with their equivalent immigrants in the destination one, he

shows that inherited traditional values are major linked to women staying at home and being housewives. Polavieja's findings suggest that female migrant labor supply in Europe is influenced by immigrants' country of origin; being Turkish women the most traditional and least employed, Scandinavians the least traditional and most employed, while German women hold average values. Moreover, the author tested the correlation between traditionalism and self-reported religiosity arguing the essentiality of gender traditionalism to all Abrahamic religions. Results are robust: the correlation is 0.44 at individual level and 0.67 at origin level.

Guetto, Luijkx, and Scherer (2015) separate analyses of religiosity and gender attitudes in European women show similar associations. Firstly, gender attitudes are linked to labor market decisions. Secondly, religion is argued to be a predictor of working and family patterns due to its normative nature, which implicates traditional labor division and gender attitudes (Guiso et al. 2003; H'madoun 2010; Inglehart/Appel 1989; as cited in *ibid*: 157; Inglehart/Norris 2003: 50). However, the decline of Church's authority and traditional values due to the 'post-materialist shift' implies weaker associations between religiosity and labor market decisions, fertility, and housewifery. Although religiosity levels have diminished in all nations studied, the authors conclude that higher religiosity is related to higher fertility and housewifery, being religious women less likely to participate in the labor market. Those associations are stronger in case of more traditional societies such as Poland. Contradicting previous documentation regarding fertility, the most secularized and gender egalitarian countries, the Scandinavian, have both the highest women's labor-force participation and the highest fertility. Esping-Andersen (2009, as cited in *ibid*: 168) traces back this fact to a more equal care and housework division in these nations.

Other scholars suggest that the relationship between labor-force participation in countries of destination and origin is not directly related to cultural attitudes. In their research, Frank and Hou (2015) show that gender role ideology has a moderate correlation with the economic activity of foreign women in Canada solely. E.g., the highest female labor participation rates are found among sub-Saharan source countries, which host less egalitarian gender role relations but high female employment in the 'peripheral segment'. Origin country's characteristics regarding gender role attitudes may be related to the human capital of women. For example, in contexts of subordination to men, women are denied education. Overall, women from low female labor-force participation nations (defined as below 50%), which are also less developed, are less likely to be employed or concentrate in low-wage jobs than those from high female labor participation nations. Factors such as arriving from a developed or a Western country, being higher educated, migrating at a younger age and having resided for a more extended period in Canada are linked to women being employed in high paying industries and occupations.

As mentioned above, some de-familiarization politics have turned out to influence oppositely the labor-force participation of women. For example, home care allowance

reform of 2013 called “Betreuungsgeld” has had inverse effects on female employment, especially on migrants, as suggested by Fendel and Jochimsen (2017). Their findings indicate that migrant women are more likely to have children and to raise them without any public support, with unemployment given more often among them than in case of Germans. These facts are explained to be linked to the opportunity costs of inferior occupations, which are the only job positions granted to many foreign women, and to women’s higher likelihood to be tied movers. As shown in the last paragraphs, this may also be related to the institutional, cultural and socioeconomic context of their countries of origin, along with human capital and possible labor market segmentation. Nonetheless, other policies such as 2013 childcare subsidy have been shown to impulse the labor participation of mothers. E.g., employment and public childcare use have increased between 1997 and 2013 mostly among mothers with medium and high education (Stahl/Schober 2017).

4 Concepts and theories

This chapter offers an overview of the central concepts and theories which lead this project in the analysis of labor market participation of migrant women. To better understand the object of study, I start introducing the definitions of labor market and labor-force participation. After that, I present a brief overview of labor market theories, followed by the two intensively outlined labor market theories guiding this thesis. Gendered roles perspective, necessary to analyze immigrant women’s labor participation, is reviewed in the last part.

4.1 Labor market participation

Labor market’s concept has not a unique definition. For example, it has been applied to refer to various matters such as geographical spaces, occupational groups and workers’ groups characterized by their ethnicity, race, sex, and qualifications. In social sciences as well as in administrative institutions, however, labor markets are abstractly comprehended as “the arenas in which workers exchange their labor power in return for wages, status and other job rewards” (Kalleberg/Sørensen 1979: 351). Institutional and practical structures delimit the pricing of labor, the distribution of work among individuals and the rules whereby employment, mobility and skill attainment are shaped. Furthermore, Kalleberg and Sørensen identify three main outcomes for employment.¹⁵ First, it is formed by the unequal distribution of financial rewards, including earnings and wage rates, as well as of non-monetary rewards such as status, prestige, and psychological benefits (job satisfaction). Second, labor returns are described regarding mobility and career lines. Mobility patterns and changes in job returns give insights on how structural aspects of the labor market allow or obstruct

¹⁵ The authors sustain additionally that labor market investigation has been developed around these three extensive returns to work.

individuals' socioeconomic attainments. Third, results of work are further differentiated by the belonging of an individual to a determinate group "defined by race, sex, and ethnicity" (1979: 354).

Alongside the labor market, there are also several definitions of labor market participation. It can evoke the actual activity or the willingness of individuals to work – i.e., whether the individual is actually employed or looking for work – (van Tubergen et al. 2004), the employment situation *de facto* (Polavieja 2015) or the success in the labor market (Granato 2003). Other definitions also involve the occupational attainment as well as the work opportunities offered and limited by employers (Constant/Massey 2005). Given that I adopt the definition of labor market as mentioned above, in this paper labor-force participation consists of the actual work supplied in exchange for rewards from the labor market. Although domestic work is currently considered an essential work for society in the social sciences, it is conceived mostly as 'reproductive' work vis-à-vis 'productive' work (Kilkey/Perrons 2010: 240).¹⁶ Since domestic work remains primarily unpaid and, thus, excluded from the labor market, it forms no part of the labor market participation. This being said, I extensively explain the labor market theories which guide this paper in the subsequent point.

4.2 Labor market theories

4.2.1 Human capital theory

Human capital is formed by skills, talents as well as personal characteristics of individuals; it develops during the lifetime influencing the productivity in the labor market, occupational position and, thus, income. As explained above, human capital theory claims that differences in wages depend on the individual skill set. Becker (1975) postulates the relevant role of increasing resources of people on human capital stock, especially on education, upon their economic development. This act is called 'investment' emphasizing that, for example, phases of schooling or training are time and possibly resource consuming, shortening the working life period but raising the income levels (Mincer 1974: 7). Higher incomes, hence, can be interpreted as returns cumulated by further investment (*ibid*: 101). The opportunity costs of investments attribute them their costly nature (Goldin 2014: 22). Investments in human capital include education, on-the-job training, health, migration, and knowledge about prices and incomes. According to Becker, "they differ in their effects on earnings and consumption, in the amounts typically invested, in the size of returns, and in the extent to which the connection between investment and return is perceived. But all these investments improve skills, knowledge, or health, and thereby raise money or psychic incomes." (1975: 9). Nonetheless, human capital stock can sink due to depreciation factors such as aging (*ibid*: 47). The theory posits that most of the investments are

¹⁶ Nevertheless, this definition is being discussed because of the essential nature of domestic work for the economies. According to some scholars, it should be reformulated and considered part of the labor force (Epstein 2007).

concentrated at younger ages, but persist at reducing rate through much of the working life. Empirical evidence points out that working experience related to post-school self-investment activities are much more relevant to an individual's economic development than aging, however (ibid.).

Regarding education, Becker (1975) argues in favor of different type-related relevancies among occupations. That is, schooling and on-the-job training vary in their importance from job to job according to their tendency to be practical or theoretical, or both, and differ at the same time in the apprenticeship level required. Overall, schooling provides formal knowledge which cannot be attained in other ways and, thereby, constitutes a primary action to raise economic possibilities. Concerning on-the-job training, on the one hand, workers with specific training are themselves less likely to quit because they expect to collect some returns for the training. On the other hand, specific training causes employees to be more important for the firm and, thus, less vulnerable to be laid off. Unemployment is higher among the unskilled because of firms' interest in keeping rather skilled employees and, on the other side, due to the more significant incentives given to skilled employees to stay at work (ibid.; Mincer 1974). In conclusion, labor market opportunities, job-related stability, and self-motivation to work increase when the individual acquires specific skills mostly based on education.

Besides formal and on-the-job education, other aspects are of import for human capital stock. Gathering knowledge about the economic, political, and social system increases human capital (Becker 1975) because having information about the labor market opportunities and the respective wages represents an advantage compared to the negative implications of ignorance. Additionally, human capital also depends on emotional and physical health. Measured in economic terms, an improvement in employees' health can raise the productivity of firms; improved health gives individuals more chances in the labor market. Investments in health, however, are "outside" human investments which are undertaken instead in households or medical institutions than in firms (ibid: 41).¹⁷

In general, education, job-related experience, health, migration, and understanding of the labor market form human capital and can likewise be improved. However, even though some people find themselves in similar conditions, assimilation of learning and marketability of expertise and qualifications differ among persons, places, and time (Mincer 1974: 1). Mincer addresses the volubility of knowledge despite standardization of education upon economic development, leaving scope to other more relative, unobservable factors and traits; in the author's words the "random component" (1974: 119). To understand different performances in the labor market, which could not be

¹⁷ Regarding this topic, it is valuable to remark that currently large companies' investments in employees' health and motivation constitute a somewhat established trend.

explained by the original logic of human capital which is native-male-centered, scholars developed theories to analyze differentiated accumulation and transferability of human capital, presented in the two subchapters which follow.

Human capital, women, and family

From human capital perspective, “the family is viewed as an economic unit which shares consumption and allocates production at home and in the market as well as the investments in physical and human capital of its members” (Mincer/Polachek 1974: 397). On the one hand, family consumption is not conceived as separate decisions of its members but as household decisions. On the other hand, the time spent in the labor market and non-labor-market fields is, by definition, a result of the choices of the interdependent family.

Moreover, the division of work is delineated by those authors as an implicated characteristic of the family, which implicates differentiation of roles. In this sense, because of their traditional alternative roles as mothers and housewives, women are told to be less the focus of human capital investment¹⁸. Further explanation is provided by Mincer: if individuals expect to participate in the labor market only during a period of their adult lives, they are less motivated to invest in human capital than persons that expect to be in the labor market for the most time of their adult lives (1974: 122-123). When following traditional roles, women may reduce their labor participation to be able to look after their children, especially when these are not yet at school. In this address, Polachek states that reductions in educational return simultaneously diminish the value of investments, so “dropping out of the labor force to bear and raise children reduces lifetime work years, which in turn decreases the potential rewards from human capital” (2004: 4). Labor-force withdrawal¹⁹ causes current and future minimization of earnings, given that human capital suffers depreciation during the nonparticipation phase (Mincer/Polachek 1974: 426). This minimization equals the opportunity costs of the investments in human capital (Mincer 1974: 141).

Related to modernization and secularization, over time the rise of women’s labor participation implicates simultaneously increasing investments in human capital (Polachek 2004: 1). However, the importance of traditional alternative roles in human capital as well as the lower women’s labor-force participation than men’s is still cur-

¹⁸ The fewer investments of women in schooling and vocational education and their lesser labor participation and earnings in comparison to men in the 1970s were interpreted as product of those roles, implied by the family institution (ibid.).

¹⁹ Polachek and Mincer (1974: 428) propose, furthermore, that renounced human capital of mothers is to some extent the cost for attaining human capital for the children. Moreover, regarding well-known intergenerational influences in social mobility research, Mincer (1974) links the particular role of the mother in children’s human capital. The significant relation between the educational attainments of children and that of their parents, especially of the mother, could exist due to whether a tendency among the better educated parents to invest in their children’s schooling (i.e. human capital) or a transmission of traits within the family, or both (ibid: 140).

rent. This fact could explain why Mincer and Polachek's 1970s theories – when females were much less in the workforce – are still part of current human capital research applied to women (e.g., Granato 2003, Achatz 2008). Women's traditional roles in Germany can be assumed as still relevant, along with other newest roles (Pfau-Effinger 1994: 1368; Lenz/Adler 2011: 166).

From human capital theory, the opportunity costs of taking care of home and children, rather than participating in the labor market, or vice versa, could enlighten the preferences of married women as household decisions. In sum, families' perceptions of prices and benefits are crucial in labor market participation. However, as to be presented in point 2.4, decisions are not only taken due to rational choice, but also to other factors such as generalized expectation that family is the responsibility of women, while labor market work is rather conceived as men's task.

Human capital and migration

“For much of recorded history, income levels were low, lives were short and there was little or no economic growth. We now have healthier, longer, richer and hopefully happier lives. The regime shift involved increased knowledge and its diffusion, greater levels of training and education, improved health, more migration, fertility change and the demographic transition. In short, the process involved advances in human capital.” (Goldin 2014: 1)

Claudia Goldin's historical perspective of human capital underlines the (worldwide?) transition from lower to higher productivity stages. However, continents, regions, and nations develop diversely. In times of globalization, productivity and human capital vary along social, cultural, economic and political limits, creating strongly differentiated transitions and allowing migration to be more than ever a widespread form of investment in human capital.

The human capital thesis states that migration occurs mostly from lower-wage spaces to higher-wage spaces to improve the migrants' economic situation (Becker 1975; Borjas 1999). From this perspective, migration is considered an investment due to the aim of gathering better human capital in an environment with higher productivity (Constant/Massey 2005: 492). However, this research is not addressing the reasons to migrate; it attempts to explain the labor-force participation of immigrant women instead. Therefore, it is more relevant to focus on aspects of human capital, its transferability, and accumulation, which delimit the economic performance of individuals after migration.

Human capital stock suffers a transformation through the migration process. After the arrival in a foreign country, human capital mostly diminishes (Becker 1975: 231). Chiswick and Miller (1992) sustain that post-migration individual's labor market-related situation and, thus, her/his investment decisions depend somehow on pre-immigration individual's conditions, class of admission and experience after migration.

Firstly, pre-immigration conditions are referred mainly to age, education, occupation, country of origin, and language proficiency. Since older individuals confront higher opportunity costs of education or training with shorter working-lives and benefits, age at arrival is inversely related to human capital investments. Education and occupation attained in the country of origin may positively affect the job opportunities after migration. Better-educated individuals and those with higher qualified positions before migration are also more likely to invest in schooling and training in country of destination (ibid: 14). However, the “national origin of an individual’s human capital is a crucial determinant of its value” (Friedberg 2000: 221). Education and on-the-job training obtained abroad are mostly less valuable than skills attained in the host country. Therefore, an explanation for discrimination of foreign applicants lies in the ignorance about their productivity. Previous schooling and job experience appear to be difficult to verify to employers. Hence, hiring immigrants may represent more significant risks for employers, compared to native workers, regarding their performance at work (Chiswick 1978: 901). Thus, returns to human capital attained abroad may be significantly lower than returns to domestically acquired qualifications and experience (Friedberg 2000: 221).

Moreover, the transferability of skills relies upon the educational quality and the compatibility of foreign and domestic human capital stock (Friedberg 2000: 225-226). In the first place, immigrants from more developed countries tendentially receive higher returns to schooling than those from developing countries due to the supposed general lower quality of education in the latter. In the second place, the ‘portability’ of human capital also lies in the compatibility of skills attained abroad with the qualification requirements in the destination country’s labor market. Chiswick and Miller summarize, furthermore, that the transferability depends on the similarity between the origin and destination countries (1992: 7). The closer the resemblance between the two countries regarding economic development, industrial and employment structures as well as institutions, the higher the odds that immigrants’ educational skills and work experience will be recognized and positively valued in the host labor market (Friedberg 2000: 225-226). Thereby, the acknowledgment of foreign qualifications is largely related to the similarity and compatibility between origin and destination spaces (Granato 2003: 29).

Host-language skills can be seen as part of the pre-immigration qualifications and can, like other kinds of human capital, be improved upon after migration. Hence, idiomatic aspects are conditional either on the similarity between the country of origin and destination or on the institutional facilities to learn destination country skills before migration. Chiswick (2016: 5) explains that being migrant in a land with the same or a closer language is more accessible than in one with a large linguistic distance. For dominant-language non-speakers, economic success relies strongly on the capacity and velocity to learn that language (ibid: 2). He states: “Although the effects vary somewhat across countries, immigrants who are more proficient in the host country language are more likely to be employed, when employed earn more, are more likely to become citizens, and have a higher propensity to marry someone born outside of

their country of origin or ethnic group.” (ibid: 3). In sum, linguistic assimilation is considerably related to individuals' social, cultural, political and economic integration into society (ibid. 10). Moreover, some factors beyond linguistic closeness facilitate or hinder the effectiveness to learn the dominant language in the host country. Young immigrants acquire language proficiency heavily more efficiently than older migrants, while education is also related to gathering foreign language skills efficiently (ibid: 5). However, to master the language could promote vice versa undertaking investments in education, which means that both aspects are endogenous.

Second or third generation migrants acquire the host language as native speakers. By attending formal education, receiving influences from media and spending time with native-language speakers, non-first generation immigrants learn the host language while they tendentiously – although not always – lose the heritage one. The heritage language's loss means at the same time the weakening of ties to origin and non-migrant relatives in the native country. On the contrary, when maintaining that language, which is more likely in enclaves, individuals tend to keep their heritage and contact to their family (Chiswick 2016: 6).

Secondly, class of admission describes the path, legal or illegal, of arrival to the destination country. Migration entrances are different and could be seen as migration motives. They diversely affect immigrants' performance or inclusion in the labor market. Whereas economic migrants plan to move in search for better labor market opportunities, thus, having probably more transferable skills, refugees obtain less destination-specific qualifications due to their unarranged migration (Chiswick 1978). Beyond this, refugees cannot know prior to migration which country will grant them asylum and, therefore, the preparation needed remains uncertain (Chiswick/Miller 1992: 9). Another form of migration is the tie-pathway, which follows the spouse of the principal economic migrant mostly. Concerning this, “tied movers migrate primarily on the basis of kinship ties rather than on the basis of the maximization of their own individual economic well being” (ibid.). Hence, tied movers can be expected to possess less transferable human capital, being comparably disadvantaged (ibid., Chiswick 1999: 63).

Thirdly, labor market performance and success depend also on the post-migration experience, which includes after arrival investments and duration in the host country. Because employers know less about the productivity of an immigrant applicant than a native one with similar features, the chances of the foreigner to get hired are comparably low. Thereby, higher educated immigrants tend to invest in human capital after migration (Chiswick 1978: 901). Chiswick and Miller posit: “as immigrants find their country-of-origin human capital depreciated in the destination labor market, their incentives for post-migration investment would be relatively strong” (1992: 7). Investments are undertaken either by transferring pre-immigration skills or by gathering destination-specific education and knowledge. Regarding the logic of costs and benefits, those investments happen tendentiously in early stages post-migration, shrinking over time (ibid: 10), and are more likely in individuals who intend to remain in the host

country (ibid: 21). Learning the dominant language of the host country as well as acquiring on-the-job training and formal education constitute essential investments for immigrants (ibid: 1). Moreover, gaining experience relevant to the specific labor market and improving institutional knowledge may raise the possibility to get a better-paid job (Chiswick 2016: 8, Constant/Massey 2005). Human capital also depends on the length of time spent in the new country (Chiswick/Miller 1992). In other words, after the first fall after migration, it increases over time. The widening of capitals of immigrants in the host country holds per se great importance to stimulate or promote assimilation processes in the local labor market, denoting augmentation in individual's opportunities (Constant/Massey 2005).

When overseas attained skills are recognized as valid, individuals tend to invest less in the host country (Chiswick/Miller 1992: 15). This implicates that for immigrants from less similar countries of origin, post-immigration investments are more necessary to attain qualified job-positions. However, Friedberg (2000: 226) posits that the majority of immigrants are confined to perform low-skill jobs which demand less language knowledge and country-specific human capital directly after arrival.

4.2.2 Segmented labor market theory

Segmented labor market theory states the division of the labor market, boosted by economic and political forces, in two or more submarkets with different features and rules (Reich et al. 1973: 359). Human capital stock is explained to have more significant effects on occupational allocation and earnings in the privileged sectors. Segmentation implicates that systematical barriers between the sectors hurdle mobility between them, thus, preventing specific groups from entering to the better one (see Granato's review 2003).

Reich et al. (1973) sustain that segmented labor markets rose since roughly 1890, encouraged mainly by economic forces following the 'divide and conquer' principle. First, internal markets emerged, as postulated by Doeringer and Piore (1971), implying changes in the internal relations within firms. Internal labor markets are characterized by bureaucratization, hierarchical control, "top-down" authority, job ladders, determined "entry-level" jobs and regulated promotion (Reich et al. 1973: 362). Worker unions undermined by job fragmentation, systemic forces triggered by corporations sharpened the dualism generated by internal markets developing different working conditions regarding the environment, wages, and mobility patterns. These changes resulted in the "dichotomization of the urban labor market into "primary" and "secondary" sectors" (ibid: 363-364).

Dual labor market theory was developed with the parallel approach of center and peripheral economies. This approach states that firms with specific market power, which operate at the center economy, tend progressively to take control of the contingencies, thus dominating and inhibiting the subsistence of firms hosted in the periphery (Averitt 1968 as cited in Wilson/Portes 1980). Dual market theory sustains that the

primary sector is characterized by high salaries, stability at work, chances of upward mobility, equity, and good working terms (Doeringer/Piore 1971: 165). Likewise, it requires skilled workers who receive on-the-job training and would possibly climb the career ladder. Pretty different to it, the secondary segment hosts the contrary aspects and is mainly occupied by youth and the 'disadvantaged' (Piore 1973: 383). Jobs in the secondary market are distinguished by unskilled tasks, instability, low income, low prestige, low job attachment, low returns to investments in human capital and dissatisfaction among the workers (Piore 1973; Doeringer/Piore 1971; Wilson/Portes 1980; Constant/Massey 2005). Unemployment in poor zones is explained by dual labor market theory as a reflection of the instability in the secondary labor market, caused by the high rates of turnover (Doeringer/Piore 1971: 166). Constant and Massey explain further: "The secondary sector demands unskilled, rudimentary, menial, repetitive, interchangeable, and substitutable or expendable labor (...) The earnings profile in this sector is flatter than the earnings profile in the primary sector" (2005: 493). However, dual market theory supposes no extreme dichotomy in the labor market; the sectors are relative unsteady and the barriers between them, changeable (Doeringer/Piore 1971: 178).

Segmentation is explained to emerge and be perpetuated due to its functionality because it supports the reproduction of capitalist hegemony. In the first place, it discourages potential union between workers, given that some of them benefit more from work than others. In the second place, due to the limited mobility aspirations of employees, social institutions are not pushed to change, thus maintaining class structures. In the third place, in the words of Reich and coauthors, the "division of workers into segments legitimizes inequalities in authority and control between superiors and subordinates. For example, institutional sexism and racism reinforce the industrial authority of white male foremen." (1973: 364).

Rational choice theory points out the tendency within the workers in the secondary market to improve their situation, which would mean reaching the primary labor market. Nevertheless, disadvantaged workers are rather confined to the secondary sector due to "residence, inadequate skills, poor work histories, and discrimination" (Doeringer/Piore 1971: 166), from which they hardly arise into the primary labor market²⁰. Particularly some groups of workers such as immigrants and women confront more boundaries between the segments (Constant/Massey 2005: 493).

²⁰ However, this kind of "entrapment" in the second economy is not insurmountable. Few new non-skilled immigrant groups have shown during the history that despite not possessing any qualifications positive social mobility is possible. Wilson and Portes (1980) state the success of some enclave economies in upwards social mobility. Some immigrant groups like the Cubans in Miami have shown the feasibility of gathering better positions by entering to firms which share their culture or by setting up new businesses on the basis of alternative own institutions. Beyond their findings, these authors state that segmented labor market barriers cannot be told to be impenetrable or rigid.

Segmented labor market, women, and immigrants

New immigrants were considered firstly in segmented market theory “mainly as additions to the secondary labor market linked with small peripheral firms” (Wilson/Portes 1980: 295). Over time, nevertheless, they could not be conceived necessarily as part of the secondary market considering highly skilled workforce recruitment. Dual labor market theory sustains, however, that international mobility of workers responded firstly to the recruitment of labor supply in the host country to overcome labor shortage in job positions that natives did not want to occupy (Piore 1979). The lack of workforce on certain occupations means an unwanted alteration in the economic conditions. With the purpose of offsetting these changes, societies may react recurring to policies of international recruitment of labor force.

Minorities in industrial countries work in higher proportions than natives in low-wage jobs. Among immigrants in the secondary sector, “past occupational experience and other investments in human capital count very little for these immigrants because, unlike workers in the primary sector, they are hired primarily because of their vulnerability rather than their skills” (Wilson/Portes, 1980: 300). The social and economic systems of segmented labor markets act inhibiting mobility upward (Constant/Massey 2005). Furthermore, not only immigrants but also women are rather excluded from the primary labor market (Granato 2003).

The systematical allocation of immigrants and women in the secondary sector could be certainly enlightened by the hiring and the training costs of internal labor markets (Granato 2003, Constant/Massey 2005). To the extent that the primary labor market is composed by internal markets, while the secondary market is less likely to form them (Doeringer/Piore 1971: 167-168), the relative costs borne by employers are strongly higher in the primary submarket. Internal labor markets contain allocative structures which arrange specific mobility clusters to minimize costs: any change such as turnover implicates adjustment, which generates extra costs to employers (ibid: 57). Entrance to internal labor markets is limited to some ‘entry ports’ in the job queueing controlled by employers or ‘gatekeepers’, contrasting with all-level recruitment indicated by neoclassical models (Nowak 1979: 22). The relative costs generated by turnover of skilled workers – who were specially trained and relatively performed complex tasks – are high.

Moreover, from employers’ perspective, individuals compete against each other for work positions not based on their acceptance of wages, but rather “on their relative costs of being trained to fill whatever job is being considered” (Thurow 1975: 75). The job-competition model explains that firms’ valuation criteria of the relative costs resulting from hiring an applicant influence the queue position of her or him. This position depends on the desirability of applicants according to employers, which implies to some extent prejudiced estimations of their potential marginal productivity (Thurow 1969: 48). One of the main costs of on-the-job training which constitutes part of the relative costs relies upon the expected duration at work. Hence, due to a supposed short or temporary stay of immigrants in the host country, the relative costs of hiring

them are higher than the costs of hiring native applicants (Diekmann 1985: 24, as cited in Granato 2003: 47). Following this logic, the relative costs of employing women in qualified positions are higher than employing men, because of discriminating expectation of females' shorter stay at work due to mothering. The concept of alternative roles, as analogically seen in the human capital subchapter, could clarify further the systematical allocation of some groups in the secondary labor market. Women, as well as immigrants, have alternative roles to labor market participation based on the expectations of firms' gatekeepers; for example, that the family is females' main responsibility and immigrants will return to their countries of origin. In comparison to them, native men possess no alternative roles in the eyes of employers, being rather the focus of employers' investments (Diekmann 1985: 28, as cited in Granato 2003: 47).

Dual labor market theory constitutes a framework to contemplate and explain the labor-force distribution and low social mobility. Women and immigrants' systematic allocation in the secondary market is more likely to happen than men and natives' placement there. Hereinafter, a crucial aspect of society for the research of women in the labor market in Germany (and clearly, worldwide) is introduced: gendered roles.

4.3 Cultural attitudes towards gender

First of all, to understand the role of culture better, it is worth defining what it is. Despite the existing agreement among researchers about culture's influence over human behavior, consensus about its conceptualization has not been reached yet (Polavieja 2015). Culture constitutes a much-disputed notion in the social sciences, being comprehended in substantially differing forms by scholars in anthropology, sociology, and economy (Small/Harding/Lamont 2010). In this paper, culture is defined as the institutionalized values and norms common to the members of a society or to the groups within it, together with the material things they create. In short, culture refers to the *way of life*, containing elements such as dressing, language, marriage and family customs, work patterns, religion and leisure pursuit (Giddens 1989: 31).

Attitudes towards gender are constructed by human agency around those cultural elements. In this address, Cynthia F. Epstein (2007) explains that the gender divide is the basis of most great institutions, including division in domestic work, labor-force, politics, and religion. Reinforcing women's reproductive and supportive tasks, worldwide gendered roles constrain women's autonomy as well as involvement in decision making and high-return positions. Although privileged women may do better than less favored men, the category 'woman' is globally subordinated to its male counterpart, with the gap between them being a continuum from minor to major inequalities.

The primary justification for those inequalities is related to religious beliefs and ideologies based on vast biological differences between men and women, and correspond

with societal functioning and social order as well²¹. The internalized culture in society delimits the character and competence arrangements of typical men and women, i.e., their symbolic roles, rather favoring men's power over women (Epstein 2007). Bourdieu (1984: 471) recalls in this concern that subjugated groups tend to contribute to their own domination by attributing "to themselves what the distribution attributes to them [...] defining themselves as the established order defines them", i.e., thinking of it as normal and legitimate. Moreover, orienting practical knowledge gives sexual labor division a natural appearance, which reinforces the social order (ibid: 466).

Given the significant character of gendered roles, generally speaking, women are worldwide socially prescribed and constrained to do domestic work and be outside the labor force. Another common prescription among many societies implies that they may work in what dual labor market theory names the secondary labor market. In the words of Epstein, in "those [jobs] that are not physically easier [...], but rather those that are avoided by men, pay little, and are under the supervision of men" (2007: 10). Through secularization and modernization experienced by many cultures (Inglehart/Norris 2003), however, the principle of equality between men and women has been relatively established. Women have great access to education and, as could be expected, consequently to the highest statuses. Nevertheless, prejudice and social practices still block or hurdle them entrance to leadership positions acting as 'gate-keepers' (Epstein 2007). E.g., the media keep remarking inherent differences between genders, emphasizing that women and men think and act automatically somewhat emotionally or rationally, creating ubiquitous attributions as well as what Robert Merton called "pluralistic ignorance"²² ([1949] 1963, as cited in ibid).

The criteria of gendered roles whereby women and men are not supposed to work or should work part-time or full-time are further conceived by scholars via the concepts of 'gender contract' or 'gender relations'²³. Pfau-Effinger (1994) postulates that the gender contract of society is displayed through the dominant model of family and women and men's integration in the society, delimited mainly via the labor-force, family and other social spheres' arrangements. Moreover, these principles are country

²¹ E.g. Talcott Parsons (1954) described the functional character of women staying at home to bear the family and, thus, not being in competition with their husbands (as cited in Epstein 2007: 5).

²² "Pluralistic ignorance" refers to commonly shared beliefs, which are empirically incorrect.

²³ Pfau-Effinger (1993: 1359) argues that the concepts of "gender contract" and "gender relations" refer both to the criteria mentioned above, but oppose each other in their conceptualization of change in society. She indicates that gender contract implicates the contribution of all actors to the "*reproduction and changing of structures*"; whereas gender relations are a "*basic structuration principle*" which do not sketch out the transformation of society by individuals. Nevertheless, following structuration theory, structuration principles are submitted to agents' action through social practices, which *reproduce* as well as *change* society's structures (Giddens 1984). On this basis, I will refer from now on to the gender related principles of society – i.e. gender relations – or to gender contract because both are mainly concerned with the same arrangements in society and include their changing elements as well.

reliant, because cultural norms and values, as well as economic and institutional factors, are interdependent (remembering the duality of structure) within its geographical borders. For example, welfare states institutionally support women's labor-force integration when providing public child care.

Although immigrants are separated from the socioeconomic and legal contexts of origin, which support their internalized gender contracts, gender attitudes are (at least partially) brought to the destination country. Polavieja (2015) points out the relevance of the traditionalism element on gender roles. Specific gender relations are transmitted from one generation to other according to the grade of society's traditionalism. Traditionalism of values does not challenge the status quo nor encourages women to invest in human capital, it promotes traditional gender and family roles instead (Polavieja 2015). Interlinked with traditionalism, religion justifies and reinforces those values.

The gender contract is carried with migrants as psychological and cultural traits (Epstein 2007; Polavieja 2015). Considering psychological aspects regarding women's behavior goes beyond the scope of this research, however. Thereby, only gender attitudes as part of culture are foci of this study, alongside individual and structural aspects of labor participation.

5 Hypotheses

The presented theories and studies provide this research with theoretical underpinnings as well as empirical documentation that explain certain angles of migrant women's labor participation. The complexity of the subject becomes clearer after understanding some of the different sides of this practice. From the perspectives of the individual, structures, and culture, several factors have been demonstrated to influence the economic activity of foreign women.

Most hypotheses were derived from human capital theory because it was the most workable approach within the dataset. According to this view, labor market decisions are made regarding rational choice and opportunity costs of time invested. Individuals try, thereby, to convert their human capital stock – which is composed mainly by education but also by on-the-job training, experience, and health – in the highest job positions possible (Becker 1975). Additionally, women's labor force withdrawal when having offspring is argued to be related to household's decisions (Mincer/Polachek 1974). Their human capital may exert an influence over the decision whether to participate in the labor market - collecting the returns to their investments - or to spend their time for housework and childcare, also considering Germany's subsidies policies (e.g., Fendel/Jochimsen 2017). However, if migrants are unable to translate their qualifications, occupying better job positions is unlikely (Chiswick/Miller 1992). Aspects such as similarities between origin and destination countries, class of migration, language skills, and time in the host country are relevant to the economic position and

labor market performance of immigrants. Given that second generation migrants attend to destination country's school and acquire the host language as natives, they should do better than other migrants in the labor market (Chiswick 2016).

Segmented labor market theory's hypotheses require more explanation. The central thesis of this approach is that labor market barriers against some groups of individuals are established to favor capitalist interests, with institutions and employers' prejudice promoting these boundaries. The standard method initiated by Doeringer and Piore (1971) concludes segmentation in the labor market from differential returns to equal human capital. In this sense, fewer immigrants than natives working in the primary labor market suggest no segmentation per se when the former are less skilled than the latter. This case would rather symbolize that immigrants are negatively selected, being less likely to accumulate human capital and, thus, work in the primary sector. The existence of segmentation in the labor market implies differential returns, with immigrants being treated divergently despite having similar skills. It is worth noting that this assumption may overlap with migrants' varying transferability of skills proposed by human capital theorists, however.

Although dual labor market theory is very divergent from human capital theory, some of its indicators correspond with those developed by migration-human capital theorists. For example, scholars suggest that differential recognition of skills by region of origin signals segmentation (Constant/Massey 2005; Kogan 2010; Wilson/Portes 1980). Alongside that, human capital theory assumes that qualifications' transferability is higher in case that immigrants arrive from similar and developed countries (Chiswick 1978; Chiswick/Miller 1992; Friedberg 2000). Furthermore, this suggests also that education in less-similar countries is related to fewer job opportunities and, as a consequence, lower participation rates.

Since labor market decisions are household choices, perceived opportunity costs exert influence over labor participation, as said before. It could be expectable that unskilled women tend not to work when having young children or being married, also considering traditionalism of gender attitudes and practices. Not working might be given exclusively due to household decisions or/and traditionalism. Nevertheless, an exception may be personified by non-working higher educated women. Augmenting human capital symbolizes the willingness to be active in the labor market to collect the maximum possible rewards, as well as non-traditionalism because schooling affects "all sorts of attitudinal phenomena, including people's degree of gender traditionalism" (Polavieja 2015: 175). Persistence of significant native-foreign differentials in occupational status despite controlling for human capital suggests segmentation in the labor market (e.g., Constant/Massey 2005; Kalter/Granato 2007; Kogan 2010). Given that the IAB-SOEP Migration Sample 2013 only canvasses immigrants' cases, the most similar area of origin to Germany, Western Europe, is employed as control group. E.g., in case of high-educated married women, being denied to enter into the primary labor market could be the main cause for not working at all due to opportunity costs or aspects external to this research such as agent's perception of self-identity.

From a cultural approach, as indicated by Guetto et al. (2015), Inglehart and Norris (2003) and Polavieja (2015), a possible measurement of gender attitudes is religion. Firstly, all Abrahamic religions support the patriarchate in several grades (Polavieja 2015). For example, Catholic, Evangelic, and Muslim fundamentalist have often attempted to re-institutionalize the subordinate role of women by regulating marriage and divorce, abortion, family, and childcare policy (Inglehart/Norris 2003). Secondly, religiosity levels correspond with possessing traditional gender orientations (Guetto/Luijkx/Scherer 2015; Polavieja 2015). Hence, religion may affect the attitudes and practices towards work division. Nonetheless, it is worth mentioning that due to individualization processes experienced firstly by postindustrial societies, Church's authority has been weakened. This fact may cause a lower correlation between religion and traditional gender roles among people with religious affiliation there. As a matter of globalization, religious heritage's importance might also have diminished worldwide varying from one society to another, with some exceptions. One of the most relevant exemption is the Islamic community, whose pervasive values constitute one of the most rigid barriers to gender equality (Inglehart/Norris 2003: 49). The hypotheses from cultural, human capital, and segmentation perspectives can be seen in the following table 1.

Table 1
Hypotheses

Theory	Code	Hypothesis
Human capital	1a	The higher the investments in education, the higher the probabilities to be employed.
	1b	The higher the investments in education, the more the working hours.
	2	The more experience about Germany, the higher the probabilities to participate in the labor market.
	3	The healthier the individual, the higher the chances to be employed.
	4a	Following household's decisions, married women tend to participate less in the labor force.
	4b	Married women tend to participate fewer hours in the labor force.
	4c	Mothers of children under the age of 17 tend to participate less in the labor force, particularly during early motherhood.
	4d	Mothers of children under the age of 17 tend to work fewer hours, particularly during early motherhood.
	5a	The higher the language skills, the higher the probability to be employed.
	5b	The higher the language skills, the more the working hours.
	6a	To be a second or third generation migrant raises the chances of participating in the labor market.
	6b	Immigrants who moved for economic reasons are expected to be more favorably selected participating more in the labor market than other migrants.
	6c	Immigrants who arrived as refugees are less likely to be employed than other migrants.
HC and SLM	7	Qualifications obtained in less similar countries of origin are less acknowledged than those attained in more similar countries, increasing less the labor participation than those.
Segmented labor market	8	As symbol of acknowledgment of qualifications, the perception that the job corresponds with past training is related to more working hours.
	9	Higher education increases more the probability of working of Western Europeans than others with similar education.
Gender attitudes	10a	The Muslim religion has the highest negative effect on labor participation status.
	10b	The Christian religion has the second highest negative effect on labor participation status.
	11a	The religiosity level has an opposite effect on the labor-force participation status.
	11b	The religiosity level has an adverse effect on the working hours.

Source: Own formulation.

6 Data, variables, and methods

6.1 Dataset

The IAB-SOEP Migration Sample 2013 cross-sectional data was chosen as the source for this research due to its more extensive covering of cases and the broader inclusion of new immigrants as well as of migration and integration specific indicators in comparison to other possible datasets (e.g., SOEP, Microcensus). For example, while 2012 SOEP survey contains the cases of 1,945 immigrants, the first wave of the IAB-SOEP Migration Sample undertaken in 2013 canvassed through direct interviews 4,964 individuals in 2,723 households. This survey was also carried out on a second wave in 2014, covering 3,752 persons in 1,974 homes (Brücker et al. 2014). Since the second wave contains considerably fewer cases than the first one and, therefore, may generate less significant statistical results, 2013 sample suits this research better.

The IAB-SOEP Migration Sample is a new instrument to gather annual information about immigrants in Germany. It was designed by the Institute for Employment Research (IAB) in Nuremberg and the German Socio-Economic Panel (SOEP) at DIW²⁴ Berlin. The sample has been drawn by linking survey and administrative register data from the Integrated Employment Biographies (IEB²⁵) provided by the IAB, which function as the sampling frame. In the first place, by proceeding with a multiple-step approach, this survey allowed an equal-odd aleatory selection of targeted respondents with migration background. In the second place, however, nationals from the EU new member States and Southern European countries were given more probabilities of eligibility (ibid.).

The dataset includes information about several topics: migration history (year of migration, migratory process, information methods and social networks), education history (highest educational level attained, years of schooling, education acquired in Germany and abroad, recognition of qualifications and language abilities), employment history ((un)employment in Germany and abroad), labor market background (earnings, full- and part-time employment, working hours, benefit assistance, reservation wage and participation in labor market policies), return migration (intentions and history), religion, perceptions of life satisfaction, discrimination, and social integration (ibid.).

Delimitation of sample cases

Of the 4,964 cases contained in the IAB-SOEP Migration Sample 2013, 2,319 cases constitute valid cases for this research. 2,589 respondents are females (approx. 52% of the total sample) between 17 and 95 years old with a mean age of 38. The working-age population refers to people aged 15 to 64 (OECD 2017a). However, given the

²⁴ DIW, orig.: Deutsches Institut für Wirtschaftsforschung, translated German Institute of Economic Research.

²⁵ IEB, orig.: Integrierte Erwerbsbiografien.

tendency of women above 60 to retire from work, only those between 17 and 60 years old were included in this research in order to avoid possible bias caused by pensioners' cases. In addition, persons without work permits such as deported or suspended refugees, as well as individuals staying with tourist visas or illegally, were also excluded from this paper's sample. Moreover, full-time students are investing in their human capital with the purpose of increasing it and work at the end of the learning period, with their labor participation being fluctuating and intermittent (Mincer 1974: 125). If at the point of surveying, students would not work at least one hour per week, they would be considered as non-working women. Therefore, there was doubt about whether including these cases due to their direct influence upon the relationship between education and labor participation, which is theoretically assumed to be positive. Because of their exceptional character and considering the number of this kind of cases (121), I decided to exclude them. By evaluating the responses of 2,319 individuals, this paper's hypotheses will be tested regarding the dependent and independent variables delineated in the following subchapter.

6.2 Variables

6.2.1 Dependent variables

Labor-force participation is defined in this paper as the dependent variable. As said in chapter two, it evokes the economic activity in exchange for rewards which, following Polavieja's research (2015), implies a *de facto* character. Other possible elements very related to labor activity such as earnings, job quality or prestige (e.g., Constant and Massey 2005) are excluded from this conceptualization and, thus, from its measurement.

The dependent variable lies on the employment rate's definition of the OECD (2017a): the share of people of working-age in employment, working-age being the 15 to 64 bracket. On the one hand, employed are those working-age individuals who at least worked gainfully one hour in the previous week or had a job but were absent. Employed are employees, self-employed or part of a family firm. On the other hand, unemployment consists of persons out of labor whether seeking for work or not such as housewives, retirees, etc.

Labor-force participation is analyzed two-ways: firstly, as a dichotomous variable claiming the values of 0=no (out of the labor force), and of 1=yes (working); and, secondly, as a continuous variable counting the number of hours worked. *Labor participation status* is developed from survey's question number 102: Employment status. Value zero contains not employed persons, voluntaries on an ecological year, military or federal service, and individuals in partial retirement with zero working hours. Value one is constituted by employed full-time, part-time, and marginally, as well as by those persons who are absolving vocational training. It is worth noting that this categorization not only follows OECD's definition, it also corresponds with the rubric 'economically active' of the IAB-SOEP Migration Sample's flowcharts (Erhardt 2015). This

means that uncertain information such as whether vocational training involves necessarily hours worked or may refer only to schooling time is cleared by survey's scholars (yes, in this case, it always involves paid labor).

Labor participation hours could have been defined regarding question 118 or 119. These questions asked respectively about contractual and actual working hours per week. Contractual hours were chosen as the indicator due to its higher reporting precision. In perceived working hours' question, some respondents pointed out extremely extended times which not just go beyond regulations in Germany but also credibility (the maximum was 90 weekly hours which would represent two full-time jobs). Working hours are measured, hence, by using question 118 taking the values between 2 and 50. In order to facilitate interpretation, working hours are additionally categorized in low, medium and high labor participation level (respectively 2-10; 11-30 and 31-50 hours).

In the sample, 63 percent of women participate in the labor market, which is quite lower than the employment quota of migrant women in 2013 (69%) according to Höhne (2016), but much higher than the employment rate provided by the Microcensus 2012 (43%). The most of them work part-time, with the average being 28 working hours. For further information about variables labor participation status and working hours, see tables 5-7 in the appendix, which contain descriptions of all variables and specific frequencies. In the next section, I present the factors that may influence the labor participation of immigrant women in Germany, according to the literature reviewed and available data.

6.2.2 Independent variables

The independent variables that may affect the labor participation are ordered by certain 'belonging' to the individual, structural, or cultural sphere. I.e., the effects of one's characteristics or agency, systematical arrangements generated by the regulatory apparatus, institutions, and firms, as well as ethos brought, are estimated organized in those levels.

Individual level

Proxys for individual traits are defined mainly corresponding to human capital theory. First of all, education constitutes one of the most multifaceted in immigrants' research due to distinct school systems around the world. Assuming that there is a positive relationship between education and labor participation (Mincer 1974) but also taking into account the relevance of comparing education attained abroad and domestically (Friedberg 2000), education is measured in two stages: schooling and further education.

On the one hand, *school completion* lies on questions 71 and 74. On the one hand, individuals who arrived in Germany after school age were asked about the number of years of schooling. On the other hand, education gathered in Germany was not measured in years but according to obtained school leaving-certificates. To compare the

effects of foreign and German education, consolidating these variables is required. Given that transforming the German certificates in years of schooling allows no such comparison, besides probably yielding inaccurate data, the reported years of schooling abroad were converted into two categories: 10 or fewer years and 11 or more years. Education attained in Germany refers to classes still at school, secondary or less, middle/technical/others, and upper secondary or “Abitur” (e.g., Constant/Massey’s 2005).

On the other hand, *further education* is measured regarding vocational training and tertiary education following two criteria. First, assuming that qualifications attained in the host country are better rated than those achieved before migration (Chiswick/Miller 1992; Friedberg 2000) and suppose incrementing individual’s human capital, further education attained both in the country of origin and Germany is classified only as education gained in the latter. The second criterion implies that exclusively the highest education level is considered despite individuals having reported more than one completed educational training.²⁶

Experience²⁷ is measured firstly through variable *age* regarding questionnaire’s first question. Age represents a demographic characteristic that captures cultural differentiation across time (Polavieja 2015: 175). Secondly, experience concerning the system and features of the Germany’s labor market is measured through variable *years since migration* to Germany (e.g., Chiswick/Miller 1992; Constant/Massey 2005; Kogan 2010; van Tubergen et al. 2004). Predictor years since migration was calculated by subtracting the year of arrival in Germany from the year of the survey on the basis of questions 16 and 24.

Language ability is measured according to self-perceived German language speaking skills on the basis of question 40, which reads as follows: “How well do you know German now?” Answers are grouped in the next categories: very good, good, fairly, poorly or not at all, and no answer. Although it could be expected that second and third generation immigrants have as first language German, self-categorization as very good or good German speakers is not implicated.

Migration motivation, which is relevant to human capital’s transferability (Chiswick/Miller 1992), refers to the individual’s migration motive or status as she/he arrived in Germany. This predictor lies in questions 18 and 25 “How did you move to Germany?” which are split up into six categories. Those are: moved to Germany as an economic

²⁶ Categories contain alternatives of question 81 and 83 respectively listed as follows. German tertiary education: technical college, university, doctoral studies, and other degree; German vocational training: apprenticeship, specialized vocational/technical school, and civil servants’ school; foreign tertiary education: university/college with practical or theoretical orientation, and doctoral studies; foreign vocational training: apprenticeship or training in a company, vocational school, and others.

²⁷ Questions to working years both abroad and in Germany, which could have constituted interesting variables, were unfortunately not included in the questionnaire.

migrant, spouse or child (tied-mover), refugee, ethnic German (“Aussiedler”), and other, and born in Germany. Indicator economic migrant is constituted by three alternatives which refer to immigrants who arrived with an employment contract, seeking for a job or as students. Refugee regards only individuals’ status when entering Germany, not her current situation.

Health also acts as an indicator for human capital, assuming that healthier persons tend to work more than unhealthier individuals (Becker 1975). It is measured according to question 171 which asks about the perception of one’s own health. Following categories constitute the variable: healthy, satisfactorily healthy, and unhealthy.

That labor market performance follows rational choice and lies on individual skills is not the only postulation of human capital theory. Such performance also relies on marital status and presence of children: women’s human capital is also family work-division dependent (Becker 1975; Mincer/Polachek 1974; Mincer 1974). Firstly, control variable *marital status* is simplified from questionnaire question 152 as a dichotomous variable taking the values of 0=unmarried and 1=married. Because the emphasis is made on family-related gender roles within the home, married women are considered those living together with their husbands within a marriage contract, excluding separated couples. Among the unmarried, not only singles are included, but also widowed, separated, and divorced women, as well as four cases reporting been in a registered same-sex partnership. Secondly, presence of children is broken into two stages. Due to the more intensive care and attention necessity in early childhood, binary proxy *children under six years old* has been defined. This regressand does not allow comparing effects of having one young child or more young children, as suggested by Wooldridge (2002: 456). However, the number of women having more than one younger child is minimal and, thus, not significant for the analysis. Alongside that, discrete variable *number of children between 6 and 17 years old* (e.g. Kogan 2010: 99) constitutes the second stage of presence of children. These control variables are based on questions 63 and 64 of the household questionnaire, unlike the other variables, which stem from the personal, biographical one.

Structural level

As suggested by much of the presented literature, the country of origin has a major influence on migrant women’s labor participation. Explanations for that are provided by factors such as similarities or disparities with the destination country in socioeconomic and employment structures (Friedberg 2000), ethnic capital (Borjas 1992), schooling, language and ethos (Chiswick/Miller 1992), traditionalism regarding gender roles (Polavieja 2015), religiosity (Guetto/Luijkx/Scherer 2015), discrimination (Höhne 2016), and ethnic segmentation (Constant/ Massey 2005, Kogan 2010). Moreover, the labor activity in the origin country is correlated with the labor activity post-migration (van Tubergen et al. 2004; Frank/Hou 2015) and that of immigrants’ children (Fernández/Fogli 2009). Those results give insight into the accuracy of categorizing individuals’ origin for the analysis of their labor-force participation in Germany.

Following similarity criteria regarding economic development, employment structure and culture (Borjas 1992; Friedberg 2000) on the basis of the reviewed studies, immigrants are classified according to the availability of cases by country of birth specified in question 2 into seven areas of origin. The first one is formed by second or third generation migrants; i.e., persons with a migration background who were born in Germany. Due to the limited number of sample cases, no further division by origin could be drawn within this group. Second category Western Europe is not defined by geographical location, but instead by its relative similarity to Germany regarding political, socioeconomic and cultural principles (e.g., Kogan 2010). Classic Western European nations were part of the West during the Cold War except for East Germany. Most of them are Welfare States belonging to the EU-15 (Esping-Andersen 1990)²⁸. Following Friedberg (2000) and Kogan (2010), two additional categories are constituted by Eastern Europe and the ex-Soviet Union. Eastern Europe is represented by ex-communist European countries including the ex-Yugoslavia. As standard in migration research in Germany, Ethnic Germans, mostly stemming from the former Soviet Union and Eastern European countries, shape a separate group due to their distinct legal status regarding their German ancestry (e.g., Kalter/Granato 2007; Kogan 2010). Moreover, the high immigration to Germany from Turkey since the postwar period and from Arab and Northern African countries last years is a fact. These regions are characterized by the predominance of the Muslim religion and the lower labor participation rates among women (Inglehart/Norris 2003). Given that, they constitute Northern Africa and Middle-East category. Due to the reduced number of cases and, thus, statistical significance, the rest of sample's countries of origin are grouped in others. Table 8 (in the appendix) presents the breakdown of foreigners into these seven groups as well as their frequencies.

By using area of origin, I attempt to estimate the structural effect of ancestry on the labor participation. I.e., whether it is there ethnic stratification concerning group human capital – or in words of Borjas (1992) ethnic capital – and labor market's treatment regarding immigrant's origin. As Czymara and Schmidt-Catran (2016: 198) explain, since country of origin is the most employed indicator for cultural distance, origin is useful to analyze foreigners' acceptance from the sight of employers. Nevertheless, the region of origin represents not only a symbol to measure the structural effects of belonging to a particular group; it concentrates cultural aspects of the country of ancestry as well. This ambiguity means that differentiating between structural features and constraints and cultural background regarding variable area of origin is difficult, then constituting a limitation. Despite that, this predictor will be further considered as part of the structural level to maintain a conceptual scheme.

²⁸ Esping-Andersen did not include late democratizing Portugal, Spain and Greece into his classification of Welfare States. These countries entered to the European Union in the 1980s, however.

Acknowledgment of qualifications works as a proxy for measuring institutional validation of skills. According to Chiswick and Miller (1992) and Friedberg (2000), human capital skills are rather acknowledged in case that these were attained in similar or developed countries. Furthermore, systematical non-recognition of qualifications may be a sign of labor market segmentation, as is suggested to be the case of some ethnic groups coming from Eastern Europe, Africa, and the Middle-East (Kogan 2010). Some respondents indicated having received a certificate of educational completion abroad and applied for its recognition in questions 85 and 89. Those whose application was positive are represented by value one of dummy variable *recognition of qualifications*. Moreover, an alternative form to estimate the recognition of skills consists in evaluating the opinion of respondents about the correspondence of their human capital and the training required in their work positions. The perception of such concordance in the actual employment was asked in question 105.

Feels disadvantaged acts as control variable indicating somewhat experience of discrimination. It has been derived from question 47: “How often have you personally felt disadvantaged in Germany because of your country of origin?” This variable concentrates in value one the answers frequently and seldom, while zero contains response never and persons who were not asked this question or no answer.

Cultural level

Religion has been chosen as indicator to estimate gender attitudes towards work division. Nevertheless, some issues have been found in this respect. Firstly, as explained in last chapter, individualization processes presuppose that the relationship between religion and traditionalism regarding gender roles has weakened in many cultures. Secondly, analog to area of origin, religion concentrates both the cultural effects and the labor market’s acceptance or rejection towards belonging to a religious community. E.g., Islamic faith is related to housewifery (Inglehart/Norris 2003), while Muslims constitute the less welcome religious population in Germany (Czyrara/Schmidt-Catran 2016). Therefore, both religiosity sides may affect women’s labor participation to some extent, but this extent cannot be differentiated. Thirdly, very religious women could participate in the labor force despite having traditional gender role schemes because of necessity, self-introspection (Giddens 1984), or other unobservable factors.

Notwithstanding the exposed limitations, religiosity could still work as an estimator of gender attitudes, as concluded by scholars (Guetto et al. 2015; Inglehart/Norris 2003; Polavieja 2015). Religion is measured according to *religious denomination* (Christian, Muslim, other religion and no religious belief) and *religiosity level*, which is calculated regarding the frequency of praying. For these variables, questions 184 and 188 are employed.

Some of the dataset variables contained non-response values. These are not defined as missing values to maintain the number of cases and, thereby, promote models’

statistical significance. When not affecting the meaning of a category, they were explicitly included in a value. For example, “no answers” in variable origin were incorporated into “others”. Otherwise, non-response shapes another category under the rubric “no answer”.

6.3 Analysis methods

The analysis will be carried out within multiple linear regression techniques. Firstly, dichotomous variable labor participation status is analyzed by performing linear probability models (LPM), which are linear regressions applied with binary explained variables (Mood 2010). Several sequential LPM predict the average probabilities of an immigrant woman to be employed. Secondly, the multiple linear regression is once again applied to assess the effects of the explanatory variables on the numerical variable labor participation hours.

Linear regression has been chosen as primary method in this paper because it enables a comprehensible analysis, as well as the comparison of variables' effects across models when introducing new variables, according to contemporary literature. LPM represents no typical method in sociological research in case of binary explained variables, however. Instead, logistic regression is commonly used. For years, a usual practice among social researchers has consisted in comparing log-odds ratios or odds ratios of different models within or across samples, groups, and categories such as gender and ethnicity. Nonetheless, in several studies, little attention has been paid to the significant issues emerging from that contrast. Given the nonlinearity of Logit in modeling the chances that unknown variable $Y=1$, adding a new independent variable into the scenario implies that not only interaction effects may appear, but also that unobservable heterogeneity varies affecting the whole model (Best/Wolf 2012; Mood 2010). Unobserved heterogeneity refers to the variation in the dependent variable as a consequence of unobserved variables (Mood 2010). E.g., the effect of variable X_1 over the probability of an event varies when including X_2 to the equation, even if they are not correlated, due to the transformation of the unobservable heterogeneity, tied to X_1 and X_2 's magnitudes. Explanatory values in logistic regression are not autonomous from model changes, as is the case of linear regression (Kopp/Lois 2014: 182). If given, interaction effects alter further the effect of variable X_1 , but cannot be estimated. Additionally, since changes in coefficients among models within a sample may also depend on the unobserved heterogeneity of each one of them, such comparison is likewise problematic. The capability of drawing conclusions about coefficients' fluctuations being undermined, the interpretation of the model, thus, becomes uncertain (Mood 2010). As a general consequence of that, comparing log-odds ratios and odds ratios across models, samples or groups within the data is not adequate (Allison 1999, as cited in *ibid.*). Furthermore, odds ratios effects, as well as their logarithmic version, are difficult to understand, with nearly only sign and significance being substantively interpretable (Best and Wolf 2012: 380; Mood 2010). Interactions, additionally, could change coefficients' signs and lose significance due to Logit model's nonlinearity and non-additivity (Kopp/Lois 2014: 183).

Interpretability is more viable with predictors referring to probabilities such as marginal effects (MFX), average marginal effects (AME) and LPM (Mood 2010). MFX enable an estimation of the likelihood of $Y=1$ upon variation in the independent variable but capture nonlinearity only if calculated at several distribution places. Moreover, their coefficients may be very different depending on the values of the explanatory and conditioning variables (ibid: 78). Besides that, MFX follow a similar logic as log-odds ratios and odds ratios when adding new variables into the model because they “are conditional on specific values of the observed variables” (Mood: 76). This means, neither can they be used to undertake comparisons between models or groups.

Not without some limitations, Logit model's AME and the LPM represent alternatives to contrast results across models or groups because they are not affected or affected only marginally by unobservable heterogeneity unrelated to the independent variables in the model (Best/Wolf 2012; Mood 2010). AME are population-averaged and estimate the conditional effects' average of the independent variables over the probability of event occurrence. Unlike linear regression, logistic regression uses a nonlinear link function which captures nonlinear variation; AME lack this characteristic, however (ibid.). An LPM is an ordinary least squares regression with a dichotomous predicted variable (Best/Wolf 2012: 388). It is called “linear probability model” due to the linearity of the response probability in the parameters (Wooldridge 2012: 249). It delivers results similar to AME. According to the Monte-Carlo simulations of Best/Wolf (2012), if variables are normally distributed, both AME and LPM coefficients are adequate in case of gradually including new unrelated independent variables into the model. If they are not normally distributed, AME yield quite lower results when R-squared is higher, while an LPM generates ‘quality’ results. In case of related regressors, both methods are suitable if those follow a normal distribution, while, if they do not, LPM should yield more biased results. Overall, both of them have specific issues.

Some scholars recommend rather employing LPM in evaluating a binary dependent variable (e.g., Mood 2010; Wooldridge 2002), albeit the following four issues. First, the predicted effects could be less than zero and greater than 1, which represents the most critical argument against applying linear regression for binary response, according to Kopp and Lois (2014: 164). Nevertheless, predicting unrealistic coefficients may also happen when having metric explained variables (Long 1997, as cited in Mood 2010: 78). Hence, this constitutes a problem only if many effects are less than zero or more than one. Second, heteroskedasticity of residues is present, thus misleading results (Kopp/Lois 2014; Mood 2010). A technique to deal with that problem consists in using heteroskedasticity-robust standard errors and t statistics, nonetheless (Wooldridge 2002: 454). Third, dichotomous response variables may be linked nonlinearly with predictors, perhaps altering regression outcomes at the distribution extremes to some extent. Nevertheless, as explained by Mood, “as long as the misspecification of functional form does not alter (more than marginally) the substantive conclusions that are relevant to the questions asked, it is reasonable to choose LPM over logistic regression” (2010: 79). Fourth, given that the parameters of the multiple regression are linear, it may estimate associations which are apparently linear also

when they are not. However, the model allows for some possibilities in case of particular nonlinear relationships (Wooldridge 2012: 44), which suggests that the researcher should become proficient in identifying them.

Even with the mentioned weaknesses, the LPM offers consistent estimates of the average effects on the underlying response probabilities of success (ibid; Wooldridge 2002: 455). It should be interpreted carefully, considering the mentioned limitations. Either way, as summarizes Mood (2010), there is no ‘all-purpose’ method, which, e.g., simultaneously captures nonlinearity, allows comparisons between groups and models, and points out conditional effects. Due to the central interests of this paper, which involve the comparison of effects across models, the linear regression for binary response constitutes the most convenient analytic method. Its estimated values approximate the response probability, while the average marginal effect represents another more complicated approximation to the same (ibid.).

Therefore, the OLS regression is applied in the analysis of both labor-force participation status and labor participation hours (for brevity, LFP status and LFP hours). Given that the second examined variable LFP hours is based on the values taken by LFP status, with the former being always zero when the latter is zero, independent variables’ effects on Y could yield inconsistent results. OLS estimates using truncated data violate multiple regression’s assumptions (Cameron/Trivedi 2005: 546). In order to avoid bivariate sample selectivity or so-called type 2 Tobit (Amemiya 1985: 384; as cited in ibid.), only working women are considered in the models having explained LFP hours.

Moreover, in case of that predicted variable, the estimated values represent the standard in linear regression. I.e., a one-unit turn in Y when X increases by one unit, while other factors are held steady (see next equation). Following Wooldridge (2012: 248), in case of dichotomous, qualitative event LFP status, in a multiple regression model²⁹ such as

$$Y = \beta_0 + \beta_1 X_1 + \dots + \beta_k X_k + u \quad (1)$$

Y represents only two values. Because the dependent variable’s values are either zero or one, the value taken on by each β constitutes the likelihood that $Y = 1$ occurs when the respective X increases by one unit. The coefficients of the LPM can, thus, be interpreted as the response probability when X changes, *ceteris paribus*. Predicted values consist, thereby, in the probability of event’s success (ibid: 249).

The multiple regression enables the analysis of each independent variable’s effect while controlling for many aspects which simultaneously influence the explained variable (ibid: 68). It is likely that some of those explanatory variables are correlated. In

²⁹ u represents the above mentioned unobserved factors.

this paper, very collinear independent variables such as those using very similar data are not included in the same regression model (ibid: 85).³⁰ Nevertheless, some slight correlations within one are standard; multicollinearity violates none of the model's principles (ibid: 95). However, because endogeneity may lead to uncertainty when studying a social phenomenon, as pointed out in chapter two, it cannot be wrong to identify relationships between explanatory variables, at least to some extent. Then, in an attempt to address this, I a) use sequential models and b) also evaluate particular interaction effects.

a) In sequential or “cumulative” regression analysis, all X are added into the model gradually, not simultaneously. The primary advantage of using this technique is that the dependence of the effect of one explanatory variable on another can be visualized, allowing for distinguishing stable and unstable estimates (Urban/Mayerl 2011: 312). The independent variables are displayed in descending theoretical-importance order; i.e., in declining significance regarding this paper's hypotheses (ibid: 313). This means, groups of variables defined as individual, structural, or cultural, are sequentially included, as extensively specified in chapter eight.

A coefficient β (in equation 1) reflects the effect of the explanatory variable on the regressand at various levels of the other independent variables (Jaccard/Wan/Turrisi 1990: 469). If a predictor's effect changes when introducing other variables into the linear model, those variables are somehow correlated, or one conditions the impact of the other (Kopp/Lois 2014: 182). At this stage, given that the estimation of interaction effects and “multi-group” analysis goes beyond the scope of this paper, neither moderation nor mediation relationships can be properly determined. However, a mediator effect could be *suggested*, if the direct effect between X and Y is intervened or interrupted by a third one, which should be theoretically justified (Urban/Mayerl 2011: 307). For example, when the estimate of X_1 falls when introducing X_2 , this is an empirical signal that X_2 partially mediates the effect of X_1 . In the case that the effect of X_1 becomes insignificant, then disappearing, X_2 totally mediates its influence. Suppression can similarly be suggested when the coefficient of X_1 increases as X_2 is taken into account (ibid.; Kopp/Lois 2014: 140).

b) The coefficients of particular interacting variables on LFP status or LFP hours are evaluated separately, given that the inclusion of several interaction effects in one regression model is not recommendable (Kopp/Lois 2014: 156). Interaction effects calculate the different effects of X_1 regarding X_2 's categories. In an equation such as

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_1 X_2 + u \quad (2)$$

the influence of multiplied X_1 and X_2 on Y , along with X_1 and X_2 main effects, are estimated (ibid: 154; Jaccard et al. 1990: 469). These results are interpreted following

³⁰ E.g., variables migration motivation and area of origin have categories “ethnic German” and “born in Germany” referring to the same data.

the moderation technique. Moderator (X_2) effect's magnitude, sign, and significance can be identified within this analysis. The central purpose of this procedure is to examine if the effects of X_1 significantly differ among X_2 's categories; i.e., whether X_2 has an actual impact on X_1 coefficient, conditioning it (Urban/Mayerl 2011: 296).

While in equation 1 all other effects are held constant, when estimating the interaction effects of X_1 and X_2 , their coefficients represent conditional associations (see equation 2). This supposes that the main effect of $X_1 = 1$ refers to the case that $X_2 = 0$, whereas β_2 implies that X_1 equals zero. Alongside that, β_3 reflects "an interaction effect in that it estimates the change in the slope of Y on X_1 given a one unit change in X_2 (or, alternatively, the change in the slope of Y on X_2 given a one unit change in X_1 , depending on how one conceptualizes the interaction)" (Jaccard et al. 1990: 469). For example, if with dummy $X_2 = 1$, representing a specific group, the coefficient of categorical variable $X_1 = 2$ significantly becomes stronger or weaker than the main effect of $X_1 = 2$ (which refers to $X_2 = 0$), the former moderates the effect of the latter (Kopp/Lois 2014: 156). The interpretation should be supported by a strong theory, which suggests reasons for effects' transformation (Jaccard et al. 1990: 476).

The regression tables to be presented contain crucial elements, as suggested by Wooldridge (2012: 155); i.e., the R-squared, the number of observations, evidently the OLS coefficients³¹, and the robust standard errors or t statistics. According to this author, there is a particular advantage in presenting standard errors given that they force the researcher to analyze the null hypothesis cautiously. Due to this advantage, standard errors and not t statistics are reported. As standard, I also include constants and p-values measuring whether coefficients are statistically significant. Estimations are made by using STATA version 14.2. Regressions' outputs will be interpreted with the support of the descriptive results available in the subsequent chapter.

7 Descriptive results

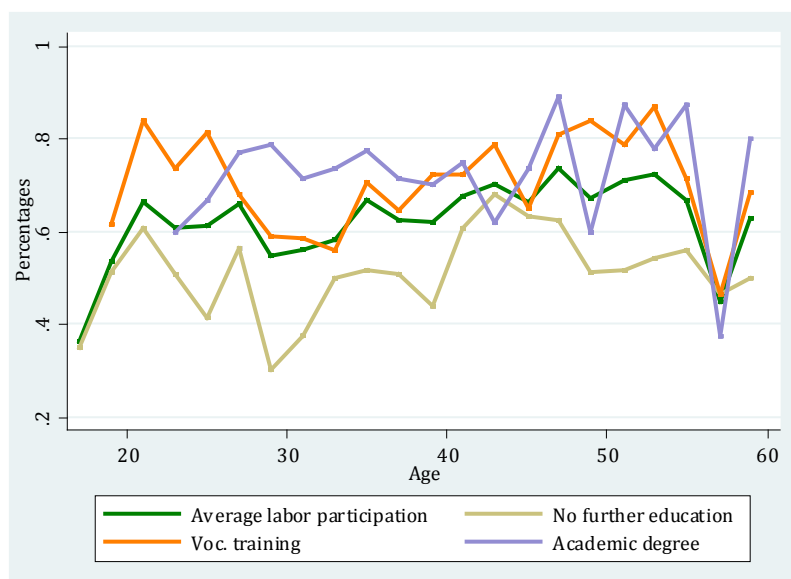
This chapter shows descriptive statistics of importance based on the 2013 IAB-SOEP Migration Sample, some of which are graphically shown for evaluation purposes. Firstly, I present descriptive findings of migrant women's labor participation in Germany regarding human capital, demographic characteristics, and origin. Secondly, I introduce relevant associations between explanatory variables, addressing endogeneity.

³¹ Following the suggestion of Jaccard et al. (1990: 474), because of this paper's aim to evaluate causality, unstandardized coefficients are preferred due to their causal invariance.

7.1 Descriptive findings concerning predicted variables

Graphic 2

Labor participation status of migrant women by age and education



Source: IAB-SOEP Migration Sample (2013), own depiction.

Graphic 2 shows the average labor participation of women aged 17 to 60 years old according to their post-school educational attainment, gathered either domestically or abroad. Vocational training and academic degree's curves begin respectively at the age of 19 and 23 because these represent the youngest ages where women culminate further qualification within the sample. The economic activity of the less educated and those with university degrees or vocational training certificates differs considerably among all ages. None further education³² is related to participating less in the labor market, with employment rates between roughly 26 percent and 68 percent. In contrast, women with professional training certificates start in their twenties with very high labor participation rates, which gradually decrease by about 20 percent as they approach their thirties. This represents a typical trait regarding age shared with the less educated, who also reduce their economic participation since their mid-twenties. As explains the European Economic and Social Commission (2006), early motherhood's employment withdrawal is more usual among less qualified women. In their mid-thirties, women without further education and with vocational training begin slightly to increase their labor participation, which is probably related to children's obligatory schooling. In contrast, academic women enter the labor market later but keep high labor participation rates for more extended periods; "those with a degree are more likely to only take maternity leave and pay for their child to be looked after by someone else" (ibid: 97). Moreover, it appears that women reduce their labor market activity dramatically when nearing retirement age and increase it again when reaching the

³² Given that non-working students were excluded from this paper's sample, only 6% of this category is formed by individuals who still study, but they are economically active.

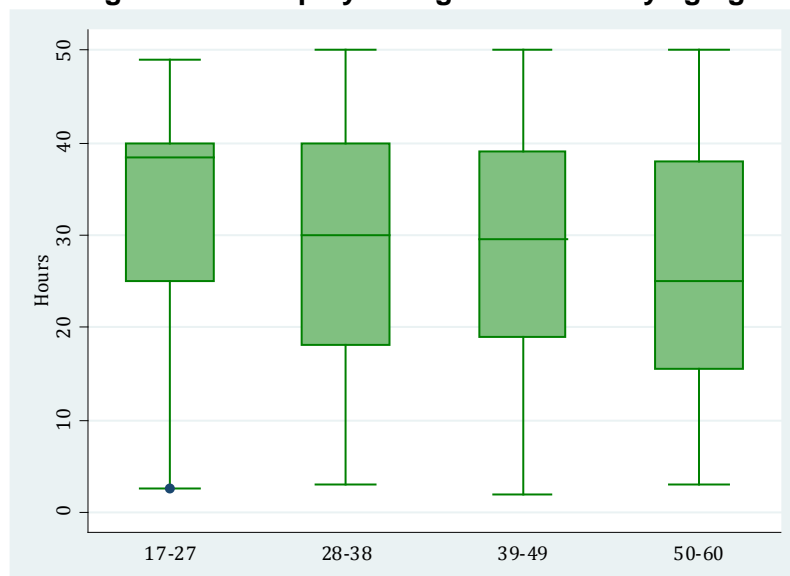
age of 59. Nevertheless, one must be cautious interpreting this result considering the small number of cases of these ages (see table 9 in appendix).

In accordance with the reviewed literature (Kogan 2010: 99), younger migrant women are better educated than the elderly. This paper's sample suggests such findings first since the age of 28, however. Younger women (17-27 years old) have the largest proportions of none further educational completion, which cannot be extensively explained by the individuals who still are at vocational training schools or universities (only 6%). Another feature is shaped by the fact that older women mostly reached further educational attainments abroad, while women under 38 years old were more usually educated in Germany (see table 10 in appendix).

Graphic 3 presents the distribution of working hours by age-group among the economically active women, who are in total 1,456 persons³³ (63% of the sample). The highest average labor participation hours is represented by the younger females, who generally work at a high level (defined as over 30 hours per week). This result could be attributed to the tendency among women to work intensively until having offspring. During early motherhood, not only unemployment but also part-time labor participation are typical phenomena, which extend for more prolonged periods mostly among the unskilled (EESC 2006). The ages between 28 and 38 years old represent a typical childcare period in that mothers may break from the labor market or diminish their working hours to look after their children. Part-time averages of around 30 working hours in case of women aged 39 to 49 years old might also be related to childcare and household responsibilities, probably initiated with the full-time work irruption. As exposed in the third chapter, this may constitute a sign for (re-)establishment of traditional roles. Surprisingly, the lowest working hours are found among the 50 to 60 years old, although it could have been expected that women work longer hours when having older children. Females of this age-group do tendentiously not (re)incorporate into the labor market on a full-time basis. This may be caused by several reasons, including a gendered work division within the household, or job-related difficulties experienced by women and discrimination against them when trying to return to the labor market. Unfortunately, working less than full-time for prolonged periods is related to women's higher risk of poverty and social exclusion (ibid.; EC 2015).

³³ However, only 1,282 respondents indicated their contractual working hours per week.

Graphic 3
Working hours of employed migrant women by age-group



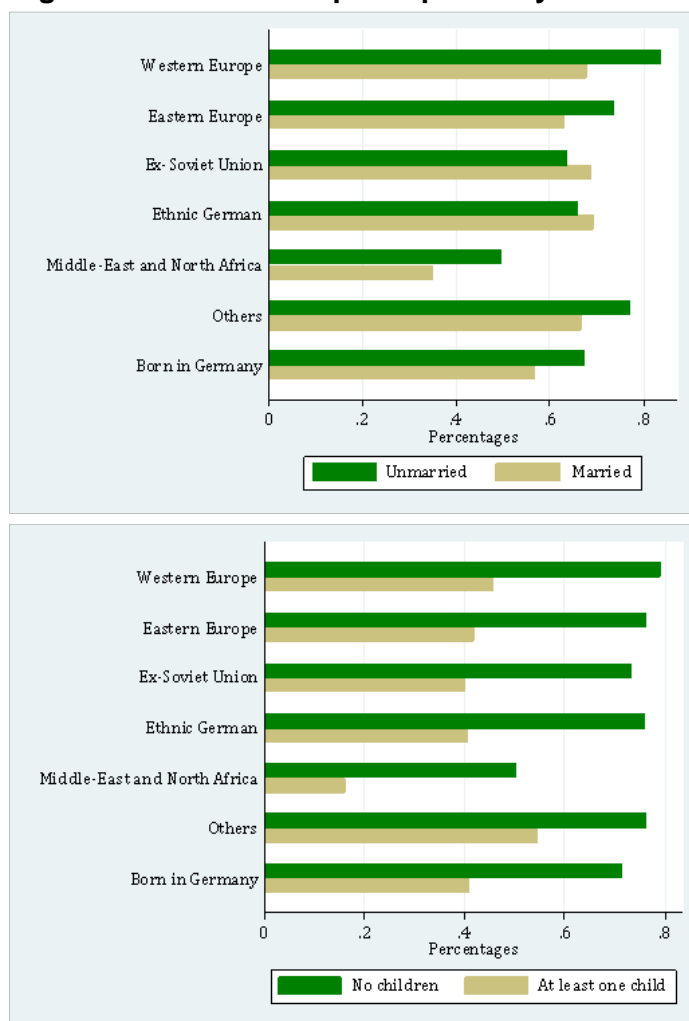
Source: IAB-SOEP Migration Sample (2013), own depiction.

As shown in chapter two by presenting Hühne's (2016) findings, the labor participation of migrant women in Germany differs significantly across certain regions of origin. In graphic 4, exhibited analogically to Hühne's one, the likelihood of participating in the labor market is displayed across the categories of area of origin. Addressing one of the topics opened in the last paragraph, included are also third variables marital status and presence of young children (defined in this thesis as children under six years old).

As demonstrated by Hühne (2016), Western Europeans have the least differences with Germans regarding labor participation, narrowly followed by Eastern European women. This paper's data indicate similar findings. Western Europeans are more likely to be employed than other migrants (the average is 73%), followed by ethnic Germans, women from the Ex-Soviet Union, and Eastern Europeans. Oddly enough, immigrants born in Germany participate averagely less in the labor market. Meanwhile, women from Arab and Northern African countries are far less likely to be economically active (39%), as also indicated by Hühne in case of Turks (see table 11 in appendix).

Graphic 4

Migrant women's labor participation by marital status/children



Source: IAB-SOEP Migration Sample (2013), own depiction.

In almost all groups of origin except the Ex-Soviet Union and the ethnic Germans, the labor participation's rate of married women is quite lower than that of unmarried women. Alongside that, when having at least one child under six years old, women are considerably less likely to be employed across all areas of origin. With a female employment rate of fewer than 50 percent defined as low (e.g., Frank/Hou 2015), small employment rates characterize the mothers of young children. Thus, children's presence appears to play a stronger role in employment than marital status. However, in the case of Middle-Eastern and Northern African women, the labor participation is low even when not being married and without young children.

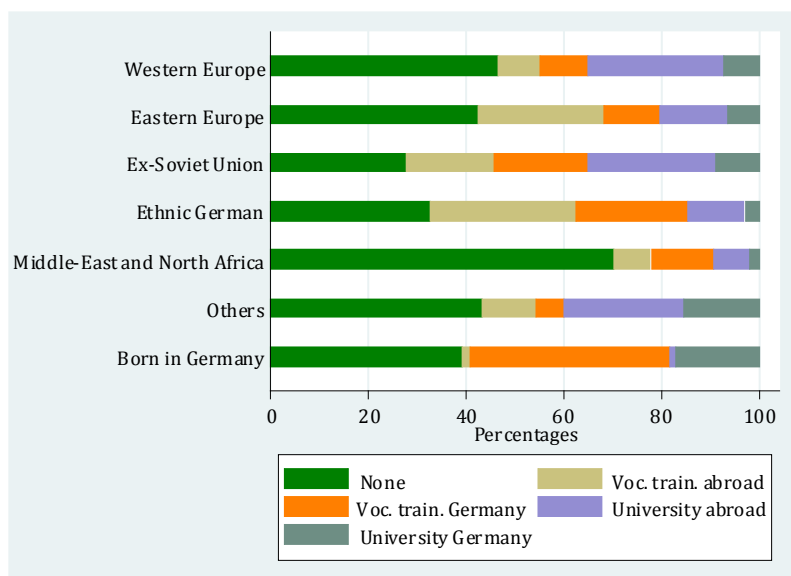
7.2 Relationships between explanatory variables

As suggested by Borjas (1987), immigrants tend to be negatively selected. This means, their human capital is reduced in comparison with the native population, which only partially explains the ethnic inequality in Germany (Kalter/Granato 2007: 272). For a general comparison, own calculations using the Microcensus 2012 indicate that 39 percent of women with German citizenship and 61 percent of non-German women aged 15 to 60 years old had no professional qualification, supporting Borjas' thesis. It

is worth noting that women with non-acknowledged skills are considered among the unskilled.

Graphic 5 illustrates the after-school educational completion of women by migration background, according to the IAB-SOEP Migration Sample 2013. Overall, 42 percent of the foreign women reported not having any further education (for details, see cross-table 12 in appendix). The least educated group of migrants in Germany is represented by women from the Middle-East and Northern Africa, who also have the minimal labor participation proportions, as said before. Roughly 70 percent of them received no further education. The next group is Western Europe with 47 percent of women without education attainment after school, followed by women born in Germany (40%) and those from Eastern Europe (42%). The most educated, regarding completing some further training, are the groups of ethnic Germans and Ex-Soviet Union (28% and 33%, respectively). Additionally, ethnic Germans, as well as second and third generation immigrants, attain more frequently vocational training than other groups. The higher educated groups – defined as those with the highest proportions of tertiary educated – are also the former Soviet Union and, as documented by Kalter and Granato in 2007, Western Europe. About 35 percent of women of those origins possess an academic degree. ‘Others’ as an area-of-origin category is not interpreted due to its reduced number of cases (83).

Graphic 5
Migrant women's further educational attainment by area-of-origin



Source: IAB-SOEP Migration Sample (2013), own depiction.

As indicated by Chiswick and Miller (1992), education is related to acquiring foreign language skills easily, whereas language proficiency may support undertaking investments in training as well. Cramer's V coefficient=0.2472 implies a slight relationship between these variables.³⁴ Table 2 gives more detailed insight into this:

Table 2
Further education and language skills, in percentages

	Poorly/not at all	Fairly	Good	Very good	No answer	Total
None	0.08	0.22	0.31	0.35	0.04	1.00
Voc. Training abroad	0.07	0.27	0.49	0.16	0.01	1.00
Voc. Training in Germany	0.00	0.02	0.21	0.63	0.15	1.00
University abroad	0.03	0.24	0.40	0.30	0.02	1.00
University in Germany	0.00	0.01	0.16	0.66	0.18	1.00
Total	0.05	0.17	0.31	0.40	0.07	1.00

Source: IAB-SOEP Migration Sample (2013), own calculations.

If one considers the first column of table 2, the less educated are indeed more likely to speak German poorly or not at all. In contrast, those who attained a certificate of academic or vocational education in Germany have, as expected, strong language skills. In case of the immigrants with abroad obtained certificates, a similar trend is

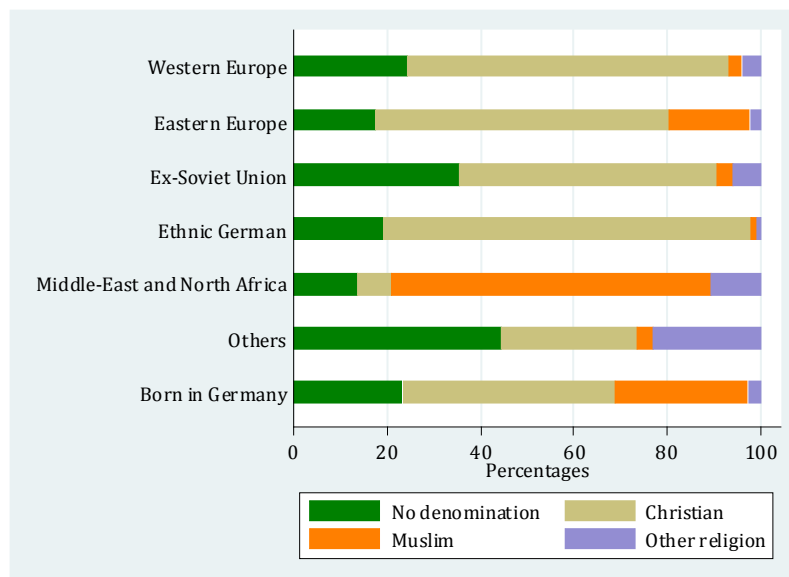
³⁴ Cramer's V is a statistical measure to estimate the association of two categorical variables. The values taken by this are between zero (no correlation at all) and 1 (fully correlated). The formula is the following:

$$C = \sqrt{\frac{1}{n} \cdot \frac{x^2}{\min\{(k-1), (m-1)\}}}, \text{ where } 0 \leq C \leq 1 \quad (\text{Bortz/Schuster 2010})$$

less pronounced. E.g., although 49 percent of women with vocational training gathered overseas speak goodly German, 34 percent of them compared to 30 percent of the less educated have none/poor and fair knowledge of German. Hence, better education means not necessarily better language proficiency; these variables are only moderately correlated.

Subsequent graphic 6 helps to identify the predominant religious affiliations of each area of origin. The illustration shows that the majority of ethnic Germans and women from Western Europe and the Ex-Soviet Union is Christian, followed by a considerable proportion of individuals without religious denomination. Among the Eastern Europeans, who represent the most numerous group within the sample, the majority is also Christian. There are additionally roughly 20 percent of women either belonging to the Islamic community or having no religious affiliation. Women stemming from Arab and African countries are substantially Muslims, as foreseeable. In case of those born in Germany, there are considerable proportions of Christians, Muslims and also persons without denomination. Categories 'others' and 'other religion' again are not very interesting due to their vagueness. Overall, area of origin and religious affiliation are substantially associated (Cramer's V coefficient=0.3537). Due to the strong predominance of either Christianity or Islam in some regions, the effects of both variables could overlap in the multiple regression models.

Graphic 5
Women's religious denomination by migration background



Source: IAB-SOEP Migration Sample (2013), own depiction.

Another interesting interaction consists in that between religious denomination and frequency of praying. To visualize the relations between those variables, cross-table 3 shows the relative spectra of each category. As expectable, persons without a specific religious denomination are less likely to pray. Meanwhile, 83 percent of Christians and 78 percent of Muslims pray. Christians concentrate more than other

persons in the middle categories monthly-less frequently and weekly, while not religious individuals and Muslims have similar proportions there. Muslims are more likely than others to pray daily. Since a trend could only be spotted in case of begging frequencies never and daily, there appears to be a slight relationship between religious affiliation and praying frequencies at the extremes (Cramer's $V=0.2186$).

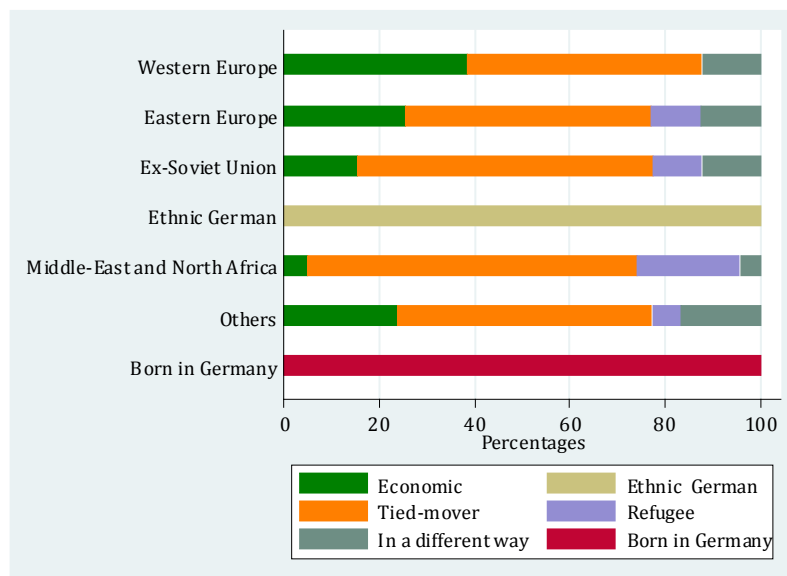
Table 3
Praying frequency and religious denomination, in percentages

	No religion	Christian	Muslim	Other religion	Total
Never	0.53	0.17	0.22	0.30	0.27
Monthly-less frequent	0.25	0.35	0.25	0.20	0.30
Weekly	0.07	0.16	0.11	0.08	0.12
Daily	0.14	0.31	0.42	0.34	0.29
No answer	0.02	0.01	0.02	0.08	0.02
Total	1.00	1.00	1.00	1.00	1.00

Source: IAB-SOEP Migration Sample (2013), own calculations.

Graphic 7 illustrates why variables area of origin and immigration path cannot be presented in the same multiple regression model. Categories ethnic German and born in Germany possess the same cases among both variables, thus causing these to be strongly correlated (Cramer's $V=0.6498$). Meaningful, however, is that the majority of women across all regions of origin migrated as spouses or children of the principal migrant, with scholars postulating that tied-movers are less likely to participate in the labor market. Furthermore, almost 40 percent of Western Europeans and 23 percent Eastern Europeans relocate for employment, which is probably associated with the free movement of labor for EU citizens within it.

Graphic 7
Women's class/motivation of migration by area-of-origin



Source: IAB-SOEP Migration Sample (2013), own depiction.

The shown descriptive results suggest that the relationships between the variables are not simple as if they were entirely unrelated. During the further analysis, the presented relationships are taken into account.

8 Analytical results

The analytical part of this paper consists of four subchapters regarding the human capital, human capital and segmented labor market, segmented labor market, and gender attitudes hypotheses exposed in chapter five, which correspond with the individual, structural, and cultural levels drawn in chapter six. The hypotheses are evaluated by analyzing mainly the multiple linear regression models shown in the appendix (Table 14 – Table 18). Supporting further this assessment, additional linear regressions with the interaction effects of specific explanatory variables are introduced in table 19 – table 22, three of which are illustrated in graphics 8 to 10, presented in this chapter.

To examine my hypotheses, ten sequential models are presented. These have become numerous given that some estimators were strongly correlated to each other, as shown in last chapter, and had, thus, to be evaluated separately. This paper's central procedure consists in starting with each one of the levels adding sequentially further independent variables. The purpose of this is to observe how the effects are altered by individual, structural, and cultural characteristics. In the first place, however, models 1 and 2 contain only human capital variables predicting the participation in the labor market. In model 1, I begin by testing basic human capital regressors for migration research, according to theory, such as education, experience, language abilities, health, and migration motivation. As demonstrated in graphic 7, the inclusion of variable migration motivation excludes the possibility of estimating the effects of area of origin in the same model. In model 2, taking into account a gender perspective, variables related to household's context are added. In the second place, model 3 analyzes the effects of area of origin, acknowledgment of qualifications, and feeling disadvantaged due to provenance. In model 4, individual-level variables except the migration motivation are included as well. In the third place, cultural variables (religion and religiosity level) are tested in model 5, while individual-level predictors are introduced in model 6. Summarizing, in model 7, all three levels excluding variable migration motivation estimate the average chance to be economically active. In the fourth place, models 8-10 have as *Y* numerical variable labor participation hours. Once again, independent variables are gradually introduced. As mentioned before, to avoid sample selection's effects, explicitly only women who work are considered in these last three models. In the eighth regression, the effects of all individual-level variables except for migration class are estimated. In models 9 and 10, respectively structural and cultural variables are added.

Besides, I evaluate four linear predictions showing particular interactions. First, model 11 analyzes especially the influence of education and presence of children on women's working hours. Second, the interaction effects of region of origin and whether skills were recognized in Germany estimate the probability of working in model 12. Third, the LPM 13 presents the interaction effects of further education and dummy variable Western Europe on the labor market integration. Fourth, model 14

estimates the effects of religion and further education on the chance of being employed.

As has been extensively explained, the method used in this paper is the linear regression model, which implies assuming that the estimated coefficients have a linear relationship with the dependent variable. However, after a preliminary evaluation of the LPM, it was found that the association between years since migration and the predicted variable labor participation status is inversely U-curved (see nonlinear modeling in table 13 in appendix). Given that, the squared version of the duration in the host country is included as well, as recommended for those cases by Kohler and Kreuter (2017: 390). Including both of them is asserted because it helps capturing the nonlinearity of the relationship in multiple linear regressions. Additionally, just to prevent misunderstanding my interpretation, in each LPM the coefficients refer to the probability change that $Y=1$ representing percentage points when multiplied by 100. This being said, the analysis begins in the next section.

8.1 Individual level

This paper's first human capital hypothesis (1a), which postulates that *the higher the investments in education, the higher the probabilities to be employed*, is only partially confirmed. While holding other effects constant, significant coefficients across the models suggest that women with higher education levels obtained abroad and in Germany have more chances to participate in the labor market than women who reached only the secondary-school level in Germany. E.g., model 1 shows that women with foreign education up to 10 years and middle or technical leaving-certificates attained in Germany are more likely to participate in the labor market than women with German secondary school by respectively 0.09 and 0.11 at the significance levels of 5 percent and 1 percent. Additionally, having over 10 years of schooling abroad or a German upper secondary school completion increases the employment probabilities by roughly 0.13 and 0.21 (significance levels of 1%). Persons who attended formal school for longer periods have generally higher chances to be economically active. The difference, however, between the longest periods of education abroad and in Germany is quite large. I.e., compared to having attended to school abroad for 11 years or more, having *Abitur* increases the chances of being employed by extra 0.08 with respect to the reference category. Plus, although middle school graduates completed their education in 9-10 years, they are similarly likely to participate in the labor market as women with 11 or more years of foreign schooling. However, when controlling for family situation in model 2, some of these coefficients vary. German middle and upper secondary school certificates fall to 0.09 and 0.17, while abroad attained schooling remain almost the same. This suggests that motherhood, which constitutes the most relevant variable added into the model, may reduce more the labor participation of women who attended middle and upper school domestically than that of women who studied abroad.

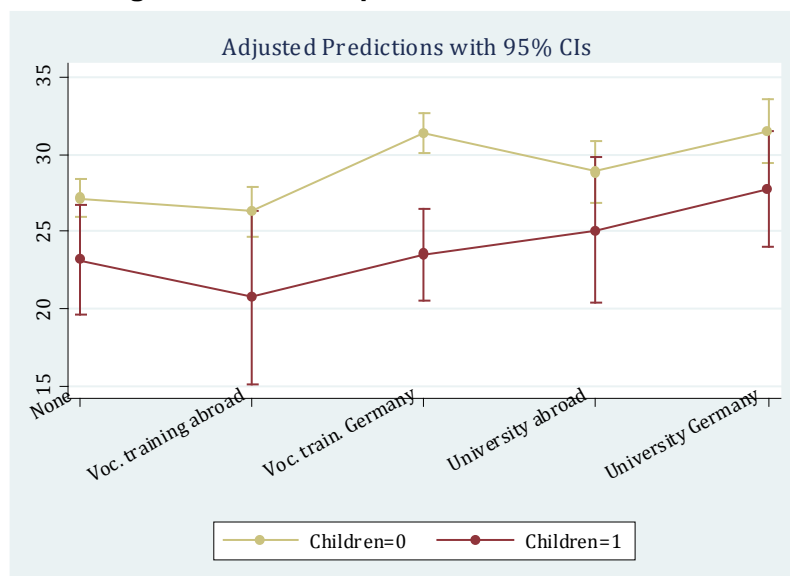
Besides, OLS coefficients regarding further educational completion also partially support hypothesis 1a. Vocational training, as well as tertiary education, increases the

probability of labor-force participation in comparison to no further education. Similarly to schooling effects, nevertheless, further education attained abroad has lower effects than that gathered in Germany, thus also validating migration scholars' human capital specifications and segmented labor market theory. In model 1, whereas the foreign vocational training raises the chance to work by nearly 0.05, although only with a 10 percent significance level, German vocational training increases it by 0.11 (significance level of 1%), in reference to category none further education. Moreover, while the effect of foreign university degrees is equal to 0.07, that of German university degrees is 0.08, both with 5 percent significance levels. The highest estimate is represented by German vocational training, which constitutes the medium level of education. Schooling accounts perhaps for some of the effects of further education.

Furthermore, estimates shown in models 8-10 do not strongly support that *the higher the investments in education, the more the working hours* (hypothesis 1b). On the one hand, a trend whereby longer time spent at school increases gradually the chances to work is recognizable in model 1. On the other hand, however, whereas many effects are not significant, category upper secondary oppositely influences the hours worked with reference to secondary in Germany. For comprehension purposes, the interaction effects of further education and, as presented in chapter 7, very relevant variable presence of children under six years old are plotted in graphic 8 (based on linear regression model 11, table 19 in appendix). This illustrates that there is actually a general tendency to work more hours when having invested more in education. Overall, women with tertiary education attained domestically spend more time at work than others. However, although a higher academic degree implies higher investments in education, university degrees obtained overseas have a lower effect in the labor participation hours than German certificates except the national vocational training in case of mothers of younger children. Moreover, women with vocational education received abroad work fewer hours than women without any further training. Thereby, hypothesis 1b also can only be partially confirmed.

Graphic 8

Linear regression with dependent var. LFP hours, interaction effects



Source: IAB-SOEP Migration Sample (2013), own depiction.

Having more experience in Germany, measured in age and years since migration, enhances the labor participation of migrant women in model 1. In this model, each extra year of age increases the probability to be economically active roughly by 0.01 at a 1 percent significance level. Nevertheless, age's effect turns to be insignificant in model 2, in which variables related to the household are included. Possibly, predictors regarding having children totally mediate the influence of age. E.g., given that the majority of women with children under six years old are between 28 and 38 years old (68%), the period in which women are more likely to be employed is located before age 28 and after age 38, as can also be seen in above presented graphic 2. Besides, each year spent in the host country raises also this chance by almost 0.02, while *years since migration squared* has a negative, very reduced effect of almost zero, both at 1 percent significance level. These variables indicate that the effect of duration in Germany is positive until a particular number of years after migration, where it begins to become slightly negative. I suggest that this change begins past the 31 years in Germany (for exemplification, see table 23 in appendix). Although age has no stable effects, given that the effects of the duration in the destination country are significant across all models, I conclude that experience is positively related to labor participation, but only until the person is on average 32 years in Germany. Hypothesis 2 can, thus, be tentatively confirmed.

The third hypothesis, which states that *healthier individuals are more likely to be employed*, can be substantially confirmed throughout all the models. In reference to persons who reported not being healthy, women with satisfactory and good health have respectively 0.14 and 0.17 more chances to participate in the labor market at a 1 percent level of significance in model 1. In the second model, these effects increase to 0.15 and 0.19 with same significance, remaining the same in the fourth and seventh models. Apparently, controlling for variables related to household has an impact on health's influence. While women with children younger than 17 years old tend to work

less than others, to be healthier has a more important effect. Moreover, there is also a trend across models 8 to 10. Women who are satisfactorily healthy tend to work on average one hour more than those who described themselves as unhealthy, although this result has no significance. In comparison, healthier persons spend 2.25 hours more at work at a 5 percent significance level. As including structural-level and cultural-level variables, these effects fall, however. Only “healthy” keeps a significance level of 10 percent, with an estimate of 2.00.

Given the traditional alternative roles of women, *married women tend to participate less in the labor force* according to human capital theory (hypothesis 4a). However, the linear probability models of this paper indicate that the effect of being married on labor participation status is insignificant. In contrast, the estimates of having children under six years old and the number of children aged six to seventeen are very significant, increasing model's explanatory power (R-squared) from 0.13 to 0.23. Being mother of at least one younger child reduces the chances of working by 0.37 at a significance level of 1 percent, with this effect remaining stable across the models, which supports that *mothers of children under the age of 17 tend to participate less in the labor force, particularly during early motherhood* (hypothesis 4c). Moreover, each child aged 6-17 minimizes the likelihood of labor participation by almost 0.04, also with the maximum significance level. Hence, the strong explanatory power of the motherhood aspect, especially when having younger children, appears to intervene totally with the effect of marriage.³⁵ This suggests that marriage is not per se oppositely related to labor participation in case of migrant women, instead marriage is often accompanied by having children, which is closely associated to withdrawal from the labor market and reduction of working hours.

Nevertheless, models 8-10 significantly support that married women work less hours than unmarried women (hypothesis 4b). Being married reduces the working time by 2.30 hours weekly (significance of 1%). First, when controlling for structural variables, this estimate becomes stronger (-2.60) and, second, weaker (-2.52) when including cultural traits (also at the 1% level of significance). The effect appears to be suppressed by structural variables and, then, partially mediated by those defined as cultural. Meanwhile, having one or more young children reduces also the working time by 5.67 weekly hours, and each child between 6 and 17 years old diminishes it by 2.40 hours at 1 percent significance level. In conclusion, hypothesis 4a is rejected, while assumptions 4b, 4c, and 4d are tentatively confirmed.

³⁵ For example, see again graphic 4 which illustrates the relationship between marriage and labor-force participation. I additionally test this mediator effect by estimating the bivariate effect of marriage on labor participation status, which is -0.08***. As variable presence of children under six years old is added into the model, the former coefficient turns out to be -0.002, without any significance, while that of the latter results in -0.34***. Thus, presence of children mediates the full effect of being married.

Hypothesis 5a, in which I state that *the higher the language skills, the higher the probability to be employed*, can be tentatively confirmed. Models 1 to 7 clearly show a trend regarding this variable. While speaking German fairly rises the chances of working by 0.14 in comparison to having poor or none language skills, speaking German good or very good increases them by respectively 0.28 and 0.29 at significance levels of 1 percent. Household variables being added into model 2, all effects fall slightly, whereas good as well as very good language knowledge have nearly the same large influence (approx. 0.24). The coefficients of German knowledge vary only marginally remaining significant across all models, which suggests that it constitutes a stable predictor.

A similar conclusion is expected regarding explained variable working hours (hypothesis 5b). Models 8 to 10 demonstrate likewise a trend in the effects of the language skills on working hours per week. Firstly, speaking fairly increases the weekly working time by 2.25 hours with respect to category poor or none language skills, although without statistical significance. Secondly, good German knowledge raises it by 3.65 hours with 0.1 p-value, however. Thirdly, very good language skills are the only influence which is very statistically significant, increasing the working hours by 5.52. This estimate falls when including structural variables, suggesting that the effect is partly mediated by those. Nevertheless, assumption 5b can be rather accepted.

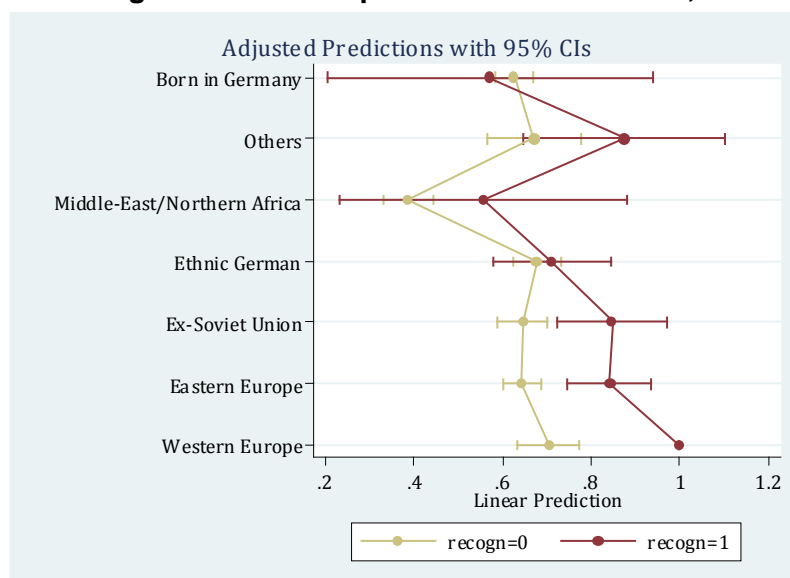
To be a second or third generation migrant raises the chances of participating in the labor market, according to theory. Regarding this paper's results, this expectation can be likewise confirmed (hypothesis 6a). On the one hand, in scenario 1, persons born in Germany have almost the same chances to be employed as economic migrants, who hold the highest estimates. The former have 0.27 higher probabilities that $Y=1$ than persons who arrived in Germany as refugees, while the latter have 0.28, at a 1 percent significance level. Both effects fall faintly as introducing variables related to family situation, which, again, speaks for the relevance of motherhood on the effects of other variables on labor participation. On the other hand, in model 3, the probability of working when having been born in Germany is not the highest (0.24), with respect to the reference category origin Middle-East and Northern Africa. The other groups possess better chances to participate in the labor market than second or third generation migrants. E.g., being from Western Europe increases the likelihood of $Y=1$ by 0.33, while ethnic Germans, women from Eastern Europe or the Ex-Soviet Union hold coefficients of nearly 0.26 (significance level=1%). Nonetheless, as individual-level variables have been added into model 4, all estimates decrease severely, indicating that some of the variance of these categories is explained by individual traits. Second and third generation migrants have then almost the best chances to be employed, along with Western Europeans (roughly 0.18 with a 1% significance level). Furthermore, when controlling for cultural variables in model 7, being born in Germany raises the chances of working the most, with an estimate of 0.13 at the 5 percent level of significance. Therefore, second and third generation immigrants have more characteristics which cannot be explained by other tested factors, suggesting that they are

certainly favored regarding workforce participation, although they have not the highest employment rates (see again graphic 4).

Hypothesis 6b postulates that *immigrants who moved for economic reasons are expected to be more favorably selected participating more in the labor market than other migrants*. As mentioned in the last paragraph, having had an economic migration motivation changes the probability of working by 0.28 with respect to the reference category. In scenario 2, this estimate decreases to 0.25, being still very significant. I.e., expectation 6b can be tentatively accepted. Besides, assumption 6c can also be statistically confirmed. *Immigrants who arrived as refugees are relatively less likely to be employed than other migrants*. Models 1 and 2 show that all other migration classes or motivations increase the probability of labor participation to some extent, while the effect of landing as refugee or asylum seeker is set to zero. In addition, meaningful is also that to be a tied mover increases the probability to work the least, given that the majority of immigrant women arrived as spouses or children of the principal migrants (36%), as shown in chapter 7. This finding supports Chiswick's (1999) thesis, which states that tied movers are comparably disadvantaged due to their relatively less transferable human capital.

8.2 Individual and structural level (hypothesis 7)

The seventh hypothesis, derived from both human capital and segmented labor market theories, posits that qualifications obtained in less similar countries of origin are less acknowledged than those attained in more similar countries, increasing less the labor participation than those. Graphic 9 shows the interaction effects of the dummy variable recognition of qualifications and area of origin on the probability of participating in the labor market (see table 20 in appendix). The linear prediction shows that the confidence intervals among persons of all origins whose skills were acknowledged overlap. It appears that women from Western Europe with recognized skills have 100 percent chances to work, with area of origin acting as moderator variable. Nevertheless, this conclusion is based on only 14 cases (see frequencies on table 24 in appendix). Given that the differences between the regions of origin cannot be interpreted as significant, assumption 7 is not supported.

Graphic 9**Linear regression with dependent var. LFP hours, interaction effects**

Source: IAB-SOEP Migration Sample (2013), own depiction.

However, women from Western and Eastern Europe, as well as from the Ex-Soviet Union, without recognized qualifications have significantly less chances to participate in the labor market, which indicates that the acknowledgment of skills plays an important role. In comparison, the labor participation probability of ethnic Germans, migrants from the Middle-East and Northern Africa, other immigrants, and those born in Germany differs not significantly regarding recognition of qualifications. Second and third generation migrants can be expected to receive education in Germany and, hence, need no institutional transfer of skills. Besides, table 24 indicates that the skills of Western Europeans are more likely to be recognized than those of other migrants. While only 13 percent of Western European applicants were rejected, over 30 percent of the educational certificates of all other immigrants were not validated by the German institutions. Nonetheless, I once again refer to a reduced number of cases.

8.3 Structural level

Hypothesis 8 states that *the perception that the job corresponds with past training is related to more working hours*. In short, it may be expectable that such opinion *matters*, which is the case in this paper. Models 9 and 10 show this variable's stable effects on the working hours of migrant women, supporting H8. Thinking that the job requirements correspond with one's human capital increases the labor participation time by 4.19 hours at the 1 percent significance level. When controlling for religion, this influence slightly falls to 4.09 hours, with same significance. Besides, having skills validated by German instances increases the probability of working by 0.08 in whole model 7 and the working hours by 2.85 (significance of 5%). These results indicate that women, whose skills are not recognized by employers and institutions as well, work less. From segmented labor market theory, the not-acknowledgment of qualifications attained abroad constitutes an indicator for segmentation. The perception of

concordance of skills and job could, thus, explain some of the lower labor participation of migrant women in Germany.

As mentioned above, Western Europeans have better chances of working when taking into account structural and individual variables, with coefficients of 0.33 and 0.19 in models 3 and 4 (1% significance level). As cultural predictors are added into model 7, they increase the probabilities of working by a lower estimate than second and third generation migrants. They turn to raise this probability to 0.09, while category born in Germany has 0.13 more chances than women from the Middle-East and Northern Africa, as mentioned before. This change may rely on the effect of the Christian religion, which is held by the majority of Western Europeans, but not by the women born in Germany, with roughly 25 percent of them being Muslims. Because Christianity, compared to no religious denomination, surprisingly increases the probability of working by 0.08 at a 1 percent level of significance, it may be partly mediating the high influence of Western European origin on the chance to be employed.

However, I also test whether *higher education increases more the probability of working of Western Europeans than others with similar education* (hypothesis 9), which would somewhat indicate labor market segmentation. In order to prove this, model 13 in table 21 (in appendix) shows the interaction effects of dummy variable “Western European” and further education on explained variable labor participation status. Overall, being from Western Europe increases the chances of participating in the labor market by 0.24 at a 1 percent significance level. This coefficient is the difference in the average labor-force participation chance between Western Europeans and women of other origins. When speaking about education completion, the effects of all categories except university abroad are significantly higher in women from backgrounds other than Western Europe. While the effect of vocational training attained abroad increases the chance of participating in the labor market by 0.17 among them, the same effect in case of Western Europeans is $0.17 - 0.31 = -0.13$, at a 5 percent significance level. Moreover, the estimate of an academic degree received in Germany is also $0.30 - 0.43 = -0.13$ among Western Europeans, whereas that of other immigrants raises the probability of working by 0.30 (both at 1% level of significance). This suggests that the main effect of being from Western Europe is higher than that of other women given that the former work averagely at higher rates, with the less educated participating in the workforce comparatively more than others, while the latter work more often when having further education. Hence, this factor plays a more considerable role among those women who did not arrive from Western Europe. Thereby, hypothesis 9 must be rejected.

8.4 Cultural level

Models 5 and 6 coefficients support hypothesis 10a, which state that the *Muslim religion has the highest negative effect on labor participation*. In comparison to having no religious denomination, belonging to the Islamic community reduces the probability of working by 0.18 at a 1 percent level of significance. When controlling for individual-level variables, this impact falls to -0.06 and loses some significance (significance

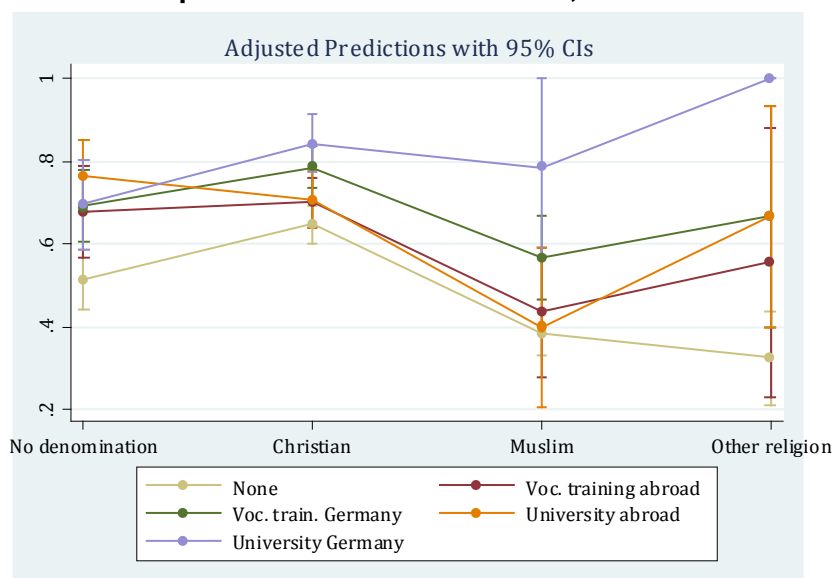
level of 5%) but still is the most opposite effect on labor participation status after category other religion (-0.08), which has no significance, however. Individual-level indicators appear, thus, to mediate, the influence of religion on work. I.e., to be Muslim has a lower effect when controlling for human capital and family related variables. In model 7, structural variables are added. The impact of the Muslim religion turns out to be positive, which suggests that its effect is suppressed by those variables. Perhaps, given the relationship between area of origin and religion, as said in chapter 7, the former invalidates the significance of the latter, totally mediating its effect.³⁶ However, because the estimates in models 5 and 6 are significant and negative, assumption 11a can be accepted.

In contrast, hypothesis 10b must be dispelled. It was expected that *the Christian religion has the second highest negative effect on labor participation*. Due to the reinforcement of traditional values among the Abrahamic religions, the Muslim and the Christian affiliations should decrease the labor-force participation of migrant women. Nevertheless, to be Christian raises, actually, the probability of working by 0.09, with a 1 percent significance level. After including individual-level variables, this estimate barely falls to 0.08, with same significance. Moreover, in model 7, the effect remains the same. These findings may appear surprising, given that persons without religious denomination do not tend to work more than religious individuals. However, as also considered, women arrive from more or less individualized societies. Individualization processes have perhaps affected the majority of women who defined themselves as Christian, thus reducing the importance of traditional gendered division of work. As plotted in graphic 6, most women of each area of origin reported being Christian, only excluding women from the Middle-East and Northern Africa, as well as those classified as others. In these last cases, thus, societies are less post-materialist, as defined by Inglehart and Norris (2003). Thereby, only the Muslim religion still works as indicator for traditionalism regarding the gender contract.

Furthermore, education should play a relevant role on the effect of religion because it is related to individuals having less traditional role models. To illustrate the relationship between religion and education, I present following graphic 10, which shows the interaction effects of these variables on the likelihood of working (based on table 22 in appendix).

³⁶ VIF values are still under 10.

Graphic 10
LPM with dependent variable LFP status, interaction effects



Source: IAB-SOEP Migration Sample (2013), own depiction.

Among the Christians, Muslims, and persons with other religious affiliations, women with education attained in Germany appear, again, to have more chances to work, followed by those who were educated overseas. Especially the German academic degree increases the labor participation even in case of the Islamic religion, which is somewhat linked to traditionalism of values. The effect of the Muslim religion is by 0.22 higher with such degree than without any further training, with education acting as moderator (although at the 10% level of significance). This means, while Muslims without further education have averagely 0.13 less chances of being economically active than not religious women, those with a German university degree are 0.09 more likely to work than them. In contrast, the foreign tertiary education reduces that effect by 0.23 among persons of that religious community and by 0.19 among Christians (respectively 5% and 1% significance levels). This highlights that the education received abroad is not very associated to women working more. This is perhaps linked to the fact that only the qualifications of 173 persons were acknowledged of the 270 who applied for that, representing little considering that 653 women reported having completed further training abroad.

In assumption 11a, I state that *the religiosity level has an opposite effect on the labor-force participation*. Models 5 and 6 estimates indicate that this hypothesis can be validated. Women with lower religiosity levels, measured according to frequency of praying, are more likely to be part of the workforce. Model 5 shows a trend whereby women who pray weekly have an increase in the probability of working of nearly 0.08 in comparison with women praying on a daily basis (5% significance level), while praying monthly or never increases that chance by 0.09 and 0.10 respectively (with a 1% level of significance). With individual-level variables in model 6, all parameters fall by approximately 0.03. The coefficient of praying weekly becomes insignificant, while those of never and monthly or less frequently praying lose significance (now 5%), suggest-

ing that human capital and other personal variables mediate the effect of the first category totally and that of the others partially. In the full model, the coefficients change only marginally.

On the contrary, hypothesis 11b, which posits that *the religiosity level has an adverse effect on the working hours*, cannot be supported. Model 10 shows that the effects of the religiosity level on the time spent at work are insignificant. Perhaps, other variables already account for the influence of religiosity, observing that R-squared has changed little from model 9 to 10 (0.181 to 0.185).

9 Summary and discussion

The principal purpose of this paper was to analyze the labor-force participation of migrant women. In international and German research, many studies focus on differentiated labor market performances of natives and migrants, using micro-level and macro-level explanatory frameworks. Based on the neoclassical perspective, the human capital theory represents largely the most applied approach regarding the micro-level, with distinct individual characteristics such as education being the reason for inequalities in the labor market. The macro-level has been often tested from segmented labor market or discrimination theories, which trace the inequalities back to a disadvantageous treatment of minorities. Considering the importance of these perspectives, the first two were chosen to shape the theoretical framework of this paper. Other scholars' suggestions are that the labor market behavior of migrant women relies not just on their human capital or the difficulties they experience in the country of destination, but on their cultural schemes regarding role models. Following that advice, I deepened the aspect of gendered roles as a separate approach by applying religion as indicator for traditional values, as indicated by some authors (Guetto et al. 2015; Inglehart/Norris 2003; Polavieja 2015). Then, this research had as goal investigating the workforce participation of migrant females from human capital – and its particular assumptions regarding women and immigrants –, segmented labor market, and gender attitudes' perspectives.

From these approaches, individual, structural, and cultural variables were analyzed to comprehend the causalities of labor market integration and relationships between specific factors to some extent. Hypotheses were developed from each theory and tested across fourteen multiple regression models, from which four contained exclusively the interaction effects of particular aspects, having as explained variable either the labor participation status or the working hours. As summarized in table 4, not all assumptions could be supported reflecting the study group's diversity regarding theory.

Individual-level hypotheses aimed to test how human capital skills and household's context influence the employment status and working hours of foreign women. First, education was expected to increase the probability of participating in the workforce and the working hours as well, which was only partially confirmed. On the one hand, my findings show a trend whereby higher schooling and further education are related

to working more and for longer time. On the other hand, they demonstrate that education obtained abroad has averagely lower relevance than that received domestically, with foreign tertiary education raising less the labor participation than German vocational training, for example. As suggested by scholars in human capital and migration (Chiswick 1978, 1979, 1999, 2016; Chiswick/Miller 1992; Friedberg 2000) and segmentation theory (Doeringer/Piore 1971; Piore 1973, 1979; Wilson/Portes 1980), foreign human capital skills are less valued than those attained in the destination country.

Table 4
Summary of findings

Levels	Codes	Hypotheses	Supposed	
			Effects	Findings
Individual	1a	Education on LFP status	+	p.
	1b	Education on LFP hours	+	p.
	2	Experience in Germany on LFP status	+	yes
	3	Health on LFP status	+	yes
	4a	Marriage on LFP status	-	no
	4b	Marriage on LFP hours	-	yes
	4c	Presence of children on LFP status	-	yes
	4d	Presence of children on LFP hours	-	yes
	5a	Language skills on LFP status	+	yes
	5b	Language skills on LFP hours	+	yes
	6a	Second generation migrant on LFP status	+	yes
	6b	Economic migrant class on LFP status	+	yes
Individual-structural	6c	Refugee migrant class on LFP status	-	yes
	7	Skills recognition/Western Europe on LFP status	+	no
Structural	8	Job-skills correspondence on LFP hours	+	yes
	9	Higher education/Western Europe on LFP status	+	no
Cultural	10a	Muslim religion on LFP status	-	yes
	10b	Christian religion on LFP status	-	no
	11a	Religiosity level on LFP status	-	yes
	11b	Religiosity level on LFP hours	-	no

Note: in findings, yes = hypothesis supported, no = hypothesis rejected, and p. = hypothesis partially supported.

Source: own formulation.

The second and third human capital hypotheses were supported. The second one stated that experience, measured in age and duration of the stay in Germany, is positively linked to participating in the labor market. Although age was shown to matter in the first LPM, its effect became insignificant when controlling for other variables. Apparently, having children mediates the full effect of age, given that the average employment rate increases until the mid-twenties, where motherhood more often begins, falls substantially and then rises again past the age of approximately 35 (see graphic 2). In contrast, variable time since migration was demonstrated to increase the probability of working until roughly the 31 years in Germany throughout the models. Given that the duration in Germany is steadily significant across the models, I

argue that experience is a predictor of labor-force participation. Moreover, hypothesis 3 which postulates that individual's health is associated with higher labor-force participation and working hours could be accepted. Healthier persons tend to work more often and for longer time. Moreover, to be healthier is more relevant among women without children, who besides possess on average higher employment rates.

My analysis also supports that family's situation affect labor market decisions, which has been often suggested by many scholars and institutions (e.g., EESC 2006; EC 2015; Lenz/Adler 2011; Mincer/Polachek 1974). Presence of children influences the labor market performance of women tremendously, representing the most relevant and stable factor studied. Both – having children under six years old and between 6 and 17 – decrease the workforce participation and working hours of women significantly. Especially having at least one younger child reduces the probability of working by nearly 0.36 across all models, which is a pretty large reduction. In comparison, being married and living together with the partner has no implicit effect on the economic activity of women. This variable turned out to affect negatively the probability of working only when estimated without considering the presence of kids. I.e., having children is actually the most important family-related factor and is usually accompanied by marriage. Being married is, however, oppositely related to continuous variable working hours. Despite also controlling for motherhood, marriage decreases significantly the working hours by roughly 2.3 weekly hours in model 8, for example.

Hypotheses 5a and 5b were set up to test if the language skills are related to labor-force participation and working hours, as is standard in human-capital migration research (Chiswick 2016). My results indicate that the effect of the German knowledge is significantly strong and stable, with better language skills raising gradually the probability of women working. E.g., even when also controlling for family-related, structural, and cultural factors, the increase in that chance is very relevant if speaking good or very good German: 22 percent in reference to having none or poor language abilities. In comparison, this factor appears to influence the working hours less importantly. A trend whereby a better idiomatic knowledge is associated with women spending more time at work was spotted, but when including structural variables, some estimates lost significance. However, better linguistic skills are still linked to more working hours. Thereby, I support that idiomatic isolation has negative implications for individuals' economic performance, as argued by Chiswick (2016: 10).

My findings also support that the migration class or motivation plays a major role in the labor-force participation of migrant women (Chiswick/Miller 1992). Second and third generation immigrants have comparatively better probabilities of being employed than first generation migrants except those who arrived motivated by economic reasons. Moreover, although they have not the highest employment rate (63%), migrants born in Germany have more particular characteristics than foreigners born in other regions which are not explained by other aspects. It is perhaps the unobserved, implied knowledge product of being raised in Germany. Furthermore, economic mi-

grants have the highest probabilities of working with regard to migration class “refugee”. In accordance with theory, because of labor migrants plan their move, they tend to possess more transferable skills than others. Meanwhile, given the unprepared nature of refugee migration, persons who arrived in the host country as asylum seekers hold generally the least destination-country specific qualifications. This paper’s results show that this is the case of ex-refugees in Germany, who have a lower probability for labor participation in comparison to all other categories. Interesting is also that tied movers increase the probability of working the least, with reference to refugees. Because their migration is rather triggered by kinship, they have tendentially less transferable skills. Considering that the majority of the migrant women arrive in Germany as tied movers (36% of the sample), this result could give a hint to why the labor participation of foreign women is importantly lower than that of natives.

Unfortunately, the segmentation thesis could be only restrictively tested. On the one hand, education attained abroad has on average less positive effects on labor participation than education received in Germany. This implicates that foreign-obtained qualifications are transferable into the German labor market only to a limited extent, as indicated by migration scholars in human capital research (ibid.; Friedberg 2000) and labor market segmentation theorists (Constant/Massey 2005; Wilson/Portes 1980). Surprisingly, only few women applied for the acknowledgment of their qualifications. While 653 reported having a certificate of completed education, only 270 applied for their institutional recognition. Almost one hundred solicitudes were rejected, whereas 173 were accepted. Besides, assumption eight could also be confirmed, thus supporting that the perception that one’s qualifications correspond with the knowledge required at work matters. This suggests that qualified women whose skills are not acknowledged in the labor market tend to work fewer hours than those who occupy job positions with requirements equivalent to theirs. Besides, women with institutionally validated skills are more likely to be employed and to work more hours. The non-recognition (or the limited one) of foreign qualifications indicates segmentation, with migrants being almost automatically allocated in the secondary economic sector. This conclusion provides another explanation for the lower labor market participation of immigrant women in Germany.

On the other hand, although several studies indicate ethnic segmentation in the German labor market (Constant/Massey 2005; Heath/Cheung 2007; Kalter/Granato 2007; Kogan 2010), only little further evidence for that was found. Hypothesis 7 stated that skills gathered in less similar regions are less often recognized than those attained in the control group, Western Europe. Because the differences between the areas of origin were insignificant, also considering that the number of cases was 173, this assumption was rejected. Nevertheless, I could determine that the acknowledgment of education is related to women working more in case of Western and Eastern Europeans, as well as those from the former Soviet Union. Besides, qualifications obtained in Western Europe are more likely to be validated by German instances than those received somewhere else.

Hypothesis 9 postulated that skilled Western Europeans, which constitute the most similar region of origin to Germany, enjoy a status somewhat comparable to their German counterparts with which they are more likely to be employed than other migrants. This premium would suggest also labor market segmentation because high educated individuals from other origins would be less able to translate their human capital and, thus, work less. My analysis indicated the opposite results: less educated Western Europeans have better chances to work than other migrants, while higher education increases more the chances to be employed among the latter. There is a clear tendency among migrants from regions except Western Europe to participate more in the labor market when being better educated, whereas Western Europeans work surprisingly always at similar, high rates.

Furthermore, distinct labor participation of women from different origins, as well as belonging to particular religions, cannot per se be interpreted in migrant women quantitative research as systematical exclusion from the primary sector, as has been concluded by some scholars. Given cross-national, cultural differences, the gender attitudes among immigrants are likewise diverse. Because unemployment among migrant women could also be the product of own choices, I suggest that further investigation in migrants' labor participation which attempt to examine economic exclusion or discrimination should also be supported by other tests.³⁷ For example, as also stressed by Heath and Cheung (2007), employers attitudes concerning migrant women could be directly canvassed by using methods such as Czymara and Schmidt-Catran's (2016) vignettes and the job résumés of Pager et al. (2009).

Previous research led to the expectation that the Muslim religion was associated with women working relatively less, which this paper's findings support (hypothesis 10a). Although migrant women are distant to the institutional conditions of their countries of origin, they keep own cultural schemes mostly reproduced in their familial contexts (Polavieja 2015). My results indicate that belonging to the Islamic community acts as indicator of cultural traditionalism, which enhances gender inequality and discourages women from participating in the labor market. However, education decreases the negative effect of the Muslim religion and increases the positive impact of being Christian on the probability of working, although almost only when the person received training in Germany. In contrast to assumption 10a, 10b was rejected. I stated that the Christian religion was related to having also traditional role models whereby a patriarchal division of work is reproduced. However, the analysis showed that Christians have even more chances to be employed than persons without religious denomination, which remembers Weber's protestant ethic (1934). This may be linked to the effects of the vast "post-materialist shift" or individualization processes born in industrial

³⁷ I also tested if feeling disadvantaged due to origin plays a role in the labor participation of migrant women, resulting to be irrelevant. However, interesting is that 53% of the sample feels disadvantaged to some extent.

countries, which imply equalization of gender attitudes (Inglehart/Norris 2003). However, this result does not discard that Christians reproduce rather a “good” or “super” mother ideal by which women work part-time and do the majority of the housework and childcare, as is standard in Germany (Lenz/Adler 2011). “Unfortunately”, the estimates of religion on working hours were insignificant.

The evaluation demonstrated further that a higher religiosity level, measured as frequency of praying, reduces the chance of being employed (hypothesis 11a). As religion, a higher religiosity level is associated with traditionalism of values. However, the coefficients in models testing the effects of religiosity on the time spent at work had no significance. Thus, hypothesis 11b was rejected.

My conclusion is that the labor-force participation is reproduced (or not) by a continuous interplay between individual, familial, structural, and cultural factors. Human capital variables such as education and language skills play an important role in promoting employment, while a large proportion of the foreign women are negatively selected. The most relevant opposite factor to female labor participation consists of childcare responsibilities. These are largely taken by women, which may be related to the fact that the majority arrives in Germany as a tied mover. Women’s economic behavior is somewhat conditioned by having children implying a predominant traditional division of work among immigrants. Differences in the labor-force participation across areas of origin reflect in part group’s ethnic capital; i.e., their average characteristics including human capital and culture. Perhaps, they also evoke differential treatment from employers and institutions. I highlight that foreign education is not very associated to women working more, which suggests certain labor market segmentation. Past investments in human capital do not implicate their validation, whereas recognized skills are associated with women being more often employed and working more hours. These findings implicate that the national, institutional structures are crucial in the labor market performance of immigrant women. In addition, immigrants arrive from different historically embedded societies with more or less levels of gender inequalities that constitute reference schemes internalized by them. Muslims possess by far the most traditional values whereby sharp distinctions between men and women’s roles are emphasized. The effect of that religion, however, falls with higher education, which is related to more equal gender attitudes. The three perspectives evaluated are complementary in the explanation of labor participation, with some factors being more relevant than others. In sum, the labor participation is an agent’s choice influenced by structure and culture that the agent also affects, with high withdrawal from the labor market recreating the status quo by which cultural traditionalism is perpetuated.

Knowledge is a tool either to reproduce or to challenge the state-of-the-art of (masculine) domination (Giddens 2006: 111). This study represents one of the few attempts which focus especially on migrant women’s labor-force participation in Germany, which must change. More research in this topic should further provide the empirical

basis to address the problem of the significantly higher risk of poverty and social exclusion faced by minorities and elderly women, considering especially the huge migratory waves experienced by Germany in recent years. Related to the higher poverty risk, migrant women also are the most disadvantaged concerning the wage gap between men and women and that between natives and immigrants (Constant/Massey 2005).

Currently, the most stressed solution consists of promoting immigrant women's economic integration (e.g. Fuchs et al. 2016). As suggested by Polachek (2004), the pay gap narrows when women work at more similar rates to men, with the wage gap being a result of direct and indirect discrimination. Direct market discrimination happens when minorities are systematically excluded from certain jobs and different wage rates are returned by employers for the same human capital stock. Recalling Thurow (1975), the expectation of firms that women and migrants' duration at work may be affected by their alternative roles – females as mothers and immigrants returning to their homelands – places them behind native men in the hiring queue. Indirect market discrimination is the effect of perceived discrimination, what discourages investments, then reducing possibilities to earn more (Mincer/Polachek 1974: 425). With less extended periods of unemployment and longer working lives, the poverty gap will similarly reduce.

The relatively low economic activity of migrant women constitutes a major issue for Germany. Increasing their inclusion into the labor market requires societal change at all individual, structural, and cultural levels, and will, therefore, need long time. However, policies can support that shift. Several policy measures have already been undertaken by the government to integrate immigrants into the economic, social, and linguistic life.

I argue that the lower labor-force participation of migrant women compared to natives is in part explained by negative selectivity and more traditionalism among the former, who have qualifications that are only restrictively transferable into the German labor market. Considering political and administrative actions that promote a broader recognition of foreign certificates could improve the economic integration of immigrants, as has been done in Australia long ago, for example (Chiswick/Miller 1992).

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Appendix

Table 5
Description of variables

	Obs.	Mean	Std. Dev.	Min.	Max.
Labor participation status	2,319	0.63	0.48	0	1
Working hours	1,282	27.95	11.93	2	50
<i>Education</i>					
School completion	2,319	2.63	1.59	1	7
Further education	2,319	2.30	1.35	1	5
<i>Experience</i>					
Age	2,319	36.50	10.32	17	60
Years since migration	2,319	10.59	9.08	0	59
Years since migration squared	2,319	194.62	297.95	0	3,481
Language skills	2,319	2.08	1.17	1	5
Migration motivation	2,319	3.50	1.68	1	6
Health	2,319	1.49	0.73	1	3
Marital status (married)	2,319	0.63	0.48	0	1
Having at least one child under 6 years old	2,319	0.26	0.44	0	1
Number of children aged 6-17	2,319	0.63	0.92	0	6
Husband's income	2,319	1,424.41	1,950.85	0	35,000
Area of origin	2,319	4.05	2.04	1	7
Acknowledgement of skills	2,319	0.07	0.26	0	1
Feels disadvantaged	2,319	0.47	0.50	0	1
Job corresponds with training	1,456	2.34	0.81	1	3
Religious denomination	2,319	2.07	0.78	1	4
Religiosity level	2,319	2.49	1.21	1	5

Source: IAB-SOEP Migration Sample 2013, own calculations

Table 6
Frequencies of employment status

	Freq.	Percent	Labor participation status	Freq.	Percent
Full-time employment	589	0.25	Yes	1,456	0.63
Regular part-time employment	497	0.21			
Vocational training	105	0.05			
Marginally employed	265	0.11			
Near retirement, zero working hours	0	0.00	No	863	0.37
Voluntaries soc./ eco. year / federal	4	0.00			
Unemployed	859	0.37			
Total	2,319	1.00		2,319	1.00

Source: IAB-SOEP Migration Sample 2013, own calculations

Table 7
Working hours (only employed women)

	Freq.	Percent
Low labor participation	160	0.12
2-10 hours		
Medium labor participation	526	0.41
11-30 hours		
High labor participation	596	0.46
31-50 hours		
	1,282	1

Source: IAB-SOEP Migration Sample 2013, own calculations

Table 8
Country and area of origin

	Freq.	Percent	Area-of-origin	Freq.	Percent
Born in Germany	540	0.23	Born in Germany	540	0.23
Ethnic German	336	0.14	Ethnic German	336	0.14
Greece	47	0.02			
Italy	63	0.03			
Spain	38	0.02			
Austria	6	0.00			
France	7	0.00			
Great Britain	1	0.00			
Sweden	2	0.00	Western Europe	180	0.08
Norway	1	0.00			
Finland	1	0.00			
Switzerland	6	0.00			
Portugal	5	0.00			
Ireland	1	0.00			
Netherlands	2	0.00			
Ex-Yugoslavia	9	0.00			
Romania	144	0.06			
Poland	189	0.08			
Hungary	5	0.00			
Bulgaria	11	0.00			
Czech Republic	7	0.00			
Croatia	16	0.01			
Bosnia-Herzegovina	27	0.01	Eastern Europe	559	0.24
Macedonia	13	0.01			
Slovakia	5	0.00			
Kosovo-Albania	93	0.04			
Albania	2	0.00			
Serbia	36	0.02			
Montenegro	2	0.00			
Russia	117	0.05			
Moldavia	5	0.00	Ex-Soviet Union	313	0.13
Kazakhstan	76	0.03			

	Freq.	Percent	Area-of-origin	Freq.	Percent
Kyrgyzstan	10	0.00			
Ukraine	61	0.03			
Tajikistan	2	0.00			
Uzbekistan	6	0.00			
Latvia	2	0.00			
Azerbaijan	9	0.00			
Belarus	14	0.01			
Georgia	4	0.00			
Lithuania	2	0.00			
Armenia	5	0.00			
Turkey	171	0.07			
Iran	12	0.01			
Syria	26	0.01			
Afghanistan	12	0.01			
Ethiopia	3	0.00			
Ghana	3	0.00			
Tunisia	2	0.00			
Nigeria	4	0.00			
Iraq	26	0.01			
Morocco	17	0.01			
Lebanon	10	0.00	Middle-East and Northern Africa	307	0.13
Pakistan	5	0.00			
Jordan	2	0.00			
Kenya	2	0.00			
Kuwait	1	0.00			
Cameroon	3	0.00			
Togo	3	0.00			
Kurdistan	1	0.00			
Palestine	2	0.00			
Zimbabwe	1	0.00			
Rwanda	1	0.00			
North America	5	0.00			
Central America	8	0.00			
South America	14	0.01			
Asia	49	0.02	Other countries	84	0.04
Africa	6	0.00			
Oceania	1	0.00			
No Answer	1	0.00			
	2,319	1.00		2,319	1.00

Source: IAB-SOEP Migration Sample 2013, own calculations

Table 9
Labor participation by ages 51-60

	Freq.			Percent		
	No	Yes	Total	No	Yes	Total
51-52	22	54	76	0.29	0.71	1.00
53-54	15	39	54	0.28	0.72	1.00
55-56	18	36	54	0.33	0.67	1.00
57-58	21	17	38	0.55	0.45	1.00
59-60	13	22	35	0.37	0.63	1.00
Total	89	168	257	0.35	0.65	1.00

Source: IAB-SOEP Migration Sample 2013, own calculations

Table 10
Further education by age-group

	17-27	28-38	39-49	50-60	Total
None	0.63	0.33	0.40	0.40	0.42
Voc. training abroad	0.02	0.12	0.22	0.32	0.15
Voc. train. German	0.28	0.26	0.13	0.09	0.21
University abroad	0.02	0.15	0.17	0.16	0.13
University Germany	0.05	0.13	0.08	0.02	0.09
Total	1.00	1.00	1.00	1.00	1.00

Source: IAB-SOEP Migration Sample 2013, own calculations

Table 11
Labor participation by migration background

	No	Yes	Total
Western Europe	0.27	0.73	1.00
Eastern Europe	0.34	0.66	1.00
Ex Soviet Union	0.33	0.67	1.00
Ethnic German	0.32	0.68	1.00
Middle-East and Northern Africa	0.61	0.39	1.00
Others	0.30	0.70	1.00
Born in Germany	0.37	0.63	1.00
Total	0.37	0.63	1.00

Source: IAB-SOEP Migration Sample 2013, own calculations

Table 12
Further educational attainment by migration background

	Western Europe	Eastern Europe	Ex-Soviet Union	Ethnic Germans	Middle-East/North Africa	Others	Born in Germany	Total
None	0.47	0.42	0.28	0.33	0.70	0.43	0.39	0.42
Voc. training abroad	0.08	0.26	0.18	0.30	0.08	0.11	0.01	0.15
University abroad	0.28	0.14	0.26	0.12	0.07	0.24	0.01	0.13
Voc. training Germany	0.10	0.12	0.19	0.23	0.13	0.06	0.41	0.21
University Germany	0.07	0.07	0.09	0.03	0.02	0.16	0.17	0.09
Total	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Source: IAB-SOEP Migration Sample 2013, own calculations

Table 13
Testing nonlinearity in LPM with dependent variable LFP status

	Coef.		SE
Years since migration	0.0076417	***	(3.12)
Years since migration squared	-0.0002038	***	(-2.73)
Constant	0.586588	***	(33.25)
Number of observations	2,319		
R-squared	0.004		

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Source: IAB-SOEP Migration Sample 2013, own calculations

Table 14
LPM with dependent variable LFS status (models 1-2)
Individual-level independent variables

Explanatory variable	H	Model 1			Model 2		
		Coef.		SE	Coef.		SE
<i>Schooling (ref. secondary in Germany)</i>							
Middle/technical/other	+	0.112	***	(0.039)	0.085	**	(0.035)
Upper secondary (Abitur)	+	0.209	***	(0.046)	0.173	***	(0.044)
Abroad: 10 or fewer years	?	0.090	**	(0.043)	0.085	**	(0.044)
Abroad: 11 or more years	+	0.127	***	(0.043)	0.132	***	(0.040)
Still at school	?	-0.105		(0.070)	-0.282	***	(0.071)
No answer		0.027		(0.067)	0.016		(0.063)
<i>Further education (ref. none)</i>							
Vocational training abroad	+	0.051	*	(0.031)	0.046		(0.031)
Vocational train. in Germany	+	0.112	***	(0.029)	0.141	***	(0.026)
Tertiary education abroad	+	0.073	**	(0.033)	0.091	***	(0.031)
Tertiary educ. in Germany	+	0.081	**	(0.038)	0.103	***	(0.037)
<i>Experience</i>							
Age	+	0.006	***	(0.001)	0.001		(0.001)
Years since migration	+	0.016	***	(0.004)	0.016	***	(0.004)
Years since migration squared	-	0.000	***	(0.000)	-0.000	***	(0.000)
<i>Language skills (ref. poor or not at all)</i>							
Fairly	+	0.143	***	(0.049)	0.122	***	(0.047)
Good	+	0.275	***	(0.047)	0.236	***	(0.045)
Very good	+	0.294	***	(0.050)	0.239	***	(0.048)
No answer	+	0.273	***	(0.064)	0.250	***	(0.061)
<i>Health (ref. unhealthy)</i>							
Satisfactory health	+	0.143	***	(0.035)	0.152	***	(0.033)
Healthy	+	0.170	***	(0.030)	0.194	***	(0.029)
<i>Migration motivation (ref. as refugee)</i>							
As employee or student	+	0.282	***	(0.046)	0.251	***	(0.045)
As ethnic German immigrant	+	0.193	***	(0.045)	0.171	***	(0.043)
As tied-mover	+	0.180	***	(0.040)	0.160	***	(0.038)
In a different way	+	0.219	***	(0.053)	0.186	***	(0.051)
Born in Germany	+	0.268	***	(0.063)	0.237	***	(0.060)
<i>Family situation</i>							
Married	-				0.019		(0.022)
Has at least one child under 6 years old	-				-0.372	***	(0.023)
Number of children aged 6-17	-				-0.036	***	(0.011)
Constant		-0.411	***	(0.079)	-0.086		(0.083)
Number of observations		2,319			2,319		
R-squared		0.125			0.230		

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Note: "H" represents the term hypothesis. The signs regard the effects compared to the ref. category.

Source: IAB-SOEP Migration Sample 2013, own calculations

Table 15
LPM with dependent variable LFS status (models 3-4)
Structural and individual independent variables

Explanatory variable	H	Model 3		Model 4	
		Coef.	SE	Coef.	SE
<i>Schooling (ref. secondary in Germany)</i>					
Middle/technical/other	+			0.074 **	(0.035)
Upper secondary (Abitur)	+			0.164 ***	(0.044)
Abroad: 10 or fewer years	?			0.094 **	(0.041)
Abroad: 11 years or more	+			0.134 ***	(0.040)
Still at school	?			-0.288 ***	(0.071)
No answer				0.008	(0.062)
<i>Further education (ref. none)</i>					
Vocational training abroad	+			0.036	(0.030)
Vocational train. in Germany	+			0.149 ***	(0.026)
Tertiary education abroad	+			0.077 **	(0.033)
Tertiary educ. in Germany	+			0.110 ***	(0.038)
<i>Experience</i>					
Age	+			0.001	(0.001)
Years since migration	+			0.015 ***	(0.004)
Years since migration squared	-			-0.000 ***	(0.000)
<i>Language skills (ref. poor/none)</i>					
Fairly	+			0.123 ***	(0.047)
Good	+			0.221 ***	(0.046)
Very good	+			0.225 ***	(0.050)
No answer	+			0.250 ***	(0.062)
<i>Health (ref. unhealthy)</i>					
Satisfactorily healthy	+			0.152 ***	(0.033)
Healthy	+			0.195 ***	(0.029)
<i>Family situation</i>					
Married	-			0.017	(0.023)
Has at least one child under 6 years old	-			-0.367 ***	(0.023)
Number of children aged 6-17	-			-0.036 ***	(0.011)
<i>Origin (ref. Middle-East/North Africa)</i>					
Western Europe	+	0.328 ***	(0.043)	0.185 ***	(0.042)
Eastern Europe	+	0.261 ***	(0.034)	0.142 ***	(0.033)
Ex-Soviet Union	+	0.264 ***	(0.039)	0.091 **	(0.039)
Ethnic German	+	0.273 ***	(0.038)	0.116 ***	(0.038)
Other origin		0.289 ***	(0.058)	0.168 ***	(0.055)
Born in Germany	+	0.236 ***	(0.035)	0.182 ***	(0.055)
Skills were recognized	+	0.154 ***	(0.032)	0.077 **	(0.032)
Feels disadvantaged due to origin	-	-0.008	(0.020)	0.014	(0.019)
Constant		0.392 ***	(0.031)	-0.011	(0.076)
Number of observations		2,319			
R-squared		0.0466		0.2304	

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Note: "H" represents the term hypothesis. The signs regard the effects compared to the ref. category.

Source: IAB-SOEP Migration Sample 2013, own calculations

Table 16
LPM with dependent variable LFS status (models 5-6)
Cultural and individual independent variables

Explanatory variable	H	Model 5		Model 6	
		Coef.	SE	Coef.	SE
<i>Schooling (ref. secondary in Germany)</i>					
Middle/technical/other	+			0.065 *	(0.035)
Upper secondary (Abitur)	+			0.156 ***	(0.043)
Abroad: 10 or fewer years	?			0.069 *	(0.038)
Abroad: 11 years or more	+			0.119 ***	(0.037)
Still at school	?			-0.297 ***	(0.071)
No answer				0.002	(0.061)
<i>Further education (ref. none)</i>					
Vocational training abroad	+			0.028	(0.030)
Vocational train. in Germany	+			0.133 ***	(0.026)
Tertiary education abroad	+			0.073 **	(0.031)
Tertiary educ. in Germany	+			0.111 ***	(0.037)
<i>Experience</i>					
Age	+			0.001	(0.001)
Years since migration	+			0.009 ***	(0.003)
Years since migration squared	-			-0.000 ***	(0.000)
<i>Language skills (ref. poor/none)</i>					
Fairly	+			0.136 ***	(0.046)
Good	+			0.242 ***	(0.044)
Very good	+			0.254 ***	(0.047)
No answer	+			0.236 ***	(0.060)
<i>Health (ref. unhealthy)</i>					
Satisfactorily healthy	+			0.148 ***	(0.033)
Healthy	+			0.191 ***	(0.029)
<i>Family situation</i>					
Married	-			0.027	(0.022)
Has at least one child under 6 years old	-			-0.361 ***	(0.023)
Number of children aged 6-17	-			-0.032 ***	(0.010)
<i>Religious denomination (ref. none)</i>					
Christian	-	0.092 ***	(0.026)	0.080 ***	(0.024)
Muslim	-	-0.179 ***	(0.032)	-0.061 **	(0.030)
Other religion		-0.170 ***	(0.053)	-0.075	(0.050)
<i>Religiosity level (ref. praying daily)</i>					
Never	+	0.097 ***	(0.028)	0.062 **	(0.026)
Monthly/less frequently	+	0.086 ***	(0.026)	0.050 **	(0.024)
Weekly	+	0.075 **	(0.033)	0.049	(0.031)
No answer		0.011	(0.081)	-0.023	(0.071)
Constant		0.661 ***	(0.023)	0.082	(0.077)
Number of observations		2,319		2,319	
R-squared		0.063		0.236	

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Note: "H" represents the term hypothesis. The signs regard the effects compared to the ref. category.

Source: IAB-SOEP Migration Sample 2013, own calculations

Table 17
LPM with dependent variable LFS status (model 7)
Complete model

Explanatory variable	H	Model 7 Coef.	SE
<i>Schooling (ref. secondary in Germany)</i>			
Middle/technical/other	+	0.065 *	(0.035)
Upper secondary (Abitur)	+	0.157 ***	(0.044)
Abroad: 10 or fewer years	?	0.088 **	(0.040)
Abroad: 11 years or more	+	0.120 ***	(0.040)
Still at school	?	0.283 ***	(0.072)
No answer		0.011	(0.062)
<i>Further education (ref. none)</i>			
Vocational training abroad	+	0.025	(0.030)
Vocational train. in Germany	+	0.135 ***	(0.027)
Tertiary education abroad	+	0.066 **	(0.033)
Tertiary educ. in Germany	+	0.094 **	(0.038)
<i>Experience</i>			
Age	+	0.001	(0.001)
Years since migration	+	0.015 ***	(0.004)
Years since migration squared	-	-0.000 ***	(0.000)
<i>Language skills (ref. poor/none)</i>			
Fairly	+	0.124 ***	(0.047)
Good	+	0.220 ***	(0.046)
Very good	+	0.224 ***	(0.049)
No answer	+	0.220 ***	(0.062)
<i>Health (ref. unhealthy)</i>			
Satisfactorily healthy	+	0.149 ***	(0.033)
Healthy	+	0.190 ***	(0.029)
<i>Family situation</i>			
Married	-	0.028	(0.022)
Has at least one child under 6 years old	-	-0.360 ***	(0.023)
Number of children aged 6-17	-	-0.033 ***	(0.011)
<i>Origin (ref. Middle-East/North Africa)</i>			
Western Europe	+	0.091 **	(0.046)
Eastern Europe	+	0.064 *	(0.036)
Ex-Soviet Union	+	0.013	(0.043)
Ethnic German	+	0.013	(0.043)
Other origin		0.130 **	(0.057)
Born in Germany	+	0.129 **	(0.056)
Skills were recognized	+	0.080 **	(0.032)
Feels disadvantaged due to origin	-	0.024	(0.019)
<i>Religious denomination (ref. none)</i>			
Christian	-	0.083 ***	(0.024)
Muslim	-	-0.052	(0.033)
Other religion		-0.078	(0.050)
<i>Religiosity level (ref. praying daily)</i>			
Never	+	0.061 **	(0.026)
Monthly-less frequently	+	0.046 **	(0.024)

Explanatory variable	H	Model 7 Coef.	SE
Weekly	+	0.042	(0.031)
No answer		-0.030	(0.072)
Constant		-0.004	(0.083)
Number of observations		2,319	
R-squared		0.243	

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Note: "H" represents the term hypothesis. The signs regard the effects compared to the ref. category.

Source: IAB-SOEP Migration Sample 2013, own calculations

Table 18
Linear regression with dependent variable LFP hours (models 8-10)
Individual, structural, and cultural independent variables

Explanatory variable	H	Model 8		Model 9		Model 10	
		Coef.	SE	Coef.	SE	Coef.	SE
<i>Schooling (ref. secondary Germany)</i>							
Middle/technical/other	?	2.938 ***	(1.104)	2.723 **	(1.124)	2.602 **	(1.143)
Upper secondary (Abitur)	+	-0.993	(1.492)	-1.274	(1.494)	-1.312	(1.495)
Abroad: 10 or fewer years	+	1.607	(1.408)	0.855	(1.467)	0.769	(1.473)
Abroad: 11 years or more	+	2.421 *	(1.345)	1.719	(1.442)	1.652	(1.461)
Still at school	?	-13.09 ***	(3.871)	-12.94 ***	(3.828)	-12.99 ***	(3.849)
No answer		-2.362	(2.782)	-1.866	(2.744)	-2.285	(2.715)
<i>Further education (ref. none)</i>							
Vocational training abroad	+	-0.102	(1.025)	-1.275	(1.045)	-1.265	(1.053)
Vocational train. in Germany	+	1.321	(0.866)	-1.814 *	(1.051)	-1.849 *	(1.068)
Tertiary education abroad	+	1.881 *	(1.144)	0.024	(1.207)	-0.168	(1.207)
Tertiary educ. in Germany	+	2.555 **	(1.241)	-0.641	(1.360)	-0.755	(1.377)
<i>Experience</i>							
Age	+	-0.073	(0.046)	-0.072	(0.048)	-0.071	(0.048)
Years since migration	+	0.001	(0.090)	-0.059	(0.142)	-0.069	(0.143)
Years since migration squared	-	-0.002	(0.003)	-0.001	(0.004)	0.000	(0.004)
<i>Language skills (ref. poor/none)</i>							
Fairly	+	2.246	(2.255)	2.197	(2.236)	2.301	(2.262)
Good	+	3.650 *	(2.139)	2.944	(2.115)	3.005	(2.141)
Very good	+	5.521 **	(2.211)	4.459 **	(2.214)	4.509 **	(2.243)
No answer		3.327	(2.486)	2.819	(2.495)	2.589	(2.529)
<i>Health (ref. unhealthy)</i>							
Satisfactorily healthy	+	1.088	(1.225)	0.965	(1.209)	0.735	(1.216)
Healthy	+	2.246 **	(1.106)	2.122 *	(1.093)	2.003 *	(1.103)
<i>Family situation</i>							
Married	-	-2.266 ***	(0.769)	-2.604 ***	(0.760)	-2.521 ***	(0.768)
Has at least one child under 6 years old	-	-5.667 ***	(1.016)	-5.732 ***	(1.014)	-5.682 ***	(1.018)
Number of children aged 6-17	-	-2.395 ***	(0.457)	-2.221 ***	(0.466)	-2.203 ***	(0.467)
<i>Origin (ref. Middle-East/North Africa)</i>							
Western Europe	+			0.240	(1.642)	-0.307	(1.833)

Explanatory variable	H	Model 8		Model 9		Model 10	
		Coef.	SE	Coef.	SE	Coef.	SE
Eastern Europe	+			0.735	(1.373)	0.366	(1.496)
Ex-Soviet Union	+			0.514	(1.539)	-0.208	(1.675)
Ethnic German	+			2.019	(1.457)	1.461	(1.624)
Other origin				-0.030	(2.071)	-0.649	(2.154)
Born in Germany	+			0.438	(2.014)	0.086	(2.069)
Skills were recognized	+			2.899 **	(1.133)	2.853 **	(1.145)
Feels disadvantaged due to origin	-			0.152	(0.644)	0.151	(0.656)
Job corresponds with training	+			4.192 ***	(0.850)	4.088 ***	(0.860)
<i>Religious denomination (ref. none)</i>							
Christian	-					-1.355	(0.835)
Muslim	-					-1.911	(1.245)
Other religion						-1.562	(1.834)
<i>Religiosity level (ref. praying daily)</i>							
Never	+					0.325	(0.933)
Monthly-less frequently	+					0.696	(0.839)
Weekly	+					-0.686	(1.123)
No answer						1.845	(3.132)
Constant		26.50 ***	(2.910)	27.16 ***	(3.226)	28.69 ***	(3.526)
Number of observations		1,282		1,282		1,282	
R-squared		0.155		0.181		0.185	

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Note: "H" represents the term hypothesis. The signs regard the effects compared to the ref. category.

Source: IAB-SOEP Migration Sample 2013, own calculations

Table 19
Linear reg. with regressand LFP hours, interaction effects (model 11)
Independent variables: Further education and presence of children under 6 years old

Explanatory variables	Model 11	
	Coef.	SE
<i>Further education</i>		
Voc. training abroad	-0.854	(1.034)
Voc. training in Germany	4.180***	(0.901)
University abroad	1.705	(1.182)
University Germany	4.337***	(1.215)
<i>Presence of children</i>	-3.998**	(1.923)
<i>Interaction effects</i>		
Voc. training abroad # Presence of children	-1.568	(3.549)
Voc. training Germany # Presence of children	-3.817	(2.531)
University abroad # Presence of children	0.215	(3.240)
University Germany # Presence of children	0.272	(2.890)
Constant	27.16***	(0.628)
Number of observations	1,282	
R-squared	0.049	

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Source: IAB-SOEP Migration Sample 2013, own calculations

Table 20**LPM with regressand LFP status, interaction effects (model 12)****Independent variables: Acknowledgment of qualifications and area of origin**

Explanatory variables	Model 12	
	Coef.	SE
Skills recognized	0.295***	(0.036)
<i>Origin</i>		
Eastern Europe	-0.061	(0.042)
Ex-Soviet Union	-0.058	(0.046)
Ethnic German	-0.028	(0.045)
Middle-East and North Africa	-0.319***	(0.045)
Others	-0.034	(0.065)
Born in Germany	-0.078*	(0.041)
<i>Interaction effects</i>		
Skills recognized # Eastern Europe	-0.097	(0.064)
Skills recognized # Ex-Soviet Union	-0.093	(0.078)
Skills recognized # Ethnic German	-0.261***	(0.081)
Skills recognized # Middle-East/North Africa	-0.126	(0.172)
Skills recognized # Others	-0.091	(0.134)
Skills recognized # Born in Germany	-0.350*	(0.192)
Constant	0.705***	(0.036)
Number of observations	2,319	
R-squared	0.049	

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Source: IAB-SOEP Migration Sample 2013, own calculations

Table 21**LPM with regressand LFP status, interaction effects (model 13)****Independent variables: Further education and Western Europe (dummy var.)**

Explanatory variables	Model 13	
	Coef.	SE
<i>Further education</i>		
Voc. training abroad	0.170***	(0.031)
Voc. training Germany	0.227***	(0.027)
University abroad	0.181***	(0.034)
University Germany	0.304***	(0.034)
Western Europe	0.243***	(0.051)
<i>Interaction effects</i>		
Western Europe # Voc. training abroad	-0.308**	(0.139)
Western Europe # Voc. training Germany	-0.298**	(0.124)
Western Europe # University abroad	-0.119	(0.082)
Western Europe # University Germany	-0.427***	(0.147)
Constant	0.496***	(0.017)
Number of observations	2,319	
R-squared	0.053	

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Source: IAB-SOEP Migration Sample 2013, own calculations

Table 22
LPM with regressand LFP status, interaction effects (model 14)
Independent variables: Religious affiliation and further education

Explanatory variables	Model 14	
	Coef.	SE
<i>Religious affiliation</i>		
Christian	0.133***	(0.044)
Muslim	-0.129***	(0.046)
Other religion	-0.191***	(0.068)
<i>Further education</i>		
Voc. training abroad	0.162**	(0.068)
Voc. training Germany	0.176***	(0.058)
University abroad	0.249***	(0.058)
University Germany	0.180***	(0.066)
<i>Interaction effects</i>		
Christian # Voc. training abroad	-0.110	(0.078)
Christian # Voc. training Germany	-0.038	(0.067)
Christian # University abroad	-0.190***	(0.072)
Christian # University Germany	0.015	(0.079)
Muslim # Voc. training abroad	-0.111	(0.109)
Muslim # Voc. training Germany	0.006	(0.083)
Muslim # University abroad	-0.234**	(0.118)
Muslim # University Germany	0.221*	(0.131)
Other religion # Voc. training abroad	0.070	(0.189)
Other religion # Voc. training Germany	0.167	(0.159)
Other religion # University abroad	0.094	(0.159)
Other religion # University Germany	0.496***	(0.087)
Constant	0.514***	(0.038)
Observations	2,319	
R-squared	0.089	

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Source: IAB-SOEP Migration Sample 2013, own calculations

Table 23
Frequencies of labor participation from 32 years since migration

	Labor participation		
	No	Yes	Total
32	0.09	0.03	0.06
33	0.03	0.14	0.09
34	0.15	0.16	0.16
35	0.18	0.05	0.11
36	0.03	0.03	0.03
37	0.09	0.08	0.09
38	0.12	0.08	0.10
39	0.03	0.00	0.01
40	0.06	0.05	0.06
41	0.00	0.11	0.06
43	0.03	0.08	0.06
44	0.06	0.11	0.09
48	0.09	0.00	0.04
49	0.00	0.05	0.03
53	0.00	0.03	0.01
59	0.03	0.00	0.01
Total	1.00	1.00	1.00

Source: IAB-SOEP Migration Sample 2013, own calculations

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